



HIGHWAY MAINTENANCE

REQUEST FOR PROPOSAL

Contract Maintenance Area 27

Southern Region

West Calgary, Black Diamond, Chain Lakes, Nanton,
and Aldersyde Areas

HIGHWAY MAINTENANCE

Request for Proposal

TABLE OF CONTENTS

- A) *Instructions to Prospective Contractors***
- B) *Request for Proposal Details***
- C) *Winter Service Delivery (WSD) Details***
- D) *Motor Grader Service Delivery Details for Gravel Surfaces***
- E) *Special Provisions***
- F) *WSD Spread Sheets***
- G) *Specification Amendments***
- H) *Unit Price Schedule***
- I) *Local Features***
- J) *Sample Reporting Forms***
- K) *Procedures for Maintenance Contract Performance Measures***
- L) *EMP Guidelines for Hwy. Maintenance Yards***
- M) *Maps***
 - *Contract Maintenance Area Map***
 - *Plow Beat Map***
- N) *Standard Lease Agreement***

TABLE OF CONTENTS

1.0 INSTRUCTIONS FOR SUBMITTING PROPOSALS 1

1.1 DATE AND TIME OF PROPOSAL SUBMISSION 1

1.2 ALLOWABLE NUMBER OF PROPOSALS AND CMAS 1

1.3 GENERAL REQUIREMENTS FOR PROPOSAL SUBMISSION 1

 1.3.1 *Packaging and Number of Copies* 1

 1.3.2 *Sample Mailing Address For Submission of Proposal* 2

 1.3.3 *Label for Envelopes* 3

 1.3.4 *Electronic Submission Of Documents* 3

1.4 SPECIFIC REQUIREMENTS CONCERNING CONTENT OF THE PROPOSAL - 4 ENVELOPES 3

 1.4.1 *Required Contents of Envelope 1* 4

 1.4.2 *Required Contents of Envelope 2* 5

 1.4.3 *Contractor Previous Performance/Experience* 5

 1.4.4 *Required Contents of Envelope 3* 6

 1.4.5 *Required Contents of Envelope 4* 6

1.5 OPERATIONS MANAGER, CALGARY 7

1.6 INFORMATION PROVIDED ON THE COMPACT DISC (CD) 7

1.7 PROJECT INQUIRIES 8

1.8 ADDENDA 8

1.9 PROPOSAL CHANGES 8

1.10 CONTRACT FORMS 8

1.0 INSTRUCTIONS FOR SUBMITTING PROPOSALS

1.1 DATE AND TIME OF PROPOSAL SUBMISSION

Prospective Contractors must submit their response to the Request for Proposal (RFP) for this Contract to Alberta Infrastructure and Transportation, Program Management Branch, by **14:01:00 (MST) on May 17, 2005**, using the addressing label provided on the CD of this RFP package.

1.2 ALLOWABLE NUMBER OF PROPOSALS AND CMAS

The Prospective Contractor may submit no more than one Proposal for each individual Contract Maintenance Area (CMA) and no more than one Proposal for each specific combination of CMAs. Each combination of CMAs will be considered as a separate Proposal and must be submitted under a separate cover.

The maximum number of CMAs allowed per Contractor is nine (9). A Prospective Contractor with an existing Department highway maintenance contract that terminates after July 31, 2006 will have each CMA in the existing contract included in the allowable number of CMAs.

1.3 GENERAL REQUIREMENTS FOR PROPOSAL SUBMISSION

1.3.1 Packaging and Number of Copies

The Prospective Contractor, when submitting each Proposal, must:

- Provide each Proposal in a single package addressed using the label as shown in Section 1.3.2. (this label is provided in electronic form on the CD in the file "Labels.pdf")
- Provide the information required in 4 separate sealed envelopes or sealed parcels, which must include the forms identified by Alberta Infrastructure and Transportation as a requirement for the Proposal (required contents specified in and Section 1.4 of this Instructions to Prospective Contractors).
- Ensure that Envelopes 1, 3 and 4 contain one bound set of the Prospective Contractor's response, and that Envelope 2 contains four bound and one unbound set of the Prospective Contractor's response.

1.3.2 Sample Mailing Address For Submission of Proposal

Prospective Contractor's Name: _____

Address: _____

Proposal for Highway Maintenance Work

**Alberta Infrastructure and Transportation
Program Management Branch
Attention: Director
Tender Administration
Tender Deposit Counter
1st Floor, Twin Atria Building
4999 - 98 Avenue
Edmonton, Alberta
T6B 2X3**

CMA _____

PROPOSAL TO BE SUBMITTED BY:

14:01:00 (MST) on May 17, 2005

1.3.3 Label for Envelopes

The labels are provided in electronic form on the CD included with this package. They must be affixed to each of the four envelopes to indicate the envelope number (1, 2, 3 or 4), the Prospective Contractor's company name and the Contract maintenance areas included in the Proposal

SAMPLE: (Included on CD)

<p>Envelope Number _____</p> <p>Prospective Contractor Name</p> <p>_____</p> <p>CMA's included in the Proposal:</p> <p>CMA No. _____</p> <p>CMA No. _____</p> <p>CMA No. _____</p>
--

1.3.4 Electronic Submission Of Documents

The unit price schedule and the winter service delivery spreadsheets of the Prospective Contractor's Proposal shall be submitted as both a hard copy and electronically (CD). The electronic submissions are required to facilitate the evaluation of Proposals only. In the event of a discrepancy between electronic and hard copy submissions, the hard copy shall govern.

1.4 SPECIFIC REQUIREMENTS CONCERNING CONTENT OF THE PROPOSAL - 4 ENVELOPES

The Prospective Contractor will be required to submit each of his Proposal package(s) divided into four distinct envelopes. To ensure the validity of his submission, the Prospective Contractor must ensure that the correct information and number of copies is placed in the appropriate envelope.

1.4.1 Required Contents of Envelope 1

The Prospective Contractor must provide the following information in Envelope 1 as outlined in Section 3.5 of the RFP Details document.

- The form titled “Prospective Contractor’s Certification of Information Provided”, which must be completed fully and initialed by an authorized signing officer of the Prospective Contractor’s company.
- The completed form, “Prospective Contractor’s Proposal Agreement”, which must be signed and sealed by an authorized signing officer of the Prospective Contractor’s company.
- Written commitment to provide consent of interested parties to allow the Department's use of snow clearing equipment and facilities in the event of Contractor default or Contract termination.
- A consent of surety from the Prospective Contractor’s surety agreeing to furnish the required labour and material payment bond in the amount equal to the number of CMAs times \$500,000.
- A signed letter of intent from a financial institution agreeing to provide an irrevocable letter of credit in an amount equal to the number of CMAs times \$250,000 payable to the "Minister of Finance", or consent of Surety to furnish a forfeiture bond in an amount equal to the number of CMAs times \$250,000.
- A signed letter of intent from an insurance company agreeing to provide the required insurance coverage in accordance with the General Specifications.
- Written confirmation of enrollment or copy of certificate indicating accreditation in an appropriate Safety Certification Program (details of requirements are specified in Section 51.2.8.1 of Specification 51.2 General, For Maintenance Work).

Further information regarding Safety Certification may be obtained from:

The Alberta Construction Safety Association
#101, 13025 - St. Albert Trail
Edmonton, AB, T5L 5G2
Telephone: (780) 453-3311 or 1-800-661-2272
Fax: (780) 455-1120
www.acsa-safety.org

- Written confirmation or copy of certificate indicating that the Prospective Contractor is a legally registered company.
- List of proposed Assignments and Sub-Contracts

- A signed letter stating that the completed Unit Price Schedule(s) meet the following requirements:
 - the ratio of the total fixed costs to the total fixed costs plus provisional costs does not exceed 45% for each CMA. (Definitions of fixed costs and provisional costs are found in Section 1.1 of the RFP Details document.)
 - the Unit Price Schedule(s) has not been elaborated upon, or qualified in any fashion.
 - in the case of multiple CMAs in one Proposal, the unit prices bid are the same in all the CMAs for all bid items, with the exceptions listed in Section 1.4.4.
- Written notice of the Prospective Contractor's intention regarding Voluntary Partnering as discussed in Section 51.2.38 of Specification 51.2 General, For Maintenance Work.
- A signed Receipt of Addendum form for any addenda that may be issued during the pre-submission period.

1.4.2 Required Contents of Envelope 2

For each Proposal, the Prospective Contractor must provide information on how his company's Work Execution Plan will meet the minimum requirements as detailed in Section 3.6 of the RFP Details document. To meet the requirements of Envelope 2, the Prospective Contractor must organize and present his response by using headings and referencing section numbers as outlined in the summary table included in Section 3.5.3 of the RFP Details document.

The Prospective Contractor shall include this summary table in his Envelope 2 submission and shall provide the corresponding page numbers of his proposal which address each minimum requirement specified.

The Prospective Contractor shall limit the contents of Envelope 2 to no more than 100 pages excluding the paper copies of the Winter Service Delivery Tables.

The Prospective Contractor may also provide additional information in the form of appendices attached to the Work Execution Plan; however, the department may limit the evaluation to the first 150 pages of the plan.

1.4.3 Contractor Previous Performance/Experience

The Department will use the existing information to assess and score the performance of the maintenance Contractors that are currently working with the Department, as outlined in Section 3.5.2 of the RFP Details document.

Prospective Contractors who have not had a highway maintenance contract with Alberta Infrastructure and Transportation shall provide details of their previous contracting experience in highway construction or maintenance in order for the Department to assess and score their previous experience.

1.4.4 Required Contents of Envelope 3

The Prospective Contractor must complete and enclose in Envelope 3, both an electronic copy and a hard copy printed from the electronic copy, of the Unit Price Schedule for each CMA included in the Prospective Contractor's Proposal. The Prospective Contractor must complete every unshaded cell in the unit price column, and any blank cell in the quantity column of the Unit Price Schedule. Also, the Prospective Contractor shall identify his sand and salt storage locations in the Unit Price Schedule, and the corresponding quantities and unit prices.

The extension column of the Unit Price Schedule will be automatically calculated and populated within the spreadsheet, and the yearly totals for both fixed and provisional costs will be summed. The percentages of total fixed costs and total provisional costs will also be calculated and displayed.

In the case of multiple CMAs in one Proposal, the unit prices bid shall be the same in all the CMAs for all bid items, with the exception of the following CMA specific items:

- Bid Items 1410 to 1419 Supply and Stockpile Sand to ____
- Bid Items 1470 to 1479 Supply of Sodium Chloride to ____
- Bid Items 3001 - Highway Maintenance Work per CMA ____
- Bid Items 4401 - Indirect Operating Costs per CMA ____
- Bid Items 4410 – General Liability Insurance Premium per CMA ____

Note

Failure to complete all requirements for each component of the Unit Price Schedule may result in the Proposal being rejected. The Prospective Contractor shall note that Envelope 3 will only contain the Unit Price Schedule. The Prospective Contractor must not present any documentation, which will elaborate upon or qualify his response to the Unit Price Schedule. Any such elaboration or qualification may result in the Proposal being rejected.

1.4.5 Required Contents of Envelope 4

The Prospective Contractor must provide the following financial information in Envelope 4, as defined in Section 3.3.6 of the RFP Details document:

- Ownership and structure of the business submitting the proposal.
- Eligibility, which will include a statement indicating the number of contracts already, awarded to the firm(s) or principals of the firm.

- If the company is an existing business, a financial statement for each of the previous 3 years which includes:
 - Statement of Earnings
 - Balance Sheet
 - Statement of Cash Flows
- Pro Forma Statements which will allow the Prospective Contractor's anticipated financial projection for the 5 years of the Contract and includes for each of the years of the Contract:
 - Statement of Earnings
 - Balance Sheet
 - Statement of Cash Flows
- Where appropriate a statement of net worth and personal credit rating.
- A statement of any undertaking from any investors and lending institutions.

1.5 OPERATIONS MANAGER, CALGARY

Following is the Department contact person for site specific questions on CMAs 27, 28 & 30:

<p>Bruce Atwell, Operations Manager, Calgary Phone: (403) 297-7661 Fax: (403) 297-7682</p>

1.6 INFORMATION PROVIDED ON THE COMPACT DISC (CD)

In addition to the Return Labels, Unit Price Schedule Spreadsheets and Winter Service Delivery Spreadsheets, the following information is provided on the CD included with the RFP package.

- historical data of work quantities,
- weighted average unit prices of existing highway maintenance contracts
- amount of work ordered under specification 53.39, Highway Maintenance Work,
- amount of work ordered for Park Roads and Water Management Infrastructure,
- general locations of highway lighting infrastructure,
- annual Contract values,
- pavement surface summary report (structure condition),
- the Department's Salt Management Plan
- information on the Department's Maintenance Contract Management System (MCMS)

1.7 PROJECT INQUIRIES

All inquiries regarding the Specifications and Request for Proposal submission should be directed to Mr. Moh Lali, Director, Highway Operations, Technical Standards Branch, 2nd Floor, Twin Atria Building, 4999 - 98 Avenue, Edmonton, Alberta, Telephone (780) 415-1083.

1.8 ADDENDA

Addenda, when required, will be issued and will form part of the Request for Proposal, General Specifications or Technical Specifications as appropriate. The Prospective Contractor must acknowledge receipt of addenda by signing the "Receipt of Addenda" form provided with each addendum. The individual items included in the addendum will be added, deleted or changed in accordance with the instructions contained in the addendum letter. The Prospective Contractor must acknowledge addenda by including each "Receipt of Addenda" form in Envelope 1.

1.9 PROPOSAL CHANGES

The Prospective Contractor will not be permitted to introduce or request a change to his Proposal after the date and time set by the Department for the submission of Proposals.

1.10 CONTRACT FORMS

The following sample forms are enclosed herewith and are divided into the following two groups:

Group 1, forms to be included in Envelope 1 of the Proposal:

- Prospective Contractor's Certification of Information Provided
- Prospective Contractor's Proposal Agreement

Group 2, forms provided for the Prospective Contractor's information. The Department will provide copies of these forms to the preferred Prospective Contractor to be submitted as part of the Mobilization Plan.

- Forfeiture Bond
- Statutory Declaration
- Irrevocable Letter of Credit when used for Performance Security
- Labour and Materials Payment Bond

To ensure that the Prospective Contractor's proposal submission includes all mandatory information and documents as specified for in the Request for Proposal, the Prospective Contractor shall have an authorized signing officer of his company initial in the space provided that the following required information has been provided in an acceptable form and is contained in the appropriate envelope. By placing his initial, the authorized signing officer certifies that:

(Initials)

- CMAs included in the proposal are: _____

- All 4 envelopes have been submitted _____
- The company has not included any conditions in the Proposal that alter General or Technical Specifications _____

ENVELOPE NO: 1 CONTAINS:

Requirements	Reference	Initials
A completed "Prospective Contractor's Proposal Agreement" form	Section 1.10 of the Instructions to Bidders	
Commitment to provide consent of interested parties to allow the Department's use of snow clearing equipment and facilities in the event of Contractor default or Contract termination	General Specification 51.2.23.5	
Consent of Surety for the labour and material bond in the amount required.	Section 1.4.1 of the Instructions to Bidders	
Consent of a financial institution for an irrevocable letter of credit or a certified cheque, bank draft or money order; or a consent of surety for a forfeiture bond in the amount required for Performance Security.	Section 1.4.1 of the Instructions to Bidders	
Signed letter of intent from an insurance company	Section 1.4.1 of the Instructions to Bidders	
Confirmation that the Prospective Contractor has completed or has initiated the process for safety accreditation	Section 1.4.1 of the Instructions to Bidders	
Confirmation that the company is legally registered with the Corporate Registry	Section 1.4.1 of the Instructions to Bidders	
List of proposed Assignments and Subcontracts	Section 2.2 of the RFP document	
UPS(s) - confirmation that fixed costs do not exceed the 45% of total annual contract amount; the UPS(s) has not been qualified in any fashion; and all unit prices are identical in multiple CMA proposals, with the exceptions noted in Section 1.4.4 of the Instructions to Bidders.	Section 1.4.1 of the Instructions to Bidders	
Prospective Contractor's intention regarding Voluntary Partnering	General Specification 51.2.38	
Signed Receipt of Addendum form(s)	Section 1.8 of the Instructions to Bidders	

ENVELOPE 2 CONTAINS:

Requirements	Reference	Initials
Prospective Contractor's Work Execution Plan which addresses and meets all minimum requirements specified	Section 3.6 of the RFP Document	
Summary form checklist for Work Execution Plan, including page number references of the proposal submission	Section 3.5.3 of the RFP Document	
Completed Winter Service Delivery spreadsheets for each CMA of the proposal	Winter Service Delivery Details Document	
Motor grader circuit plans for each CMA of the proposal	Motor Grader Service Delivery Details Document	
Prospective Contractors Previous Experience	Section 3.5.2 of the RFP Document	

ENVELOPE 3 CONTAINS:

Requirements	Reference	Initials
Completed Unit Price Schedule (electronic & hard copy) for each CMA of the proposal indicating bid item unit prices. Also, quantities are indicated for those bid items where the Prospective Contractor is required to provide them, and storage locations for sand and salt.	Section 1.4.4 of the Instructions to Bidders	

ENVELOPE 4 CONTAINS:

Requirements	Reference	Initials
Ownership information	Section 3.3.6 of the RFP Document	
Eligibility information	Section 3.3.6 of the RFP Document	
Financial Statements: Statement of Earnings, Balance Sheet & Statement of Cash Flow	Section 3.3.6 of the RFP Document	
Pro Forma Statements: Statement of Earnings, Balance Sheet & Statement of Cash Flow	Section 3.3.6 of the RFP Document	
A statement of net worth and personal credit rating	Section 3.3.6 of the RFP Document	
A statement of any undertaking from any investors and lending institutions	Section 3.3.6 of the RFP Document	

**Prospective Contractor's Proposal Agreement
(To be Included in Envelope 1)**

CMAAs included in this proposal are: _____, _____, _____,

Should this Proposal be accepted, the undersigned agrees to enter into a written agreement with the Minister of Infrastructure and Transportation of the Province of Alberta for the faithful performance of the Work as outlined in this Proposal. The undersigned further agrees to execute and perform the Work in accordance with the Special Provisions, Specification Amendments, Plans, General Specifications, and the Technical Specifications.

The undersigned further agrees that the Proposal will remain open for consideration by the Department for 90 days.

An authorized signing officer must sign in the space provided below and then the document must be either sealed with the company seal, or the Affidavit of Execution of the Witness must be completed. Failure to comply will result in the Proposal being rejected.

AFFIDAVIT OF EXECUTION	
CANADA PROVINCE OF ALBERTA TO WIT:	
<p>I, _____ of the City of _____ in the Province of _____ make oath and say:</p> <p>(1) That I was personally present and did see _____ named in the annexed instrument, and who is known to me to be the person named therein, duly sign and execute the same for the purposes named therein; that the same was executed at the _____ of _____ said Province, and that I am the subscribing witness thereto;</p> <p>(2) That I personally know the said _____ and he is in my belief of the full age of eighteen years.</p> <p>SWORN before me at the City of _____ in the Province of Alberta, this _____ day of _____ 20____.</p>	(Seal)
	Prospective Contractor's Name (Company Name)
	Authorized Signature
	Signature Printed
	Address
	Address Postal Code
<p align="center">Witness Sign Here</p> <p align="center">A Commissioner for Oaths in and for the Province of Alberta</p>	Prospective Contractor's Telephone Number
	Witness (Signature)
	Witness (Printed)
	Date

Table of Contents

1.0	INTRODUCTION	1
1.1	DEFINITIONS AND INTERPRETATIONS	2
1.2	USAGE OF FACILITIES OWNED OR PREVIOUSLY OWNED BY THE GOVERNMENT OF ALBERTA	3
1.3	ELIGIBILITY OF PROSPECTIVE CONTRACTORS	4
1.4	PRE-SUBMISSION MEETING	4
1.5	SELECTION OF THE PREFERRED PROPOSAL	4
1.6	INTRODUCTION OF DOCUMENTS	4
1.6.1	<i>General</i>	4
1.6.2	<i>Documents Containing Mandatory Requirements or Supplemental Information</i>	5
1.6.2.1	Documents which contain mandatory requirements are included in this Request for Proposal	5
1.6.2.2	Documents Containing Supplemental Information	6
1.6.3	<i>Documents Containing Mandatory Requirements Common to All Contracts and RFPs</i>	7
1.6.3.1	General Specifications	7
1.6.3.2	Technical Specifications	7
1.6.3.3	Standard Drawings	7
1.6.3.4	Alberta Transportation Products List	8
2.0	CONTRACT	9
2.1	DURATION OF CONTRACT	9
2.2	SUBCONTRACTS AND ASSIGNMENTS	9
2.3	CONTRACTS FOR INDIVIDUAL OR MULTIPLE CONTRACT MAINTENANCE AREAS	10
2.3.1	<i>Allowable Number of CMAs</i>	10
2.3.2	<i>Proposals for Multiple or Individual CMAs</i>	10
2.3.3	<i>Proposals From A Prospective Contractor With An Existing Highway Maintenance Contract</i>	10
3.0	PROPOSAL EVALUATION	11
3.1	OVERVIEW OF PROPOSAL EVALUATION OBJECTIVES	11
3.2	OVERVIEW OF PROPOSAL EVALUATION PROCESS	11
3.3	PROPOSAL EVALUATION AND CONTRACT AWARD – 4 ENVELOPE PROCESS	11
3.3.1	<i>Phase 1 - Compliance with Specifications (Envelope 1)</i>	12
3.3.2	<i>Phase 2 – Work Execution Plan and Previous Performance/Experience (Envelope 2)</i>	12
3.3.3	<i>Phase 3 - Price Analysis (Envelope 3)</i>	12
3.3.4	<i>Phase 4 - Identifying the Preferred Proposal</i>	13
3.3.5	<i>Phase 5 – Meeting to Clarify any Details Concerning the Proposal</i>	13
3.3.6	<i>Phase 6 – Financial Analysis (Envelope 4)</i>	13
3.3.6.1	Ownership	13
3.3.6.2	Eligibility	14
3.3.6.3	Financial Statements	14
3.3.6.4	Pro Forma Statements	14
3.3.6.5	Financing	15
3.3.7	<i>Phase 7 – Mobilization Plan</i>	15
3.3.8	<i>Phase 8 - Contract Award</i>	15
3.4	IMPLEMENTATION OF MOBILIZATION PLAN	16
3.4.1	<i>Progress Updates for Mobilization Plan</i>	16
3.4.2	<i>Failure to Deliver Equipment, Operators or Sand/Salt Materials in Accordance with the Mob. Plan</i>	16
3.4.3	<i>Permanently Relocating a Shop</i>	17
3.5	EVALUATION CRITERIA	17
3.5.1	<i>Envelope No: 1 - Compliance with Specifications</i>	17
3.5.2	<i>Previous Performance/Experience</i>	18
3.5.2.1	Existing/ Previous Department Highway Maintenance Contractors	18
3.5.2.2	New Contractors	19
3.5.3	<i>Envelope No: 2 - Work Execution Plan Minimum Requirements</i>	20
3.5.4	<i>Envelope No: 3 - Price Analysis</i>	23
3.5.5	<i>Envelope No: 4 – Financial Analysis</i>	23
3.6	DETAILS FOR EVALUATION OF WORK EXECUTION PLAN (ENVELOPE 2)	23

3.6.1	<i>General</i>	23
3.6.2	<i>Specified Minimum Requirements</i>	24
3.6.3	<i>Key Personnel</i>	24
3.6.3.1	Organization Chart.....	24
3.6.3.2	Contract Manager	25
3.6.3.3	Superintendents.....	25
3.6.3.4	Foremen	26
3.6.3.5	Equipment Operators	27
3.6.4	<i>Work Planning</i>	27
3.6.4.1	Minimum Requirements	27
3.6.5	<i>Snow/Ice Control Plan</i>	27
3.6.5.1	Salt and Sand Storage Site Plans.....	28
3.6.5.2	Snowplow Truck Storage Sites	29
3.6.5.3	Environmental Management Plans (EMPs)	30
3.6.5.4	Salt Management Plans.....	30
3.6.5.5	Winter Service Delivery.....	30
3.6.5.6	Motor Graders For Snow/Ice Control on Paved Surfaces	32
3.6.6	<i>Motor Graders For Gravel Surfaces</i>	32
3.6.6.1	Minimum Requirements	32
3.6.7	<i>Repair Of Equipment</i>	32
3.6.7.1	Minimum Requirements	33
3.6.8	<i>Staff Training</i>	33
3.6.8.1	Minimum Requirements	33
3.6.9	<i>Safety Plan</i>	33
3.6.9.1	Minimum Requirements	33
3.7	DETAILS FOR ANALYSIS OF PRICING.....	34
3.7.1	<i>Total CMA Cost</i>	34
3.7.2	<i>Scenario #1</i>	35
3.7.3	<i>Scenario #2</i>	35
3.7.4	<i>Scenario #3</i>	36
3.7.5	<i>Unbalanced Bid Check</i>	36

1.0 INTRODUCTION

In 1996, Alberta Infrastructure and Transportation (then Alberta Transportation and Utilities) signed Highway Maintenance Contracts with several contractors, for the outsourcing of all highway maintenance activities in the province of Alberta. Originally, these contracts were for a 5-year term. However, to allow a staggered approach in subsequent rounds of re-tendering, the termination dates for several of the original contracts were extended, for varying periods to a maximum of 3 years.

Since May of 2000, Alberta Infrastructure and Transportation has been in the process of re-tendering the highway maintenance contracts in various areas of the province. This is being accomplished through a series of Request for Proposals (RFPs) of which this RFP is a component. Each RFP contains a single Contract Maintenance Area (CMA). The area boundaries of individual CMAs have been retained from the original contracts.

Major changes for the round of RFPs which commenced in 2000 included the addition of secondary highways into the Provincial Highway System and the use of a reduced number of government maintenance facilities.

Maintenance of the secondary highway network now falls under the jurisdiction of Alberta Infrastructure and Transportation. Previously, this maintenance work had been administered by each municipality for its' respective area. With the inclusion of secondary highways in the new highway maintenance contracts, quantities of work have increased substantially.

The government has sold most of its maintenance facilities (sand/salt and snowplow truck storage sites). Previously these facilities have been leased to the contractors. For the new contracts, Contractors are totally responsible for providing suitable sites/facilities to accommodate all maintenance materials and equipment. However, a select few government sites/facilities may be available for lease by the Contractor for a limited time or the full term of the contract.

There have been three major changes to the re-tendering process since the last round of RFPs issued in 2003. The first major change is the increase in the number of CMAs allowed - from seven (7) to nine (9) - per maintenance contractor.

The second major change is regarding evaluation of the prospective Contractors' work execution plans. Work Execution Plans (Envelope 2) will no longer be scored but will be based on a pass/fail system. The prospective Contractors are required to meet a set of minimum requirements specified for several different categories. Failure to sufficiently meet a minimum requirement may result in rejection of a proposal.

The third major change is the increased emphasis on the prospective Contractors' unit prices (Envelope 3). The scoring process for Envelope 3 will remain the same, however the total number of points available has increased from 775 to 950, out of 1000. The remaining 50 points will be attributed to the prospective Contractors' previous performance.

This RFP outlines highway maintenance requirements in a specific CMA, any government maintenance facilities available for use by a contractor and applicable rental rates, general requirements concerning the submission of a Proposal, and the system used to evaluate Proposals.

1.1 DEFINITIONS AND INTERPRETATIONS

In addition to the definitions contained in Specification 51.2 General (for Maintenance Work), the following definitions shall apply to this Request for Proposal:

Contract Maintenance Area

“Contract Maintenance Area” or “CMA” means a network of provincial highways within a defined geographical area on which maintenance activities are performed.

Shop

“Shop” means a location where individual sand and salt stockpiles or combined sand and salt stockpiles and/or snowplow trucks being used for highway maintenance activities are situated.

Existing Contractor

“Existing Contractor” means the individual, partnership, or corporation currently holding the Department highway maintenance contract for any CMA(s) at the time of this Request for Proposal.

Previous Contractor

“Previous Contractor” means an individual, partnership or corporation which previously held a Departmental Highway Maintenance contract for any CMA(s) but does not hold such a contract at the time of this Request for Proposal.

Request for Proposal

“Request for Proposal” or “RFP” means the document issued by the Department requesting proposals from Prospective Contractors to perform the Work in accordance with the terms and conditions of the RFP, Special Provisions, Plans, Specifications and Specification Amendments.

Total Fixed Costs

“Total Fixed Costs” means the summation of the following 6 items from the Unit Price Schedule:

- 1105 - Snow Removal and Ice Control (Truck) “Availability Rate” (unit price x truck availability days),
- 1106 - Indoor Heated Storage (unit price x number of trucks x truck availability days),
- 1115 - Snow Removal and Ice Control (Operator) “Availability Rate” (unit price x operator availability days),

- 3001 - Highway Maintenance Work (unit price x 12 months),
- 4401 - Contractor Indirect Operating Costs (unit price x 12 months), and
- 4410 - General Liability Insurance Premium (lump sum yearly price)

Provisional Quantities

“Provisional Quantities” means the estimated quantities of work the Department expects will be performed during a full fiscal year of the contract.

Total Provisional Costs

“Total Provisional Costs” means the summation of all bid items from the Unit Price Schedule which have a provisional quantity provided, multiplied by the corresponding bid item unit price (excluding any fixed cost items).

Department Designate

“Department Designate” means the person assigned by the Department to administer the process for evaluation of Proposals.

1.2 USAGE OF FACILITIES OWNED OR PREVIOUSLY OWNED BY THE GOVERNMENT OF ALBERTA

Not all government owned facilities have the same lease status and availability throughout the term of the Contract. Details of the status and availability of government owned facilities and applicable rental rates are identified in the Special Provisions.

Some government owned facilities are being retained by the Department and are available for lease by the Contractor for the duration of the Contract. Others, previously owned by the government, have been sold and are not available to the Contractor for lease unless the Prospective Contractor can make arrangements with the new owner.

Any lease of a government owned facility by a Contractor will be based on the Standard Lease Agreement for highway maintenance facilities. The standard lease agreement is included with this RFP. The Department reserves the right to not accept, as a tenant, any Contractor that has previously failed to demonstrate environmental and contractual responsibility.

Notwithstanding anything to the contrary in this RFP document, any lease of a government-owned facility by a contractor and/or the use of a facility previously owned by the government will include the requirement for the Contractor to include in its Environmental Management Plan and construct at the Contractor’s sole cost, the improvements to the facility to satisfy the requirements of the “Environmental Management Plan Guidelines Highway Maintenance Yards” document included in this RFP. Such improvements shall be completed prior to the commencement of any operations at the site.

1.3 ELIGIBILITY OF PROSPECTIVE CONTRACTORS

Proposals will only be accepted from organizations registered with the Alberta Government Services, Corporate Registry. Directors may not be registered with more than one organization submitting a Proposal.

Proposals submitted by new companies that are incorporated as a limited partnership or as a totally new company will be accepted provided they meet the conditions of the RFP. Any Contract awarded will be in the new company's registered name.

Proposals from registered consortia or partnerships must be in the name of a single Contractor with other members of the consortium/partnership listed as subcontractors.

Proposals based on conditions other than those stated or allowed for by the RFP will not be considered.

The Department reserves the right to reject any or all Proposals.

1.4 PRE-SUBMISSION MEETING

During the period allowed for submission of Proposals, the Department will hold individual meetings, upon request, with Prospective Contractors to discuss the RFP and proposed Work area. At that time, Department representatives present will address any questions the Prospective Contractors have concerning the Work.

1.5 SELECTION OF THE PREFERRED PROPOSAL

Contracts will not be awarded on price alone. The Department will select a preferred Proposal using the method described in this RFP, which includes mandatory minimum requirements for execution of the Work, the Prospective Contractor's previous performance and experience, and the Prospective Contractor's proposed pricing.

1.6 INTRODUCTION OF DOCUMENTS

1.6.1 General

The documents listed in this section contain either mandatory requirements or supplemental information, concerning this RFP. Documents containing supplemental information are provided to assist the Prospective Contractor in determining the scope of the Work. Documents containing mandatory requirements are contractually binding.

In addition to a thorough examination of the documents, the Prospective Contractor is encouraged to inform himself about the exact nature of the Work expected to form part of the Contract. The Prospective Contractor may contact Department Operations Managers and Contract Inspectors, inspect roads and inspect records of previous Work performed.

The Prospective Contractor may also purchase Department manuals entitled "Highway Maintenance Guidelines and Levels of Service June, 2000" and "Contract Administration

Manual, Highway and Bridge Maintenance, Version 2, 2003". These manuals are available from Alberta Infrastructure and Transportation, Program Management Branch, 1st Floor, Twin Atria Building, Phone (780) 427-2091, Fax (780) 422-0232.

1.6.2 Documents Containing Mandatory Requirements or Supplemental Information Specific To The RFP and Contract

1.6.2.1 The following documents which contain mandatory requirements are included in this Request for Proposal

1.6.2.1.1 Instructions to Prospective Contractors

This document contains instructions on what the Prospective Contractor must include in a Proposal and how it is to be arranged. It also includes all the necessary forms and delivery instructions for submitting a Proposal.

1.6.2.1.2 Specification Amendments and Special Provisions

These documents contain additions, deletions or modifications to the Specifications to address unique work requirements which are specific to a CMA. The Specification Amendments and Special Provisions will form part of the Contract.

1.6.2.1.3 Unit Price Schedule

This document contains a list of all the Activities necessary to complete the Work, together with all the Bid Items associated with each Activity. The scope of Work for each Bid Item is described in the corresponding Specification, the reference number of which is shown beside the Bid Item.

The Unit Price Schedule also contains Provisional Quantities. Provisional Quantities are the anticipated quantities of Work expected to be performed during a full fiscal year of the Contract.

The Unit Price Schedule will form part of the contract.

1.6.2.1.4 Plans

The CMA Map is a plan that shows:

- boundaries of the Contract Maintenance Area,
- the location of Department facilities which are available for the Contractor's use, including leased shops and Department owned stockpile sites or gravel sources,
- the current paved and gravel provincial highway network that comprise the CMA, including approach roads, Vehicle Inspection Stations and other facilities that are part of the Contract, and
- general geographic information, such as towns and rivers.

The Plow Beat Map is included in the Special Provisions and is a plan that shows:

- hard surfaced highways that are maintained with a plow truck in the winter, including the highway control section and kilometre stations for each highway section,
- truck allocation used to calculate the "Base" Winter Service Delivery,
- maintenance facilities and stockpiles used to calculate the "Base" Winter Service Delivery (Some of these facilities are not available for the Contractor's use)

1.6.2.1.5 Winter Service Delivery Details

This document contains the necessary spread-sheets which the Prospective Contractor will use to determine if the number and location of his proposed sand salt storage sites and snow and ice control equipment fleet will provide the required level of service.

1.6.2.1.6 Motor Grader Service Delivery Details for Gravel Surfaces

This document describes the method for determining the number of motor grader circuits required for gravel surfaces, each of which is to have one motor grader assigned to it.

1.6.2.1.7 Environmental Management Plan Guidelines - Highway Maintenance Yards

This guideline is provided to document the minimum environmental requirements of an EMP. It is intended to provide a broad overview of environmental issues that face the industry, outline minimum EMP requirements, performance issues, basic monitoring and reporting requirements and to minimize misunderstandings in preparing EMPs.

This guideline is for use as a basis for preparing, reviewing and assessing the minimum requirements for source control at Highway Maintenance Yards. These same guidelines apply to all sites where Contractor's store or obtain mixed salt/sand products for use on a highway maintenance contract with Alberta Infrastructure and Transportation including sites owned, or previously owned by the Government that are now owned or operated by 3rd parties.

1.6.2.2 *Documents Containing Supplemental Information*

1.6.2.2.1 Previous Work Quantity Information

This information includes summaries of select "Bid Item" work quantities completed in a CMA in recent years. Prospective Contractors are encouraged to familiarize themselves with the historical work records for each CMA.

In general, the work quantity records will include the secondary highway network expansion. The Contractor shall assure himself whether the quantity records contain secondary highways and over what periods those highways were included in the existing highway maintenance contract.

Generally, large-scale expansion of the highway network to include secondary highways commenced in April 2000.

1.6.2.2.2 Local Features

Due to the geographical and climatic variations that impact highway maintenance throughout the province, there is a need for local features to be considered when undertaking a geographical highway maintenance contract. This document has been compiled to assist the Prospective Contractor to gain an understanding of the “local” aspect of the Work.

1.6.3 Documents Containing Mandatory Requirements Common to All Contracts and RFPs

The following documents are not included in the package with the Request for Proposals but are available for purchase from Alberta Infrastructure and Transportation, Program Management Branch, 1st Floor, Twin Atria Building, phone (780) 427-2091, fax (780) 422-0232.

These documents will form part of the Contract.

1.6.3.1 General Specifications

These documents detail the general terms and conditions of the contractual relationship between the Department and the Contractor and general requirements for the accommodation of traffic, which will be in effect for the duration of the contract. These specifications are contained in the Department manual entitled Highway Maintenance Specifications, Edition 4, January 2005.

1.6.3.2 Technical Specifications

These documents detail the technical requirements and payment terms for all Bid Items in the Contract and are contained in the Department manual entitled Highway Maintenance Specifications, Edition 4, January 2005.

Technical specifications for highway maintenance activities differ from those for highway construction activities due to the following:

- Specific locations where Work will be required are generally not known.
- The severity of problems can not be foreseen (for example, does the patch need to be excavated or surface patched?).
- The extent of Work required is unknown (for example, is the Work spread out over a large area or is it concentrated in one area?).
- Work practices and technologies may change during the term of the Contract.

1.6.3.3 Standard Drawings

These documents provide specific detail for various components or items of Work and are contained in the latest editions of the following Department manuals: Traffic Accommodation in Work Zones, Traffic Accommodation in Urban Work Zones, CB6 Standard Highway Construction Drawings, Highway Pavement Marking Guide, Typical Barrier Drawings, Typical Signage Drawings and the Highway Lighting Guide.

1.6.3.4 Alberta Transportation Products List

This document is referenced in the technical specifications and contains products that comply with the requirements of the applicable technical specifications and are suitable for use on Department projects. This document can be accessed on the Department website only, at www.trans.gov.ab.ca (click on construction projects; doing business with us; technology development - material products).

2.0 CONTRACT

2.1 DURATION OF CONTRACT

The duration of the Contract will be approximately 5 years. The termination dates for the CMAs in the existing highway maintenance contracts may vary for each CMA. The termination date for the Contract is specified in the Special Provisions.

2.2 SUBCONTRACTS AND ASSIGNMENTS

The terms and conditions concerning subcontracting and assignment of Work under the Contract are detailed in Specification 51.2, General (for Maintenance Work).

The Prospective Contractor shall list all proposed assignments in Envelope No: 1 of the Proposal.

The Prospective Contractor shall also include, in Envelope No: 1, a list of any proposed subcontracts associated with snow removal and ice control work where the value of such work exceeds \$25,000 annually and any subcontracts for other types of work where the value of such work exceeds \$100,000 annually. The Prospective Contractor shall use the following sample table as a guide for developing his list. Work activities should be added or deleted as required.

ACTIVITY	SUB CONTRACTOR'S NAME	ESTIMATED ANNUAL VALUE OF WORK
<i>Snow & Ice Control</i>		<i>\$50,000</i>
<i>Mowing</i>		<i>\$200,000</i>
<i>Weed Control</i>		<i>\$100,000</i>
<i>Line Painting</i>		<i>\$200,000</i>
<i>Total of Minor Items (under \$25,000 per sub for snow/ice control, and under \$100,000 per sub for other work)</i>		<i>\$150,000</i>
<i>TOTAL:</i>		<i>\$700,000</i>

Any assignments or subcontracts identified by the Prospective Contractor in his Proposal shall be subject to the approval of the Department.

The Prospective Contractor is advised that companies involved in other Department highway maintenance contracts, in the capacity of “the Contractor”, will be acceptable as subcontractors under any contract resulting from this RFP, provided that the value of the subcontracted work does not exceed 10% of the total contract value, on an annual basis.

2.3 CONTRACTS FOR INDIVIDUAL OR MULTIPLE CONTRACT MAINTENANCE AREAS

2.3.1 Allowable Number of CMAs

A Highway Maintenance Contractor may not hold a contract or contracts for more than 9 CMAs.

The total number of CMAs available for bidding at this time is 3.

2.3.2 Proposals for Multiple or Individual CMAs

A Prospective Contractor may submit no more than one Proposal for each individual CMA and no more than one Proposal for each specific combination of CMAs.

For a Proposal covering a combination of CMAs, the amount of security required shall be the aggregate amount. (Prescribed security per CMA multiplied by the number of CMAs in the Proposal). The unit prices bid for “like” bid items shall be the same in all the individual CMAs, except for the following CMA specific items.

- Bid items 1410 to 1419 - Supply and Stockpile Sand to ...
- Bid items 1470 to 1479 - Supply of Sodium Chloride to ...
- Bid item 3001 - Highway Maintenance Work per CMA
- Bid item 4401 - Indirect Operating Costs per CMA
- Bid item 4410 - General Liability Insurance Premium per CMA

A Prospective Contractor interested in bidding on individual CMAs may submit Proposals for any and all CMAs.

2.3.3 Proposals From A Prospective Contractor With An Existing Department Highway Maintenance Contract

Resources such as snowplow trucks, sand/salt, loaders, foreman and operators, allocated to an existing Department highway maintenance contract can not be committed in a Proposal.

A Prospective Contractor with an existing Department highway maintenance contract that terminates after July 31, 2006 will have each CMA in the existing contract included in the allowable total of 9 CMAs.

3.0 PROPOSAL EVALUATION

3.1 OVERVIEW OF PROPOSAL EVALUATION OBJECTIVES

The objectives of the evaluation of the Proposals are to:

- Ensure that the safety of the travelling public and maintenance workers is maintained,
- Deliver the Department's highway maintenance program at the best value possible
- Ensure that the government's investment in the road infrastructure and operational facilities throughout the province is protected,
- Minimize the financial risk to both the Department and the Contractor and ensure that the risk is equitably distributed, and
- Maximize the appropriate use of technology to reduce costs.

3.2 OVERVIEW OF PROPOSAL EVALUATION PROCESS

The Department will assess Envelope 1 and Envelope 2 of the Proposals to determine if the minimum requirements specified for have been satisfactorily met:

The Department will then score the Proposals on the following two categories if all minimum requirements have been met:

- Past performance of Existing and Previous Contractors or experience of new contractors (a total of 50 points available)
- Envelope 3 - Pricing (a total of 950 points available)

Once the preferred Proposal or Proposals have been identified, the Department may meet with the preferred Prospective Contractor(s) to finalize any details concerning the Proposal(s). The preferred Proposal(s) will then be assessed for financial capability.

If the preferred Proposal(s) is deemed satisfactory following the financial assessment, the preferred Prospective Contractor(s) will then be required to submit a detailed Mobilization Plan. If the Mobilization Plan is acceptable, the Contract(s) will be awarded.

3.3 PROPOSAL EVALUATION AND CONTRACT AWARD – 4 ENVELOPE PROCESS

The Prospective Contractor's Proposal shall consist of 4 basic components. The information provided for each component shall be submitted in one of the 4 envelopes as detailed in this RFP. The Department will assess the contents of each envelope separately. The criteria used to assess the contents of each envelope are detailed in this RFP.

If the information provided by the Prospective Contractor does not demonstrate that the Prospective Contractor is able to meet the mandatory and minimum requirements of the RFP, Special Provisions, Plans, Specifications and Specification Amendments, then the Proposal may be rejected.

The following provides an overview of the requirements for each envelope and a general outline of the proposal evaluation and contract award process.

3.3.1 Phase 1 - Compliance with Specifications (Envelope 1)

This first phase of the evaluation process will be to assess the contents of Envelope No: 1 to ensure that the Proposal meets all the mandatory requirements of the Specifications and the RFP. If the results of the assessment indicate that the Prospective Contractor does not comply with all requirements, the Proposal may be deemed unacceptable and rejected. If a Proposal is rejected at this stage, all other envelopes for such proposal will be returned unopened to the Prospective Contractor.

3.3.2 Phase 2 – Work Execution Plan and Previous Performance/Experience (Envelope 2)

The second phase of the evaluation process will be to assess the contents of Envelope No: 2. Envelope No: 2 shall contain the service levels the Department may expect from the Contractor. This will allow the Department to assess the Prospective Contractor's ability to meet the specified minimum requirements and carry out the Work without unnecessary risk to the travelling public or the Department for the duration of the Contract.

The Prospective Contractor's Previous Performance and Experience will be scored in accordance with Section 3.5.2. A total of 50 points, or 5% of the total score, will be attributed to previous performance/experience.

3.3.3 Phase 3 - Price Analysis (Envelope 3)

The third phase of the evaluation process will be to assess the contents of Envelope No: 3 to determine which Proposal(s) would provide best value to the Department at any stage during the term of the Contract. This phase of the evaluation will account for a total of 950 points, or 95% of the overall score of a Proposal.

In particular, the following items will be assessed:

- The anticipated overall total cost to the Department of accepting the Proposal.
- The impact on cost of upward and downward shifts in the quantities of groups of major highway maintenance activities.

The Bid Items will be analyzed under a series of probable scenarios for the 5-year term of the Contract. The scenarios will include possible work quantity variations and economic parameter fluctuations. The price analysis will identify the Proposal that performs well under the most scenarios compared to ones that perform well under a lesser number of scenarios. The object is to determine the Proposal that provides the best value to the Department.

3.3.4 Phase 4 - Identifying the Preferred Proposal

The Proposal which meets all the minimum requirements of Envelope No: 2 and has the best combined score for past performance/experience and Envelope No: 3 Pricing, will become the preferred Proposal. Only the preferred Proposal will be subjected to the following phases.

3.3.5 Phase 5 – Meeting to Clarify any Details Concerning the Proposal

At this stage in the process, the Department may meet with the preferred Prospective Contractor to clarify any details concerning the preferred Proposal.

3.3.6 Phase 6 – Financial Analysis (Envelope 4)

The Department will satisfy itself that the Prospective Contractor submitting the preferred Proposal has the financial capability and support to perform the Work, as well as the financial stability to continue operations throughout the 5-year term of the Contract. In Envelope No: 4, the Prospective Contractor is required to submit financial and related information to allow the Department to make that determination.

It is recognized that prospective Contractors may have concerns about divulging their financial data to the Department. Therefore, arrangements have been made for an independent financial evaluation company to serve as the examiners of the ownership and financial data submitted in Envelope No: 4.

Only the preferred Proposal's Envelope No: 4 will be provided to the financial evaluator. The envelopes of all other Prospective Contractors will be retained unopened by the Department Designate. Using data derived in Phase 3, together with the contents of Envelope No: 4, the financial evaluator will assess the submission, and will provide the Department with a determination of either satisfactory or unsatisfactory. If the contents of Envelope No: 4 are deemed to be unsatisfactory, the Proposal will be rejected and the Proposal which meets all minimum requirements of Envelope 2 and has the second best composite score will become the new preferred Proposal.

After assessing the contents of Envelope No: 4, the financial evaluator will reseal the contents in the envelope and return it to the Department designate. The Department designate will forward the package to the Prospective Contractor.

The following data is required as part of Envelope No: 4:

3.3.6.1 Ownership

The Prospective Contractor shall provide a clear statement of the ownership of the existing business submitting the Proposal. The Department requires an indication of the corporate structure of the Prospective Contractor, the names of the principals, their ownership interest and the name under which the Prospective Contractor is registered with Alberta Government Services, Corporate Registry. If more than one Prospective Contractor is involved, the Department also requires a statement of the ownership structure of the proposed venture.

3.3.6.2 Eligibility

Since a Contractor is restricted as to the number of CMAs he can hold, the Department requires a statement indicating the number of CMAs already awarded to the Prospective Contractor(s) or principals of the Prospective Contractor.

3.3.6.3 Financial Statements

If the Prospective Contractor is an existing business, the Department requires the audited financial statements for the previous 3 years. These statements shall include as a minimum:

- Statement of Earnings
- Balance Sheet
- Statement of Cash Flows

The notes to these statements shall also be provided.

For organizations that do not have audited statements, the Department requires at least a Statement of Earnings, Balance Sheet and Statement of Cash Flows for the 3-year period, together with the name, address, and phone number of the accountant who prepared the statements. The independent financial evaluator may contact the accountant for clarification of submissions.

When more than one Prospective Contractor is involved in a joint submission, the Department requires the statements of each Prospective Contractor according to the guidelines provided above.

When an individual submits a Proposal, the Department requires the following for each of the principals involved in the venture:

- A statement of net worth notarized in Alberta.
- A personal credit rating report.

3.3.6.4 Pro Forma Statements

The Department requires financial pro forma statements for the proposed venture and expects to see the following:

- A Statement of Earnings showing revenues from Alberta Infrastructure and Transportation, the cost of operation, and the profit expected before taxes for each of the 5 years of the Contract.
- A Balance Sheet for the each of the 5 years.
- Statement of Cash Flows for the 5 years, with the first year broken into months. Sources of new debt or equity required by the venture shall be identified.

3.3.6.5 *Financing*

The Prospective Contractor shall provide a statement from each investor indicating the investor's undertaking to provide the equity involved. Also to be provided, is a letter from each lending institution indicating that it has examined the pro forma statements of the proposed venture and are prepared to provide financing as per the statements.

3.3.7 Phase 7 – Mobilization Plan

If the contents of Envelope No: 4 are satisfactory, the Prospective Contractor submitting the preferred Proposal will be required to provide a detailed Mobilization Plan demonstrating how his organization will be able to commence Work by the specified date.

The preferred Prospective Contractor will be permitted 30 days to submit the Mobilization Plan. The Mobilization Plan shall include the following:

- Assembling the management and supervisory team,
- Letters of Intent from the Prospective Contractor for engaging the Foreman, Snowplow Truck Operators and all remaining personnel to commence work,
- Resumes for all Foremen and Snowplow Truck Operators
- Letters of Intent from the Prospective Contractor for purchasing any equipment in accordance with the undertaking of the Proposal,
- Letters of Intent from the Prospective Contractor for procurement of facilities and scheduling of site construction,
- Securing bonds and insurance,
- Producing the necessary documentation to ensure compliance with the General Specification requirements for winter default procedures,
- Detailed Schedule of the mobilization process including commencement and completion dates for each phase of the Contractor's mobilization plan.
- In the event that the original facilities are not available, details of alternatives (alternative facilities must be comparable and acceptable to the Department),
- Identification of any facilities that are being obtained from the Government of Alberta (any and all Departments and agencies or boards) or facilities that were previously owned by the government.

A commitment by the preferred Prospective Contractor to execute lease agreements for each Department facility to be leased if a Contract is awarded. The lease agreements will be prepared by the Department based on the applicable rental rates as stated in this RFP and on the terms and conditions as set out in the standard lease agreement.

Identification of any person who has any interest in the title, lien, caveat or encumbrance on property being proposed as a site for storage of equipment or materials.

3.3.8 Phase 8 - Contract Award

If the Department is satisfied with the preferred Prospective Contractor's Mobilization Plan, the Contract will be awarded, and Envelope No. 4 of the unsuccessful Prospective Contractors will be returned.

Within 60 days after Contract award, the Contractor shall submit a Comprehensive Staff Training Plan, a Safe Work Practices/ Job Procedures Plan and Traffic Accommodation Strategies Plan for all highway maintenance work activities. Failure of the Contractor to submit these plans within this time period will result in assessment of a \$250.00 per week per plan penalty up to the time acceptable plans have been submitted.

By September 1, 2006, the Contractor shall submit Environmental Management Plans (EMPs) for each highway maintenance yard included in the Contract. Failure of the Contractor to submit acceptable EMPs within this time period will result in assessment of a \$1000.00 per site per month penalty up to the time an acceptable EMP(s) has been submitted. After January 1, 2007, this penalty will increase to \$2,000.00 per site per month per site. These penalties will be prorated for lateness of a partial month.

Failure of the Contractor to commence work on the specified contract date may result in the forfeiture of the Performance Security.

3.4 IMPLEMENTATION OF MOBILIZATION PLAN

3.4.1 Progress Updates for Mobilization Plan

Following Contract award, the Contractor shall provide the Department with written monthly reports concerning the progress being made on the various components of the Mobilization Plan, particularly the procurement of facilities and winter snow and ice control equipment. Such reports shall be supplied to the Department's Operations Manager at the end of each month. The Contractor may also be required to meet with the Operations Manager to discuss details of the progress of the Mobilization Plan. Any such meetings will be at the discretion of the Department.

3.4.2 Failure to Deliver Equipment, Operators or Sand/Salt Materials in Accordance with the Mobilization Plan

In the event the Contractor is unable to provide the required number of snowplow trucks, loaders, equipment operators or sand/salt material at the applicable locations by the required dates indicated in the Mobilization Plan, the Contractor must undertake alternative temporary measures, to ensure that there is no loss in service to the travelling public. Such measures must be suitable to the Department and shall be completed at no additional costs to the Department.

The alternative measures must be detailed in a written Contingency Plan and provided to the Department for evaluation prior to implementation. The Department will be the sole judge of whether or not the Contractor's proposed Contingency Plan provides an adequate level of service or if the duration proposed by the Contractor for the Contingency Plan is suitable.

In these situations the following conditions shall also apply:

- If the Department is of the opinion that the Contractor's Contingency Plan would not result in a loss of service and there are no additional costs to the Department, the Contractor will not be assessed penalties for failing to comply with the Mobilization Plan.

- If the Department is of the opinion that the Contractor’s Contingency Plan would result in a reduced level of service but that the reduced level of service, for the time period proposed, is manageable, the Contractor would not be assessed penalties for failing to comply with the Mobilization Plan. However, if the Contractor does not meet either the deadlines or the other commitments detailed in the Contingency Plan, penalties will be assessed as if the Contingency Plan was deemed “unacceptable”.
- If the Department is of the opinion that the Contractor’s Contingency Plan does not provide an adequate level of service and/or the proposed duration for the alternative measures is too long, the Contingency Plan will be deemed unacceptable. In these cases, the Contractor will be assessed penalties based of the quantities of materials and equipment/operators that are not “in place” by the required dates. The penalties shall be \$500 per day per stockpile of sand or salt, \$500 per day per snowplow truck with operator(s) and/or \$500 per day per loader with operator. The penalties shall commence on the day the materials and/or equipment/operators were scheduled to be in place and shall continue daily until such time as the materials and/or equipment/operators are in place or until a suitable Contingency Plan is received by the Department and suitable alternate measures are in place.

3.4.3 Permanently Relocating a Shop

Permanent relocation of a Shop subsequent to the award of the Contract shall be subject to the approval of the Department. In these cases the Department’s main concern will be that the Contractor provide the same level of service as was indicated in the Contractor’s Proposal, at no additional cost to the Department.

Generally, if the required level of service can be maintained without increasing the number of snowplow trucks, the request to relocate the Shop would be approved. However, if additional snowplow trucks and/ or operators are required to maintain the required level of service, the “Availability Rate” and “Heated Storage” payments will not be made for those trucks and/ or operators as applicable. Also, the Department will not entertain requests for increases to the Indirect Operating Costs.

3.5 EVALUATION CRITERIA

3.5.1 Envelope No: 1 - Compliance with Specifications

The following table shows the items in Envelope No: 1 which will be reviewed by the Department. Non-compliance with any of these requirements may result in the rejection of the Proposal.

Requirements	Compliance	Non Compliance
A completed form titled “Prospective Contractor’s Certification of Information Provided”, which must be completed and initialed.		
A completed "Prospective Contractor's Proposal Agreement" form		

Requirements	Compliance	Non Compliance
Commitment to provide consent of interested parties to allow the Department's use of snow clearing equipment and facilities in the event of Contractor default or Contract termination.		
Consent of Surety for a labour and material bond in the amount required.		
Consent of a financial institution for an irrevocable letter of credit, certified cheque, bank draft or money order; or a consent of surety for a forfeiture bond in the amount required for Performance Security.		
Signed letter of intent from an insurance company		
Confirmation that the Prospective Contractor has completed or has initiated the process for safety accreditation		
Confirmation that the company is legally registered with the Corporate Registry		
List of proposed Assignments and Subcontracts		
UPS(s) requirements: - confirmation that fixed costs do not exceed the 45% of total annual contract amount; the UPS(s) has not been qualified in any fashion; and all unit prices are identical in multiple CMA proposals, with the exceptions noted in Section 1.4.4 of the Instructions to Bidders.		
Prospective Contractor's intention regarding Voluntary Partnering		
Signed Receipt of Addendum form(s)		

3.5.2 Previous Performance/Experience

3.5.2.1 Existing/ Previous Department Highway Maintenance Contractors

Prospective Contractors that hold or have held a Department highway maintenance contract will be recognized for the performance of their respective contracts.

Existing Contractors and Previous Contractors will be scored using the Performance Measures System for each particular year. Points will be awarded based on the following table.

Existing Contractor's Performance Score (%) (Average over last 4 years)	Points Awarded (Weighting Factor of 10)
95 - 100	5
90 - 94	4
81 - 89	3
71 - 80	2
61 - 70	1
Under 60	0

Prospective Contractors that have more than one existing highway maintenance contract will have a weighted average score calculated based upon the value of their contracts.

3.5.2.2 *New Contractors*

Prospective Contractors with highway maintenance and/ or highway construction contracting experience in other provinces or jurisdictions will also be given consideration in accordance with the following table. Prospective Contractors with highway construction experience in the Province of Alberta will also be scored using this table.

HIGHWAY MAINTENANCE AND CONSTRUCTION CONTRACT EXPERIENCE					
Maintenance			Construction		
Years Experience	Annual Contract(s) Avg. Value (millions)	Score	Years Experience	Annual Contract(s) Avg. Value (millions)	Score
> 5	≥ 5	*APS	> 10	≥ 10	*APS - 2
> 5	< 5	APS - 1	> 10	< 10	APS - 2.5
2 - 5	≥ 5	APS - 1.5	5 - 10	≥ 10	APS - 3.0
2 - 5	< 5	APS - 2.0	5 - 10	< 10	APS - 3.5
> 0 and < 2	≥ 5	APS - 2.5	> 0 and < 5	≥ 10	APS - 4.0
> 0 and < 2	< 5	APS - 3.0	> 0 and < 5	< 10	APS - 4.5

**Note: APS means Average Provincial Score over the last four years of all existing Highway Maintenance Contractors under contract to the Department. The APS will be a weighted average based upon the total yearly value of each contract.*

Prospective Contractors who do not meet these “experience” criteria will not be awarded points. Negative scores will revert back to zero and no points will be awarded.

The Prospective Contractor shall provide a written history of his applicable highway maintenance and/ or highway construction experience and include it in Envelope No. 2 of his proposal. The Prospective Contractor shall include appropriate supporting documentation from the jurisdiction where the experience was attained.

As a minimum, the Prospective Contractor shall provide the following information:

- Highway Maintenance Experience
 - Jurisdiction of contract
 - Start/ End dates of contract
 - Type of work included in contract
 - Annual contract value

- Highway Construction Experience
 - Jurisdiction of contract(s)
 - Years in business
 - Type of work included in contract(s)
 - Average annual value of contract(s)

3.5.3 Envelope No: 2 - Work Execution Plan Minimum Requirements

The following table summarizes the minimum requirements for the work execution plan, as specified in section 3.6, that must be addressed in Envelope 2 of the Prospective Contractor's proposal. In the right column of the table, the Prospective Contractor shall identify the page number(s) of his proposal that addresses each minimum requirement, and shall include the table in Envelope 2 of the proposal.

Section Reference Number and Description		Proposal Page #
3.6.3	KEY PERSONNEL	
3.6.3.1	Organization Chart	
a.	Organization chart of titles and locations for personnel, including foreman	
b.	Locations of the proposed major offices	
c.	Resumes and work history of personnel, excluding foreman	
3.6.3.2	Contract Manager	
a.	One per 9 CMAs (including existing contracts), more if CMAs are not adjoining	
b.	Office within the Contract area boundaries	
c.	Seven years of applicable experience managing \$5 million/yr. or greater	
d.	Three years of direct experience managing hwy maintenance of \$5 million/yr. or greater	
3.6.3.3	Superintendents	
a.	Number of Superintendents	
b.	Reside within the Contract area boundaries	
c.	Five years of applicable experience	
3.6.3.4	Foremen	
a.	Commitment for minimum number of Foremen at all times	
b.	All foremen are to be "non-working" foreman	
c.	Foremen reside within 30 minutes of the area	
d.	75% of foreman have 5 years experience with 2 years at a supervisory role	
e.	Commitment that resumes/ declarations will be provided with mobilization plan	
3.6.3.5	Equipment Operators	
a.	Commitment that a minimum of 70% of operators will have 3 years experience	
3.6.4	WORK PLANNING	
a.	Agreement to work jointly with the Department in the planning process	
b.	Agreement to provide a detailed work plans by April 1 of each year	
c.	Agreement to monitor and track progress of the work plan	
d.	Agreement to identify and report work to the department	
3.6.5	SNOW/ICE CONTROL PLAN	
3.6.5.1	Salt and Sand Storage Site Plans	
a.	Ownership and location of site by land parcel.	
b.	Detailed description of the proposed method used to track quantities at shared sites	
c.	Location and length of highway network serviced by a site	
d.	Highway locations should represent halfway point between sites, if not, why	
e.	Calculation of the bid quantity of salt for that site	
f.	Calculation of the bid quantity of sand for that site	
g.	Salt and/or sand structures additional storage capacity as identified in the SPs	
h.	Identified dead haul roads being used to access the highway system	
i.	Identified the type of loader equipment and loader storage	
3.6.5.2	Snowplow Truck Storage Sites	
a.	Ownership and location of site by land parcel	
b.	The number of trucks at each site	
c.	The number of trucks in indoor heated storage at each site	
d.	Identified roads & lengths between truck storage facilities & salt/sand storage sites	

Section Reference Number and Description	Proposal Page #
3.6.5.3 Environmental Management Plans	
a. Written commitment to provide all EMPs by September 1, 2006	
3.6.5.4 Salt Management Plans	
a. Written commitment for compliance with the department's Salt Management Plan	
b. Written commitment that Contractor staff is made aware of their responsibilities	
3.6.5.5 Winter Service Delivery	
a. All WSD tables accurately completed	
b. Complied with Winter Snowplowing delivery time requirements identified in the SPs	
c. Complied with Snowplow truck allocation requirements identified in the SPs	
d. Complied with Winter sand/salt application delivery times identified in the SPs	
e. Complied with Cumulative Network Time Requirements identified in the SPs	
f. Provided number of snow plow trucks (8.5m ³ or greater) identified in the SPs	
g. Provided number of snow plow operators as calculated in the WSD	
h. Provided number of pre-wetting devices identified in the SPs	
i. Provided number of two-way plows identified in the SPs	
j. Provided number of under-body plows identified in the SPs	
k. Provided number of right sided wings identified in the SPs	
l. Provided number of left sided wings identified in the SPs	
m. Provided number of dual wings identified in the SPs	
n. Provided number of single axle trucks identified in the SPs	
o. Written commitment to equip all snowplow trucks with the Dept's selected AVLS	
3.6.5.6 Motor Graders For Snow/Ice Control on Paved Surfaces	
a. Number of graders provided meets or exceeds the SPs.	
3.6.6 MOTOR GRADERS FOR GRAVEL SURFACES	
a. Grader plan meets the grader service delivery requirements	
b. Provided Grader Beat Maps including storage locations	
c. Number of motor graders complies with the maximum utilization per grader	
d. Each proposed circuit completed within the maximum "time to complete"	
e. Suitable back-up plans for motor grader breakdowns and operator unavailability	
f. Arrangements for supplemental resources in emergency situations	
3.6.7 REPAIR OF EQUIPMENT	
a. Identified location of repair facilities, mechanics, service vehicles & spare equipment	
b. Provided a contingency plan for repair/ replacement of sub-contractor's equipment	
c. Identified pre-winter season preparations for winter snow/ice control equipment	
3.6.8 STAFF TRAINING	
a. Written commitment to submit training plan within 60 days after contract award	
b. Written commitment for jointly developing training programs with the Department	
3.6.9 SAFETY PLAN	
a. Included emergency preparedness plan for public safety	
b. Written commitment to submit safe work practices within 60 days after contract award	
c. Included a fatigue management plan	
d. Written commitment to submit TAS within 60 days after contract award	
e. Included policy for conducting safety meetings	

3.5.4 Envelope No: 3 - Price Analysis

An explanation of the various “Pricing Components” and “Total CMA Cost” is detailed in the section of this RFP titled “Details for Analysis of Pricing.”

Pricing Components	Weighting Factor	Scoring for Pricing Components Worst to Best					Maximum Available
		1	2	3	4	5	
Scenario # 1	4						20
Scenario # 2	4						20
Scenario # 3	4						20
Unbalanced Bid Check	6						30
Total CMA Cost							860
Total Points							950

3.5.5 Envelope No: 4 – Financial Analysis

The following items will be assessed by the financial evaluator and will be rated as either acceptable or unacceptable.

FACTORS	ACCEPTABLE	UNACCEPTABLE
Ownership		
Eligibility		
Financial History		
Pro Formas		
Financial and Banking		

3.6 DETAILS FOR EVALUATION OF WORK EXECUTION PLAN (ENVELOPE 2)

3.6.1 General

The individual components of the contents of Envelope No: 2 will be assessed using the key points outlined in this section.

The Proposal shall address each issue specified and when requested, provide information in sufficient detail to ensure the Department can determine (with confidence) the Prospective Contractor’s ability to meet the requirements of the key points.

The Department will assess the Prospective Contractor’s ability to safely and competently perform the Work. A Proposal that makes certain commitments and covers all the issues in a comprehensive manner will be considered for further evaluation. All requirements identified in Envelope 2 must be met or exceeded before the Department will consider entering into a Contract with a Prospective Contractor.

The Work Execution Plan will form part of the Contract.

3.6.2 Specified Minimum Requirements

Each component of the Work Execution Plan makes reference to minimum requirements. Minimum requirements are those that the Department feels must be satisfactorily addressed in the Work Execution Plan.

All minimum requirements must be met. If a minimum requirement is not satisfactorily addressed in the Work Execution Plan, the appropriate category will be considered to be non-compliant. The preferred Prospective Contractor will be required to ensure that all sections that do not meet the minimum requirements are addressed in his Work Execution Plan prior to final acceptance by the Department, and there will be no resulting adjustment of prices. This is premised on the assumption that the Prospective Contractor was aware of the minimum requirements and not specifically addressing it in the Work Execution Plan was simply an oversight. The preferred Prospective Contractor will be provided one week to make adjustments to his Work Execution Plan.

If a minimum requirement is not satisfactorily addressed in the Work Execution Plan, the Department reserves the right to terminate the evaluation of the Proposal.

3.6.3 Key Personnel

3.6.3.1 Organization Chart

Normally, maintenance organizations have a basic organization as shown below:

Principals	Administer Contractor Activity
Contract Manager	Administers Contract Activity
Superintendent	Administers Activity in Contract
Foremen	Supervises Activity in a Local Area
Equipment Operators	Performs Activities Locally

It is understood that each Prospective Contractor may wish to organize in a different fashion or manner. The Department has no desire to change or create a different organizational structure for the Contractor but simply uses this base structure for comparative purposes. Each Contractor may choose to have whatever management structure they wish.

3.6.3.1.1 Minimum Requirements

- a. The Prospective Contractor shall provide an organization chart, indicating titles and locations for all personnel at the foreman level and higher.
- b. The Prospective Contractor shall identify the locations of the proposed major offices where the Prospective Contractor's administrative functions will occur.
- c. All personnel identified, with the exception of the foreman should have both a resume and a brief description provided of their work history, including any previous experience they may have in any kind of highway maintenance.

3.6.3.2 *Contract Manager*

The skills and experience of the Contract Manager are considered an essential component of the highway maintenance contract. Contract Managers are expected to have:

- Demonstrated good speaking and writing skills, to enable positive liaison with the Department's Staff and ensure accurate record keeping, including accident reports and Work Completion Reports,
- Demonstrated experience in planning, organizing, directing and reviewing the Work of the crews
- Good public relations skills,
- Experience in contract management, and
- Experience in large maintenance highway contracts, and
- Experience in construction highway contracts.

3.6.3.2.1 Minimum Requirements

- a. At least one Contract Manager must be identified in each Proposal, regardless of the number of CMAs within the Proposal. If there is more than one CMA in the Proposal, the same Contract Manager can be named for all the CMAs, to a maximum of 9, providing the CMAs are adjoining. If the CMAs are not adjoining, then an additional Contract Manager would be required. If a Contract Manager is or will be also supervising CMAs within an existing Department highway maintenance contract, then those CMAs will also be included in the maximum of 9 CMAs for that Contract Manager.
- b. The Contract Manager is required to have an office within the Contract area boundaries. The Contract Manager shall be responsible for supervision of administrative responsibilities of the Contractor and should be available to liaise on a day to day basis with the Department Operations Manager.
- c. The Contract Manager must have a minimum of 7 years of experience managing Construction/Maintenance contracts or programs that had an annual value of \$5 million or greater.
- d. Of the seven years the Contract Manager must have a minimum of 3 years of direct experience managing highway maintenance contracts or programs that had an annual value of \$5 million or greater.

3.6.3.3 *Superintendents*

The Superintendent must be able to substitute for the Contract Manager in her/his absence. Normally, all the basic skills of the Contract Manager are required for the Superintendent.

Superintendents are not normally "line supervisors" and do not regularly supervise work activities directly in the field.

Superintendents must have the ability to respond rapidly to emergency after-hours calls and to notify the Department of any required Work.

Superintendents must have directly related supervisory highway maintenance experience. Contract administration experience is also required.

A Superintendent may supervise up to 3 CMAs. If there is more than one CMA in the Proposal, the same person can be named for all the CMAs, to a maximum of 3, providing the CMAs are adjoining and form a continuous area. If the CMAs are not adjoining and not continuous, then additional Superintendents are required.

3.6.3.3.1 Minimum Requirements

- a. Prospective Contractor must provide minimum number of Superintendents as prescribed above.
- b. Superintendents must reside within the Contract area boundaries they manage and be available in the “off-hours” in case of emergency situations. If the Contract Manager does not have an office in close proximity to office of the Department Operations Manager, it is very desirable that the Superintendent resides and works in close proximity. Day to day operations should not be delayed due to the absence of the Contract Manager.
- c. Superintendents must have a minimum of 5 years of highway maintenance contract supervisory and administration experience.

3.6.3.4 *Foremen*

Foremen supervise activities and therefore must have a demonstrated ability to supervise the operation of all maintenance activities and ensure proper procedures are used.

3.6.3.4.1 Minimum Requirements

- a. The Prospective Contractor must commit to having the minimum number of Foremen identified in the Special Provisions at all times.
- b. All foremen are to be “non-working” foreman. Their task is to oversee and direct the work. They are not to be considered full time operators for snow-plows.
- c. Foremen must reside in the off-hours within 30 minutes from the area they supervise in order to deal with emergencies that may arise.
- d. Seventy five percent or more of the foreman must have a minimum of 5 years highway maintenance experience of which 2 years must have been at the supervisory role. Each foreman must have some level of supervisory highway maintenance experience and a good working knowledge of highway “work zone” management.
- e. The Prospective Contractor is required to provide a written commitment that the resumes of each of the Foreman and a declaration indicating their desire to work for him will be provided to the department with the mobilization plan.

3.6.3.5 *Equipment Operators*

It is considered important that snow/ice control activities be performed by trained and skilled equipment operators. It is expected that experienced personnel will be able to exercise the appropriate judgment to operate safely and appropriately in emergency situations.

3.6.3.5.1 Minimum Requirements

- a. The Prospective Contractor shall provide a written commitment that a minimum of 70% of snowplow truck operators that he intends to employ for the term of the Contract will have at least 3 years experience in winter highway maintenance.

3.6.4 Work Planning

The Prospective Contractor shall provide a brief description of how the work will be planned in accordance with contract specifications. The Prospective Contractor's work planning shall include, but is not limited to the following items:

- Joint participation in the development of the yearly CMA activity based budget
- Development of a detailed work plan for all programmed work
- Allowances in resource allocation to ensure ability to perform routine and reactionary work is not compromised
- Work identification and reporting as part of the Prospective Contractor's routine highway inspections

3.6.4.1 *Minimum Requirements*

- a. The Prospective Contractor agrees to work jointly with the Department in the development of an efficient work planning process that takes into account both the needs of the Prospective Contractor and the needs of the Department (i.e. budget, completion dates, priorities, etc.)
- b. The Prospective Contractor agrees to provide a detailed work plan for "major" specified programmable work activities and for other "minor" programmable Work Activities as mutually agreed by April 1 of each year.
- c. The Prospective Contractor agrees to monitor and track progress of the work plan and report to the department on a bi-weekly basis or otherwise mutually agreed.
- d. The Prospective Contractor agrees to identify and report work to the department in accordance with the highway maintenance specifications.

3.6.5 Snow/Ice Control Plan

The key element in Envelope No: 2 is the Prospective Contractor's Snow/Ice Control Plan.

3.6.5.1 *Salt and Sand Storage Site Plans*

The Prospective Contractor must provide a detailed description for each salt storage and sand storage facility identified in the Proposal, including any third party maintenance facility that the Prospective Contractor intends to purchase these materials from.

The use of a site that is presently being used and is outside the boundaries of the CMA(s) included in this RFP will only be permitted if the Prospective Contractor clearly demonstrates that the salt and or sand storage capacity is not being duplicated.

The minimum requirements describe below should be summarized in a tabular format. Headers to include;

- Site Name
- Legal Land Location
- Ownership of Site
- Kms of Highway Serviced from Site
- Kms of dead haul to nearest highway
- Calculated Salt requirement for site (Salt distribution factor x No. of 2LEKm)
- Calculated Sand requirement for site (Sand distribution factor x No. of 2LEKm)
- Department Storage requirement for Salt
- Department Storage requirement for Sand
- Salt storage capacity of site
- Sand storage capacity of site
- Loader type
- Loader Storage

3.6.5.1.1 Minimum Requirements

- a. Ownership and location of site by land parcel.
- b. If the site is being shared with other users of salt or sand and/or the Contractor is providing salt and/or sand to/for others, the Contractor must provide a detailed description of the proposed method used to track quantities. This method must be able to be audited and satisfactory to the Engineer.
- c. The location and length of highway network serviced by a site. If the site is being used for more than 1 CMA, the lengths and locations of all highways serviced (in all CMAs) by the site must be identified.
- d. Highway locations serviced by a site should represent, in general, the halfway point between sites. If this is not the case, the Prospective Contractor shall provide an explanation why they do not.
- e. Calculation of the bid quantity of salt for that site. The quantity of salt should be calculated based on the length of highway serviced by the site in each CMA, multiplied by the Salt Distribution Factor identified in the Special Provisions for that CMA, aggregated together.
- f. Calculation of the bid quantity of sand for that site. The quantity of sand should be calculated based on the length of highway serviced by the site, in each CMA

- multiplied by the Sand Distribution Factor identified in the Special Provisions for that CMA, aggregated together.
- g. Salt and/or sand structures are to accommodate additional storage capacity as identified in the Special Provisions.
 - h. Clearly indicate the dead haul roads, including length and location, being used to access the highway system. Identify any major dead haul routes through urban or residential areas. The location of the roadway network access needs to be identified within 0.1 km. accuracy, referenced to the Department's control section reference system.
 - i. Identify the type of loader equipment and loader storage the site will have. All loaders must be stored inside a covered structure.

NOTES:

If the Prospective Contractor has any cause for alteration of the quantity of salt or sand the Prospective Contractor must provide his explanation and evaluation of the causes for the amendments to salt or sand distribution quantity.

For Proposals consisting of multiple CMAs and having sites servicing highways in more than 1 CMA, the price bid for supply of salt or sand from that site must be the same in the Unit Price Schedule for each CMA for that particular site.

For Proposals consisting of multiple CMAs and having sites servicing highways in more than 1 CMA, the salt or sand quantity distribution must be based on the kilometer distance of highways in each CMA, utilizing the factors identified in the Special Provisions.

3.6.5.2 Snowplow Truck Storage Sites

The Prospective Contractor must provide a detailed description for every snowplow truck storage facility listed within the Proposal.

The minimum requirements describe below should be summarized in a tabular format. Headers to include;

- Site Name
- Legal Land Location
- Ownership of Site
- Kms of Highway Serviced from Site
- Kms of dead haul to nearest highway
- Number of Trucks stored at site
- Number of Trucks in indoor heated storage

3.6.5.2.1 Minimum Requirements

- a. Ownership and location of site by land parcel.
- b. The number of trucks at each site.

- c. The number of trucks in indoor heated storage at each site is. The total number of trucks stored in indoor heated storage must be equal to or greater than what is specified in the Special Provisions,
- d. Identification of roads and lengths between each truck storage facility and the applicable salt/sand storage site or sites. The location of the roadway network access needs to be identified within 0.1 km accuracy, referenced to the Department's control section reference system.

3.6.5.3 Environmental Management Plans (EMPs)

In the long term interest of maintenance contracting, it is imperative that all sites, both publicly and privately owned, are kept clean and responsibly managed from an environmental standpoint.

All maintenance sites including Government-Owned Facilities, Facilities Previously Owned by the Government and pristine sites will require an Environmental Management Plan.

3.6.5.3.1 Minimum Requirements

- a. The Prospective Contractor must provide a written commitment that he will, by September 1, 2006, supply and implement Environmental Management Plans in accordance with the provisions of the "Environmental Management Plan Guidelines Highway Maintenance Yards" for all maintenance facilities.

3.6.5.4 Salt Management Plans

Alberta Infrastructure and Transportation is required to develop and implement a Salt Management Plan (SMP) under the Environment Canada Code of Practice for the Environmental Management of Road Salts (April 2004). The department has committed to reporting information regarding the implementation of our salt management plan as prescribed in the Code beginning in June, 2005 in order to allow Environment Canada to follow-up on road salts use and management in Canada.

3.6.5.4.1 Minimum Requirements:

- a. Prospective Contractor must provide a written commitment that all winter maintenance activities will be carried out in compliance with the department's Salt Management Plan included in this RFP.
- b. Prospective Contractor must provide a written commitment that he will ensure that his staff is made aware of their responsibilities in accordance with the policies and procedures set out in the Salt Management Plan.

3.6.5.5 Winter Service Delivery

In order to ensure delivery of appropriate "Levels of Service" the Provincial Highway network, without the risk of loss service to the traveling public, it is important that Alberta Infrastructure and Transportation be able to compare contract proposals to a pre-determined case.

The Prospective Contractor will be required to provide a complete Winter Service Delivery Plan in accordance with the "Winter Service Delivery – Details" document included in this RFP.

Some of the minimum requirements describe below should be summarized in a tabular format. Headers to include;

- Site Name
- Total Number of Trucks
- Total Number of Operators per site
- Total Number of Trucks with two way plows
- Total Number of Trucks with Right Sided Wings
- Total Number of Trucks with Left Sided Wings
- Total Number of Trucks with Dual Wings
- Total Number of Trucks with underbody plows
- Total Number of Trucks with pre-wetting devices
- Total Number of Single Axle trucks

3.6.5.5.1 Minimum Requirements

- a. The Prospective Contractor must accurately complete all the tables identified in the “Winter Service Delivery - Details” document included with this RFP. Computer software is included in this RFP to assist the Prospective Contractor with this task.
- b. Comply with the Winter Snowplowing delivery time requirements identified in the Special Provisions.
- c. Comply with the Snowplow truck allocation requirements identified in the Special Provisions.
- d. Comply with the Winter sand/salt application delivery time requirements identified in the Special Provisions.
- e. Comply with the Cumulative Network Time Requirements identified in the Special Provisions.
- f. Provide the minimum number of snow plow units with a hopper size 8.5 cubic meters or greater identified in the Special Provisions.
- g. Provide the minimum number of snow plow operators as calculated in the Winter Service Delivery.
- h. Provide the minimum number of pre-wetting devices identified in the Special Provisions
- i. Provide the minimum number of two-way plows identified in the Special Provisions.
- j. Provide the minimum number of under-body plows identified in the Special Provisions.
- k. Provide the minimum number of right sided wings identified in the SPs.
- l. Provide the minimum number of left sided wings identified in the Special Provisions.
- m. Provide the minimum number of dual wings identified in the Special Provisions.
- n. Provide the number of single axle trucks identified in the Special Provisions.
- o. Provide a written commitment to equip all snowplow trucks with the Department's selected AVLS.

3.6.5.6 Motor Graders For Snow/Ice Control on Paved Surfaces

Prospective Contractors shall identify their plan for provision of motor graders for winging shoulders.

3.6.5.6.1 Minimum Requirement

- a. Number of graders provided must meet or exceed number of graders requested within specific areas identified within the Special Provisions.

3.6.6 Motor Graders For Gravel Surfaces

The Prospective Contractor shall provide a plan for provision of motor grader services on all identified gravel roadways in accordance with the Grader Service Delivery Details for Gravel Surfaces document included in this RFP.

3.6.6.1 Minimum Requirements

- a. The Prospective Contractor's grader plan meets the grader service delivery requirements.
- b. The Prospective Contractor to provide Grader Beat Maps. Storage locations of the graders during the summer and winter must be indicated on the map.
- c. Demonstrate that the number of motor graders complies with the maximum utilization per grader.
- d. Demonstrate that each proposed circuit be completed within the maximum "time to complete".
- e. Identifying suitable back-up plans for motor grader breakdowns and operator unavailability.
- f. Identifying specific arrangements for supplemental resources in emergency situations, such as reciprocal agreements, or other types of equipment (i.e. farm, tractors, loaders, etc.).

3.6.7 Repair Of Equipment

The Prospective Contractor shall provide a plan for repair of major equipment, specifically, to identify repair locations, facilities, mechanics, the number/distribution of mobile service trucks and spare equipment and contingency plans for repair/ replacement of sub-contractor's equipment. The Prospective Contractor is responsible to ensure that sufficient resources are in place to compensate for mechanical breakdowns. Contract response times for snow removal and ice control must be met at all times during the specified availability period.

3.6.7.1 Minimum Requirements

- a. Prospective Contractor's plan to identify the location of repair facilities, mechanics, service vehicles and spare equipment.
- b. Prospective Contractor shall provide a contingency plan for repair/ replacement of sub-contractor's equipment
- c. Prospective Contractor's plan to identify the pre-winter season preparations for winter snow/ice control equipment

3.6.8 Staff Training

Training is major component in the highway operations. It is imperative that staff are well trained in the jobs they perform.

3.6.8.1 Minimum Requirements

- a. The Prospective Contractor must provide a written commitment that he will, within 60 days after contract award, submit a Comprehensive Staff Training Plan, to the department. The plan shall include all maintenance work activities as well as, environmental management, and salt management issues. Details and timelines for all aspect on the plan including classroom and field training shall be included in this plan. The table of contents of this plan with a brief description of each major heading must be included in the Proposal.
- b. The Prospective Contractor to provide a written commitment that they will work jointly with the department on developing and ensuring their employees receive training on programs that improve on the maintenance operations.

3.6.9 Safety Plan

The Proposal will be evaluated with regards to safety from the standpoint of the Prospective Contractor's policies, emergency response, safe work practices, training, and work site traffic accommodation, in carrying out the Work.

3.6.9.1 Minimum Requirements

- a. The Prospective Contractor must, submit a written emergency preparedness plan for public safety to the department, which deals with environmental disasters, road closures, smoke hazards and dangerous goods spills and which identifies the appropriate contacts. The emergency preparedness plan shall include a list of the Contractor's resources that will be available to react to emergencies.
- b. The Prospective Contractor must provide a written commitment that he will, within 60 days after contract award, submit safe work practices and job procedures to the department for all maintenance activities where his staff may be at risk from the traveling public, or the traveling public at risk from the work being conducted. Activities would include, but not be limited to, snow and ice control, crack sealing, pothole patching, and pavement repair. The Prospective Contractor shall describe how he will ensure any subcontractors will follow the safe work practices and job

- procedures outlined by the Prospective Contractor The table of contents of this plan must be included in the Proposal.
- c. The Prospective Contractor must submit a fatigue management plan to the department, covering activities which would typically involve extended hours of work by employees, operators or subcontractors.
 - d. The Prospective Contractor must provide a written commitment that he will, within 60 days after contract award, submit Traffic Accommodation Strategies plan for all highway maintenance work activities to the department. Each Traffic Accommodation Strategy shall consist of drawings detailing the configuration of temporary signs and other traffic control devices in accordance with the latest editions of the Alberta Transportation Traffic Accommodation in Work Zones and Traffic Accommodation in Urban Work Zones manuals. Strategies shall also include written confirmation of the methods or procedures being used by the Prospective Contractor to address specific safety related issues or situations within each work zone. The table of contents of this plan must be included in the proposal.
 - e. The Prospective Contractor shall submit a written policy for conducting safety meetings, which encompasses toolbox meetings, regularly scheduled safety meetings, and pre-seasonal meetings, and which requires the minutes and an attendee list be recorded.

3.7 DETAILS FOR ANALYSIS OF PRICING

The individual components of Envelope 3 will be assessed using the key points outlined in this section as the basis for evaluation. The evaluation will be based on the bid prices provided by the Prospective Contractor in the Unit Price Schedule. The Department will assess the Prospective Contractor's total price for the work (in a specific Contract Maintenance Area) and also test the prices for specific components of the work under a variety of scenarios. The results obtained then will be compared to all other Proposals (for that Contract Maintenance Area).

In addressing the content of Envelope 3, the Prospective Contractor shall note that it is a competitive process and that the Department is attempting to determine the best overall value for money for the duration of the Contract. The process will also enable the Department to confirm which of the Proposals provides the Department with the best value in the event of cyclical variations in the actual work quantities and will also conduct an for unbalanced bid check.

3.7.1 Total CMA Cost

For each Contract Maintenance Area in a Proposal, the Total CMA Cost will be determined using Provisional Quantities and bid prices. This value will include fixed costs and provisional costs.

The Proposal providing the lowest Total CMA Cost will score 860 points. The remaining CMAs in each Proposal will be scored using the following formula:

$$860 \times (1 - ((\text{Proposal } \$ - \text{Lowest Proposal } \$) / \text{Lowest Proposal } \$))$$

This process will reward those Proposals, which provide the lowest Total CMA Cost by giving them a score of 860 points.

3.7.2 Scenario #1

This scenario will test the Prospective Contractors bid prices for winter operations and will be based on a single winter season in which severe conditions have been encountered which will result in a **30% increase** in winter work quantities above that indicated in the Unit Price Schedule (for each Contract Maintenance Area). The total value for the scenario will be determined using calculated work quantities and the Proposal bid prices.

The Proposal providing the lowest scenario value will score 5 points and the one providing the highest scenario value will score 1 point.

The remaining Proposals will be scored by dividing the range between the lowest scenario value and the highest scenario value into three equal parts. Each of these parts will then be assigned a value between 4 and 2 points with the part in the lowest scenario value being assigned a score of 4. The remaining parts will receive diminishing scores, as the scenario value becomes higher.

The remaining Proposals will then be compared to this distribution and scores assigned based on the range they fall within. This process will reward those Proposals, which provide the lowest scenario value by giving them a score of 5 points. As an example, the second best Proposal, which may not provide as low a price, may only score 3 points.

3.7.3 Scenario #2

This scenario will test the Prospective Contractors bid prices for major summer operations and will be based on a single summer season in which the anticipated work load has been decreased which results in a **20% decrease** in summer work quantities indicated in the Unit Price Schedule (for each Contract Maintenance Area). The total value for the scenario will be determined using calculated work quantities and the Proposal bid prices.

The Proposal providing the lowest scenario value will score 5 points and the one providing the highest scenario value will score 1 point.

The remaining Proposals will be scored by dividing the range between the lowest scenario value and the highest scenario value into three equal parts. Each of these parts will then be assigned a value between 4 and 2 points with the part in the lowest scenario value being assigned a score of 4. The remaining parts will receive diminishing scores, as the scenario value becomes higher.

The remaining Proposals will then be compared to this distribution and scores assigned based on the range they fall within. This process will reward those Proposals, which provide the lowest scenario value by giving them a score of 5 points. As an example, the second best Proposal, which may not provide as low a price, may only score 3 points.

3.7.4 Scenario #3

This scenario will test the Prospective Contractors bid prices for winter and summer operations which will result in a **20% decrease in winter** work quantities and a **30% increase in summer** quantities as compared to the Unit Price Schedule (for each Contract Maintenance Area). The total value for the scenario will be determined using calculated work quantities and the Proposal bid prices for the winter and the summer.

The Proposal providing the lowest scenario value will score 5 points and the one providing the highest scenario value will score 1 point.

The remaining Proposals will be scored by dividing the range between the lowest scenario value and the highest scenario value into three equal parts. Each of these parts will then be assigned a value between 4 and 2 points with the part in the lowest scenario value being assigned a score of 4. The remaining parts will receive diminishing scores, as the scenario value becomes higher.

The remaining Proposals will then be compared to this distribution and scores assigned based on the range they fall within. This process will reward those Proposals, which provide the lowest scenario value by giving them a score of 5 points. As an example, the second best Proposal, which may not provide as low a price, may only score 3 points.

3.7.5 Unbalanced Bid Check

For the unbalanced bid check component valued at 5 points, a comparison will be made of the Prospective Contractor's Proposal unit prices against the existing provincial average unit prices, where applicable. The intent is to look at the degree of change in these unit prices, assess added risk to the Department and check for unbalanced pricing.

Proposals, which present the least risk to the Department with balanced prices, will score the best when compared to the other proposals.

WINTER SERVICE DELIVERY

DETAILS

January 2005

TABLE OF CONTENTS

INTRODUCTION	1
BASIC OBJECTIVES & STRATEGY	1
STRATEGIC PLACEMENT OF ECONOMIC FACILITIES	2
BASIC ELEMENTS OF “LEVEL OF SERVICE” (LOS)	2
HIGHWAY CLASS	3
DEFINITIONS OF “DIFFERENT BUT SIMILAR” OVERALL	3
TRUCK DEMAND FACTOR.....	4
BASE NUMBER OF TRUCKS.....	4
PRELIMINARY MINIMUM NUMBER OF REQUIRED TRUCKS	4
COMPARING LEVELS OF SERVICE.....	6
SECTION DEFINITION	6
BASE CASE LEVELS OF WINTER SERVICE DELIVERY	6
COMPARISON OF CONTRACTOR’S PROPOSED WINTER SERVICE DELIVER MODEL.....	7
DEFINITIONS.....	8
PLOW TIME.....	8
SAND TIME	8
TRUCK ALLOCATION	8
CUMULATIVE LEVEL OF SERVICE DELIVERY TIME (BY CLASS).....	9
ORGANIZATION OF DATA	10
HIGHWAY WORKSHEETS	10
Main Hwy worksheet:	10
Truck Demand worksheet:	10
SHOP WORKSHEETS.....	11
Allocation of Trucks (assigning truck beats):	11
Data Requirements for Snowplowing Analysis	11
ASSIGNMENT TO THE FIRST SECTION.....	12
CROSS-OVER SEGMENT (#99).....	15
MATERIAL SPREADING ANALYSIS.....	16
TIME TO COMPLETE SPREADING.....	16
FIRST ASSIGNMENT	17
SECOND AND SUBSEQUENT ASSIGNMENTS	18
SECOND AND SUBSEQUENT ASSIGNMENTS	19
Spread Time worksheet.....	20
EXAMPLE OF SHOP WORKSHEET DATA REQUIREMENTS.....	21
Example of Shop worksheet data requirements	21
Step E: Haul distances.....	22
Answers for Typical Examples for Plowing and Spreading	23
MAPS.....	23
HOTSPOTS	23
TROUBLE SPOTS	23
CONTRACT SPECIFICATIONS FOR WINTER SERVICE DELIVERY PLAN.....	24
PLOWING DELIVERY REQUIREMENTS	24
SANDING/SALTING DELIVERY REQUIREMENTS	25
TRUCK ALLOCATION REQUIREMENTS	25
CUMULATIVE NETWORK LOS TIME REQUIREMENTS	28

PROSPECTIVE CONTRACTOR'S PROCEDURE FOR WINTER SERVICE
DELIVERY PLAN 30
ASSESSMENT OF WINTER SERVICE DELIVERY PLAN 31
SPIRIT & INTENT OF WINTER SERVICE DELIVERY 31

Introduction

In order to ensure consistent delivery of winter maintenance services on the Provincial Highway network when contracts are awarded, it is important that Alberta Transportation ensure contract proposals work plans meet the minimum qualification of providing the same, or slightly better, level of winter maintenance services as are currently being provided. To do this, contract proposals must include a winter service delivery model that will be compared to a pre-determined base case model.

In their proposals, prospective contractors will select locations for their sand/salt stockpile sites and the storage locations of their snowplow trucks. In planning and selecting their sites, it is very important that their allocation of resources (stockpiles and trucks) be well placed and strategic to the operation. In order to achieve this goal, the required level of “WINTER SERVICE DELIVERY” is identified by the base case data provided in the Request for Proposal (RFP) for each Contract Management Area (CMA). A base case number of Snowplow units is allocated and identified in the RFP for each CMA, along with “WINTER SERVICE DELIVERY” allowable delivery times for plowing and spreading winter maintenance materials (sanding/salting). In order to define the requirements on the new highway network, snowplow trucks are assigned based on activity requirements for each section of Highway based on its highway class, which is determined by Average Annual Daily Traffic volume (AADT).

In order to present and order the data in an easily understood fashion, a breakdown was developed as shown below:

Basic Objectives & Strategy

The following is list of objectives the Department wishes to achieve in “Snow/Ice Delivery”:

- Retain overall “Winter Highway Maintenance Level - of - Service”.
- Encourage development of economic maintenance facilities.
- Encourage prospective contractors to find efficient methods for snow and ice control work.
- Tender selection is an objective process.
- Efficiencies must be “built-in” to the tender.
- Risk is shared, but the Province carries the majority of the risk for winter weather.
- Bidding must be fair to all prospective contractors, and as far as possible should not be excessively complicated.
- Electronic aids to permit prospective contractors to develop their winter service delivery model are supplied.
- The Province does not want to better service, just the same service (but no less), at the lowest possible cost.

- Give prospective contractors the room to “move” and make business decisions in accordance the contract specifications, to operate in the most efficient manner possible.

Strategic Placement of Economic Facilities

The Department has devolved ownership of maintenance facilities to encourage development of other sites, within the following guidelines:

- New sites must be affordable and not add unduly to indirect operating cost.
- Site locations must encourage an efficient maintenance operation.
- Sites must be strategically placed to provide service to the public.
- Prospective bidders will be able to balance site placement with the number of trucks required in their proposal.
- For each class of highway, all sections of highway are treated in the same manner.
- Overall in classes, or groups of classes, the maximum allowable time to finish work remains the same.
- Where appropriate, some government – owned facilities and sites are acceptable and may be available for lease by the successful contractor. These sites are identified in the Special Provisions.

Basic Elements of “Level of Service” (LOS)

The department expects that each Prospective Contractor will submit slightly proposals that meet the contract requirements but have differences in detail. Each proposal must be compared to a benchmark “Base Case” to determine the best Winter Service Delivery plan. The elements of comparison are listed below:

- Proposals are compared under the same conditions.
- Actual conditions may be different.
- A standard truck configuration is used for all evaluations, with allowances for hopper size.
- Beats for plowing are the same as spreading material (sand or salt application).
- All trucks drive the same speed.
- All trucks apply materials at a predetermined rate.
- Specific methods for calculating time to complete work in the model are the same for all proposals.
- Plowing and material spreading application “Time to complete” (or delivery time) is used for comparison.
- The ‘Base case’ is documented in the Request For Proposal package.

Highway Class

To protect the “Base case” or existing level of service, all roadways are split into sections:

- Each sections requires similar maintenance over it’s entire length.
- Each section has a “highway class”.

Class of Highway	Traffic Volume(AADT)
A	>15,000
B	7,000 –15,000
C	5,000 –7,000
D	2,000 –5,000
E	1,000 – 2,000
F	500 –1,000
G	100 – 500
H	<100

- Maximum allowable delivery time for plowing & sanding/salting will be determined for each section, by highway class by the department. These maximum allowable delivery times can not be changed by the Prospective Contractor.

Definitions of “different but similar” overall

Competitive proposals will be compared in the following areas:

- How well the material stockpiles are distributed within the provincial highway network, compared to the existing situation. The decisions of the prospective contractor on where to locate material stockpiles will affect how many plow trucks are required to do the work.
- The maximum allowable delivery time to complete work on each section of highway is based on provincial standards and/or the time actually required in the “Base Case” model.
- Overall delivery time by class of highway is documented in the “Base Case” model.
- Delivery time for any individual section can vary from the “base case” as long as it remains less than the maximum allowable for that section.
- Delivery time will vary with the physical position of sites, relative to highways, other sites and the suitability of haul roads.
- More than one truck can work on a single section of highway.
- The completion time for the last truck working in a section will be the delivery time for that section.
- The individual times for each section will be added up in a “cumulative total”.

- Specifications will be provided indicating maximum “cumulative total time” for classes or groups of classes.
- The total of all “cumulative total times” for all classes of highways must be less than total for the “base case”.

Truck Demand Factor

All RFP documents will have a “Base Truck Demand Factor” identified within the Special Provisions section. This factor, as calculated, is equivalent to the haul required to bring one cubic meter of sand per two lane equivalent kilometre (2LEKm) over the entire CMA highway network, from existing facilities.

The Prospective Contractor, who may have different locations for facilities, is asked to calculate a proposed demand factor in his proposal. This factor is used to evaluate the number of preliminary minimum number of trucks needed in his proposal.

Base number of Trucks

Each RFP for a CMA will identify within the Special Provisions Section a base number of snowplow trucks for that CMA. A proposal may be for one or several CMAs, and have any number of trucks that satisfy the calculations described below.

Preliminary Minimum Number of Required Trucks

The Prospective Contractor will be asked to calculate the preliminary minimum number of snowplow trucks required in the proposal. The calculation will be as shown below:

Preliminary Minimum number of trucks required for the proposal =

{[Proposed Truck Demand Factor]/ [Base Truck Demand Factor]} * Base Number of Trucks

A Microsoft Excel 2003 spreadsheet is provided in the tender document to assist the Prospective Contractor in calculation of “Proposed Truck Demand Factor”, using the Truck Demand worksheet. The minimum number of trucks calculated by the formula above may be rounded up or down at the prospective contractor’s choice, so long as all other requirements are satisfied.

A view of how the electronic spreadsheet looks follows:

Microsoft Excel - Trais CMA 10 Oct04.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

80%

Arial 8

Section

	A	B	C	D	E	F	G	H	I	K	L	N	O	Q
	Section n	Road	Description	Total Length	Total Assign	Section TDF	Entire section included?	km assign	Distance to pile	km assign	Distance to pile	km assign	Distance to pile	km assign
1	1	2 36	Legal, Jct. 651 to Jct hwy 18:10 W. of Clyde + AR 79 1.37 KM	24.82	24.82	372.55	Yes	24.82	2.60					
3	2	2 38	Jct 2:36 to Jct SH 661 W of Rochester +AR 160 2.82 KM	32.08	32.08	546.64	Yes	32.08	1.00					
4	3	2 40	Rochester Access - Athabasca	44.46	44.46	988.35	Yes	44.46						
5	4	2 42	Jct. Hwy 55 - West Cty Bdry	38.88	38.88	794.71	Yes	38.88	1.00					
6	5	2 44	Cty Bdry to Jct Hwy 44	33.55	33.55	797.65	Yes	33.55	7.00					
7	6	2 46	Jct 2 & 44 to Otauwau R.	32.30	32.30	1029.08	Yes	32.30	15.71					
8	7	2A 44	Jct Hwy 2 - Smith	14.74	14.74	108.63	Yes	14.74						
9	8	18 06	Jct hwy 43 to km 33.90 Barrhead County line	33.97	33.97	1704.44	Yes	33.97	33.19					
10	9	18 08	Km 0.00 E. of Romeo Lake to Jct hwy 33:06	31.89	31.89	549.94	Yes	31.89	1.30					
11	10	18 10	Jct 33:06 to Jct 776 Linaria Corner	17.56	17.56	187.54	Yes	17.56	1.90					
12	11	18 10	km 17.56 Lin Corner to Jct hwy 2:36 W of Clyde	40.46	40.46	923.70	Yes	40.46	2.60					
13	12	18 12	Jct 2:38 to Km 18.80 Westlock County Boundary	18.80	18.80	176.72	Yes	18.80						
14	13	22 32	Jct hwy 43 to Jct hwy 18:06	6.68	6.68	426.45	Yes	6.68	60.50					
15	14	33 04	Km 12.99 N of Rich Valley to Pembina River	18.03	18.03	453.36	Yes	18.03	16.13					
16	15	33 06	Pembina R Bridge S of Barrhead to Jct 18:10	18.13	18.13	164.35	Yes	18.13						
17	16	33 08 & 33 10	Jct 33 06/18:10 to North of Jct 658:02	45.41	45.41	1117.31	Yes	45.41	1.90					
18	17	44 02	Jct 18:10 to Jct 661 Dapp +AR 73 1.63 km	25.55	25.55	685.12	Yes	25.55	14.04					
19	18	44 00	Jct SH 651 E of Busby to Jct Hwy 18:10 Westlock	23.10	23.10	591.13	Yes	23.10	14.04					
20	19	44 02	Jct. 661 Dapp - North Fawcett + AR 81 1.59 km & AR 83 0.82 km	34.19	34.19	1158.87	Yes	34.19	16.80					
21	20	44 04	Fawcett - Jct Hwy 2 incl AR 82 Km 3.30	53.93	53.93	1199.84	Yes	38.67		15.26	22.00			
22	21	55 10	Jct. Hwy 2 - Town limit	5.00	5.00	17.50	Yes	5.00	1.00					
23	22	55 10	Town limit to Jct hwy 6301	28.80	28.80	568.80	Yes	28.80	5.35					
24	23	651 02	Jct hwy 33 to km 24.04 Barrhead County line	24.04	24.04	730.09	Yes	24.04	18.35					
25	24	651 02	Km 24.04 Westlock County to Jct 794 (Hwy 44:00)	13.73	13.73	604.19	Yes	13.73	37.14					
26	25	654 02	Jct 764 to Jct 33 06	17.86	17.86	413.99	Yes	17.86	14.25					
27	26	654 04	Jct hwy 33 06 to Jct SH77:04	21.20	21.20	387.11	Yes	21.20	7.66					
28	27	655 02	Jct 763 to Mystery Lake	9.83	9.83	325.03	Yes	9.83	28.15					

Assignment / Main Hwy Table / **Truck Demand** / Shop #1 / Shop #2 / Shop #3 / Shop #4 / Shop #5 / Shop #6 / Shop #7 / Shop #8 / Shop summary / Flow Time / Spread Tim

Ready NUM

The Prospective Contractor is asked to identify all the sources of sand/salt in relation to the highway sections nearby.

The calculation of the minimum number of truck for a proposal with multiple CMAs shall be done in one calculation. The cumulative totals of the various CMAs in the proposal “Proposed Truck Demand Factor”, “Base Truck Demand Factor” and “Base number of Trucks” will be used.

Comparing Levels of Service

Highway sections (paved highways only) for a CMA have been classified by AADT, and are listed in the Base Case winter service delivery model provided in the RFP document. Along with the base case data defining the Sections, a distance to the existing stockpile location for sand/salt is given for each section. The “Base Truck Demand Factor” is calculated from this information and is also listed on the base case spreadsheet provided with each RFP package.

Section Definition

A section is defined as follows: *A single length of one highway that has a similar traffic volume (AADT), within the same CMA.*

Alternative proposals with different storage locations for sand/salt/trucks will be compared against each other and the established base utilizing exactly the same sections.

Sections are pre-identified for each CMA and will remain the same for the complete analysis.

Allocation of plow trucks (**truck allocation**) will vary from Class to Class. Class A sections have a much larger volume of traffic, and require more trucks (**truck allocation**) than, say, a Class E with much less traffic.

Note: Assignment of the # of kms per truck for each Class of Highway will be identified in the RFP for each CMA and must be used as given by the prospective contractor.

Base case Levels of Winter Service Delivery

In the RFP evaluation process, Alberta Transportation has not specified the locations for sand/salt stockpiles and truck storage. The RFP process permits “room” for the Prospective Contractor to propose the best combination of sites for maintenance facilities.

In order to allow for comparison all proposals will be compared to the established “Base case”.

Department Staff have established the “Base case” for the provincial highway network within a CMA, from which “Levels of Service” requirements were developed. The “Winter Service Delivery” requirements establish benchmarks for each CMA using the following rationale:

- Current shop information known.
- The existing plow truck fleet has known beats and locations.
- Alberta Transportation staff established assignments for each truck in the CMA. This data now forms the Base Case model from which the specified

requirements for winter snowplowing (**Plow Time**) and sanding/salting (**Spread Time**) are derived.

Note: Copies of the “Base Case” worksheets for each CMA are included in the RFP.

A view of the “Main Highway Table” worksheet follows:

Sec	Road	Class	Description	2 Lane Equiv Length	AADT	Distance to Shop	Allowable plowing time	Allowable sand/ salt time
1	2 36	D	Legal, Jct. 651 to Jct hwy 18:10 W. of Clyde + AR 79 1.37 KM	24.82	4620	11.32	3	4
2	2 38	D	Jct 2:36 to Jct SH 661 W of Rochester +AR 160 2.82 KM	32.08	4190	16.9	3	4
3	2 40	D	Rochester Access - Athabasca	44.46	2684	22.23	2 - Hot Spot	3.5 - Hot Spot
4	2 42	D	Jct. Hwy 55 - West Cty Bdry	38.88	2360	21.2	2 - Hot Spot	3 - Hot Spot
5	2 44	G	Cty Bdry to Jct Hwy 44	33.55	410	24.5	5	10
6	2 46	D	Jct 2 & 44 to Otauwau R.	32.30	2432	8.5	2 - Hot Spot	3 - Hot Spot
7	2A 44	F	Jct Hwy 2 - Smith	14.74	640	6.3	4	8
8	18 06	F	Jct hwy 43 to km 33.90 Barrhead County line	33.97	480	50.7	4	8
9	18 08	E	Km 0.00 E. of Romeo Lake to Jct hwy 33:06	31.89	1420	17.8	3	6
10	18 10	E	Jct 33:06 to Jct 776 Linaria Corner	17.56	1530	11.2	3	6
11	18 10	D	km 17.56 Lin Corner to Jct hwy 2:36 W of Clyde	40.46	2910	19.5	3	4
12	18 12	E	Jct 2:38 to Km 18.80 Westlock County Boundary	18.80	1040	8.7	3	6
13	22 32	E	Jct hwy 43 to Jct hwy 18:06	6.68	1070	64.2	4.5	10.5
14	33 04	D	Km 12.99 N of Rich Valley to Pembina River	18.03	1860	25.3	3	4
15	33 06	D	Pembina R Bridge S of Barrhead to Jct 18:10	18.13	3720	8.6	3	4
16	33 08 & 33 10	E	Jct 33 06/18:10 to North of Jct 658:02	45.41	1530	36.14	3	6
17	44 02	D	Jct 18:10 to Jct 661 Dapp +AR 73 1.63 km	25.55	2520	25.36	3	4
18	44 00	D	Jct SH 651 E of Busby to Jct Hwy 18:10 Westlock	23.10	2980	25.59	3	4
19	44 02	D	Jct. 661 Dapp - North Fawcett + AR 81 1.59 km & AR 83 0.82 km	34.19	2120	20.7	3	4

Certain cells in the blank winter service delivery spreadsheet file are protected so that they cannot be altered. It is the prospective contractor’s responsibility to ensure that the formulas used to calculate completion times and truck allocation in the spreadsheet are not changed from the blank files given with the RFP.

Comparison of Contractor’s Proposed Winter Service Deliver Model

Proposals will be compared and evaluated in the following manner:

- Preliminary Minimum number of plow trucks required for the proposal (**Truck demand factor**)
- Time to Plow a section (**Plow Time**)
- Time to Sand/Salt a section (**Spread Time**)

- Maximum lengths of beat assignments for truck in covering all Sections (**Length Assigned**)
- Total Time to complete delivery of service to all sections based on roadway Class or group of Classes for each CMA (**Cumulative Network LOS Delivery time**)

NOTE: Calculations of work times in the model use assumptions and mathematical calculations. Delivery time in the model is not intended to calculate the actual time required to do the work, but a time that measures strategic placement of facilities within the network for comparison purposes. Details of the assumptions and calculations can be found in the following section.

DEFINITIONS

Basic definitions of the “Levels of Service” requirements based on “Winter Service Delivery” are shown below:

Plow Time

The time it takes a snowplow truck to complete the initial pass of all travel lanes (includes one pass over travel lanes in interchanges, climbing lanes and passing lanes), in the section, measured from the time the trucks start. All trucks drive at an average speed of 46 km/hr at all times (including time spent at stops, deadheading, and loading).

Sand Time

The time it takes for snowplow trucks to make one pass of sanding/salting all travel lanes in the section. The maximum time is measured from the time the trucks start until the assigned length of section is treated. All trucks are assumed to travel at an average speed of 46 km/hr when spreading sand/salt, and 80 km/hr when deadheading, and distribute sand/salt at 0.24 cubic metres per lane kilometer. The prospective contractor will specify each truck’s hopper capacity, which will determine the distance of highway treated per hopper load.

Truck Factor

The number of 2-lane equivalent kilometres of highway that will take the full attention of one truck under normal circumstances. The Truck Factor varies by class of highway; busy roads (i.e. Class A, B and C sections) require more care and attention and have a shorter response time, so any one truck can only look after a few kilometers of highway. Low volume roads (i.e. Class G or H sections) have a longer response time and will not be treated as often, so one truck can look after more kilometers.

Truck Allocation

Plow trucks are assigned to work on sections of highway until the truck is fully committed. The total number of kilometers that a truck can handle varies according to the classes of the highway sections that the truck works on. When a plow truck is assigned to work on a section, the number of kilometers that are assigned in that section will be used to calculate what percentage of the truck's full allocation has been assigned.

- *For example, if a truck worked exclusively on Class B highway sections that had a Truck Factor of 35 2LEKm per Truck, then that truck could only work until it was assigned to sections or partial sections equal in length to 35 2LEKm.*
- *In a CMA that had a Factor of 32 2LEKm/Truck for Class B highways and 80 2LEKm/Truck for Class F highways, a truck with its first assignment to a Class A section 16 2LEKm long was 50% allocated (16/32 = 50% allocated).*
- *If the next section assigned to the truck was a Class F section, the truck could only work on 40 2LEKm before it was 100% allocated. (50% + 40/80 = 100% allocated)*
- *If the length of that Class F section was only 20 2LEKm, then the truck was only 75% allocated and it could be assigned to work on another section. (50% + 20/80 = 75% allocated)*

A truck is over - allocated when it has a truck allocation greater than 100%. Trucks are usually assigned to a truck allocation between 95% and 105%.

An "Assignment" worksheet will be specified in the special provisions for each CMA and will include the Truck Factors (kms/truck by class) to be used for the allocation of trucks from the minimum number of trucks allowed up to the "Base Case" number specified for that CMA. In the event the contractor wishes to propose more trucks than the "Base Case" Truck Factor, he will be allowed to allocate a Truck Factor as he feels most appropriate within the range of a minimum beat assignment of 25 kms per truck and the assigned number of kms for the "Base case" truck allocation per Class for the CMA. Otherwise, the prospective contractor must use the Truck Factors for each class of highway, given in the Special Provisions.

Cumulative Level of Service Delivery Time (by Class)

The time to plow (**Plow Time**) and also to spread winter sand/salt materials (**Spread Time**) for each section is calculated in the "Shop" worksheets, and then totaled in the "Time" worksheets. Each Class or group of Classes is assigned a total specified time for completion based on "Base Case" data analysis and all proposals will be required to meet or better the specified total times.

The time to complete any individual section for cumulative LOS will be the running time of the last truck to finish working in that section.

Note: A copy of the "Base Case" model for each CMA is included in the RFP.

Organization of Data

To assist prospective contractors in preparing their bids, a compact disk is included with each RFP. On the disc is a complete set of Microsoft Excel 2003 spreadsheets that should be used to calculate the proposed resources (sand/salt stockpile locations, and number of trucks) for “WINTER SERVICE DELIVERY”. Also included in the RFP is a “Base Case” file from which the specified requirements were determined.

The entire highway network for each CMA has been broken down into sections based on “Class of Highway” for analysis purposes. A “Base number of Trucks” is specified in each RFP and is the number of trucks assigned to the CMA for the base case analysis.

The Base Case data will be presented and used in preparing the Contract “Winter Service Delivery” proposal in the following way through the use of linked spreadsheet Worksheets:

Highway worksheets

Main Hwy worksheet:

In this worksheet, all paved highways within the CMA are broken into sections. The description of the sections includes the Class of Highway, the 2-lane equivalent length

Allowable (**Plow Time**) and allowable (**Sand Time**) are shown in this worksheet. Links are in place to also display this data in the other worksheets, where appropriate.

Truck Demand worksheet:

This worksheet is used to calculate the total truck demand for the CMA, based on the location of the material stockpiles and the travel distance to the various highway sections.

Any section of highway can have more than one set of material stockpiles. The column “km assigned” is the 2LEK within the section that receive winter materials from a stockpile. The “Distance to pile” column is the one – way distance from the stockpile location to the nearest point on the highway section, in kilometres.

Each RFP contains a copy of the Base Case model spreadsheet, and blank copies of the spreadsheet file for the prospective contractor to use. The proposal truck demand factor will be automatically calculated in the “Truck Demand” worksheet once the ‘km assigned’ and ‘distance to pile’ columns are filled in.

Shop worksheets

The purpose of this group of worksheets is to assign each truck in a shop into rational and appropriate beats.

Proposals will be compared and evaluated based on the following:

- Time to Plow a section (**Time Plowing**)
- Time to spread winter materials over a section (**Time Spreading**)
- Truck allocation (**Total Truck Allocation**)

This approach allows for the calculation of the time required for the first pass plowing and sanding/salting each section of highway. All proposals will be evaluated using the same basic spreadsheet file.

Details on the functioning of the spreadsheets for the assignment of Truck Beats, inputting of Data required for the Plowing and Sanding/Salting Delivery Times Analysis follows:

Allocation of Trucks (assigning truck beats):

The spreadsheet will automatically calculate the truck allocation for each section assigned and accumulate the total for each assignment for each truck.

Once the trucks have been assigned to a beat and the required distance data inputted, the spreadsheet will calculate the time to deliver the plowing activity in the following manner:

Data Requirements for Snowplowing Analysis

Prospective Contractors are asked to familiarize themselves with the mathematical evaluation and ensure themselves of its accuracy. Factors included in the evaluation are:

- Travel distance (TD₁) from truck storage to start of the 1st assignment (S1),
- Length assigned to the truck in each section (S1, S2, etc.), and
- Subsequent travel distance (TD₂, TD₃, TD₄, etc.) between assignments.

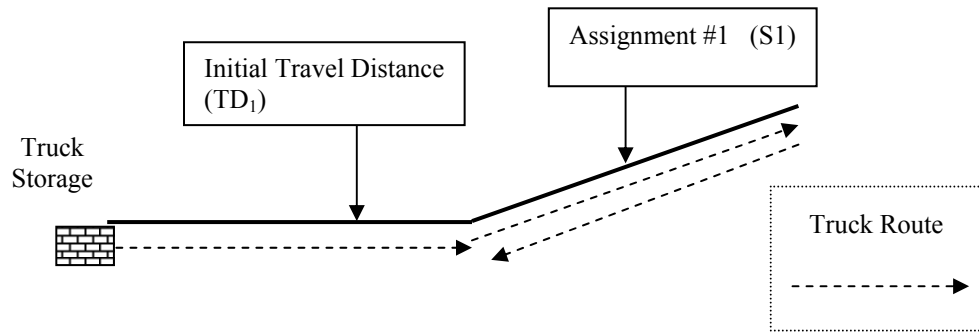
Travel distance is the distance from where the truck is now, and where the truck will start on the next assignment.

The Prospective Contractor is required to fill in all unshaded areas in the blank worksheet. This includes the shop name, assignments in order using the section number, travel and assigned distances within the section. The worksheet will

calculate truck utilization and cumulative plowing and spreading time to complete each assignment.

A sketch of the situation is provided below:

Assignment to the first section



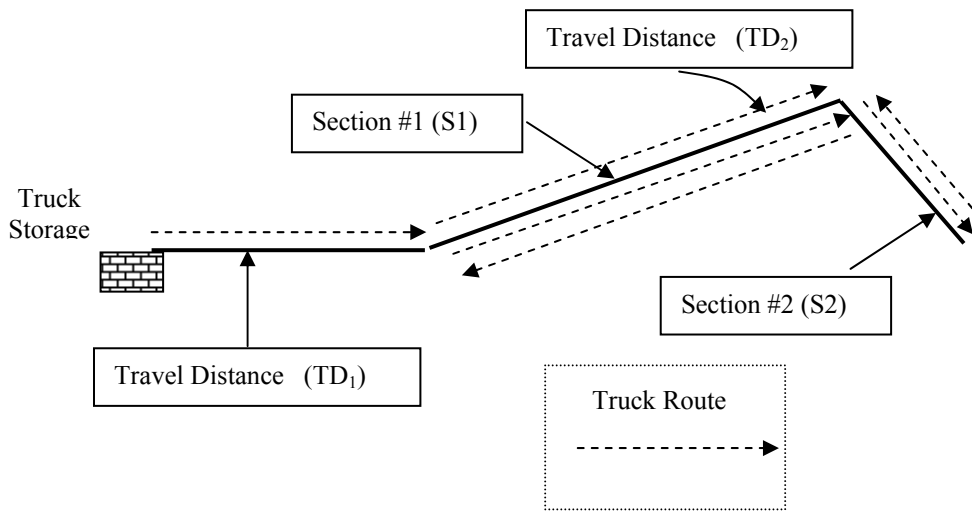
Time calculation:

The time (t_1) to complete is based on the “Travel Distance” (TD_1) with an “out and back” pass on Assignment #1 (S_1) and assuming the plow truck is going at a constant speed ($TS = 46 \text{ km/h}$).

Time Formula: $t_1 = (TD_1 + \{2 * S_1\}) / TS$

Note that the start point and end point of an assignment are always at the same place.

Assignment to the second section



Time calculation:

Travel time is the sum of travel times for individual assignments, including the time required to move from one assignment to the next. Travel time for the first assignment is calculated as example 1, above. Travel time for the second assignment (t_2) is calculated as:

Time Formula: $t_2 = (TD_2 + \{2 * S2\}) / TS$

Total travel time for assignments one and two is calculated as:

$$t_{1+2} = t_1 + t_2 = [(TD_1 + \{2 * S1\}) + (TD_2 + \{2 * S2\})] / TS$$

If the starting point of the next assignment is the same as the starting point of the assignment just completed, then the travel times between assignments is zero.

A view of a “Shop” worksheet in electronic format follows:

Shop Name & Location				Assignment 1								Assignment 2			
Truck #	Hopper Size (m ³)	Kms Assigned	Total Truck Allocation	Hwy	Description	Class	Segment #	TD (km)	Length (km)	Haul (km)	Time Plowing (hrs)	Time Spreading (hrs)	Hwy	Description	
1	8.5	40.0	1.05	2 40	South Athabasca Road to Jet Hwy 661 & Hwy 2	D	3	3.4	40.0	3.4	1.81	3.27			
2	8.5	33.8	0.89	55 10	Jac Hwy 2 to Town Limit	C	21	1.0	5.0	1.0	0.24	0.24	55 10		
3	8.5	38.9	1.02	2 42	Jet Hwy 55 to West County Bdy	D	4	1.0	38.9	1.0	1.71	3.16			
4	8.5	78.8	0.92	813 02	Km 25 to start of 813.04	E	42	27.0	10.1	27.0	1.03	1.12	813 04		
5	8.5	81.0	0.86	827 04	Jet 55:10 to Pine Creek	G	45	6.2	28.4	6.2	1.41	2.08	812 02		
6	8.5	60.9	1.03	44 00	Jet Hwy 551 E of Busby to Jet Hwy 18:10 Westlock	D	18	14.0	23.1		1.31	1.34	651 02		
7	8.5	54.8	0.87	2 40	South Athabasca Road to Jet 55 & 2	D	3			4.5	0.19	0.19	813 02		
8	8.5														
9	8.5														
10	8.5														
11	8.5														
12	8.5														
13	8.5														
14	8.5														
15	8.5														
16		Average Km/truck	Total Trucks Allocated in this shop												
17		55	6.55												
18															
19															
20	ADDITIONAL OPERATORS REQUIRED AT THIS SHOP														
21	1.00														
22															
23															
24															
25															
26															
27															
28															
29															
30															
31															
32															
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															
43															
44															
45															
46															
47															
48															

Plow Time Worksheet

The purpose of the Plow Time and Spread Time worksheets is to summarize and display the service delivery times calculated. This allows for easy comparison of the proposed and base case service delivery models. These worksheets are generated automatically by links, and no data is entered on them.

The Plow Time worksheet presents times calculated to complete work on each segment in the CMA in a workable manner, and calculates the cumulative time to complete all work for each class of highway (similar to the total truck operating hours to do one pass over the entire network using the assigned beats). Data from the Base Case “Plow Time” worksheet is used for each CMA as the reference point for determining and assigning the total allowable Delivery Times by Class or Group of Classes. These times are used for completion of the “Cumulative Network Plowing Time Specification”.

A view of the “Plow Time” worksheet in electronic format follows:

The screenshot shows an Excel spreadsheet titled "Tras CMA 10 Oct04.xls". The main data table is as follows:

Section	Road/Hwy	Class	Max Allowed Time (hrs)	Time (hrs)	1	2	3	4	5	6	7	8	9
1	2 36	D	3	OK	1.14								
2	2 38	D	3	OK	1.42								
3	2 40	D	2 - Hot Sp	OK	1.81						0.19		
4	2 42	D	2 - Hot Sp	OK	1.71			1.71					
5	2 44	G	5	OK	3.12								
6	2 46	D	2 - Hot Sp	OK	1.66								
7	2A 44	F	4	OK	2.17								
8	18 06	F	4	OK	3.59								
9	18 08	E	3	OK	1.41								
10	18 10	E	3	OK	0.80								
11	18 10	D	3	OK	1.82								
12	18 12	E	3	OK	1.99								
13	22 32	E	4.5	OK	4.47								
14	33 04	D	3	OK	1.92								
15	33 06	D	3	OK	0.79								
16	33 08 & 33 10	E	3	OK	2.02								
17	44 02	D	3	OK	1.42								
18	44 00	D	3	OK	1.31					1.31			
19	44 02	D	3	OK	1.85								
20	44 04	D	3	OK	1.68								
21	55 10	C	1 - Hot Sp	OK	0.24		0.24						
22	55 10	D	3	OK	1.56		1.56						
23	651 02	F	4	OK	3.75					3.75			

Summary table for Plow Cumulative time by class:

Class	A	B	C	D	E	F	G	H
Total Time			0.24	20.08	12.02	20.49	66.68	

Cross-Over Segment (#99)

Based on the location of truck storage and stockpile sites, a proposal may have trucks that are assigned to work in more than one CMA. In this case, the prospective contractor must show all assignments for that truck in both spreadsheets.

Because the Truck Factor may vary between CMAs, the truck allocation may be different depending on which CMA spreadsheet file it is calculated in. To correct for this, use 'section 99' for the sections that are in the 'other' CMA when entering assignment data. Automatic spreadsheet calculations for assignments using a 'section 99' do not include the truck allocation for that assignment, but do include a calculation of cumulative travel time. The end result will be that the truck allocation in each CMA must be added together manually to get the total truck allocation.

Proposals that have trucks working in more than one CMA are required to duplicate the home shop for the trucks that are crossing over in all CMAs spreadsheets within the proposal.

Material Spreading Analysis

Time to Complete Spreading

The time required to complete sanding/salting will be longer than for plowing, since the truck will have to travel to and from a stockpile site to refill the hopper. The spreadsheet will calculate the length of highway that each truck can sand/salt based on the hopper capacity entered by the prospective contractor. Prospective contractors should refer to specification 52.1.3.4 for minimum hopper sizes, and the special provisions for any exceptions to the minimum sizes.

The specifications allow trucks to be parked at sites that do not have sand/salt stockpiles, just as long as all sections can be treated in the maximum allowable time and the total cumulative times for each class of highway are acceptable. If trucks are not stored at a stockpile site, then the distance to travel from the garage to the stockpile site is added to the travel distance (TD) for the first truck assignment.

Since trucks are assumed to travel the same beat whether plowing or spreading materials, the spreading travel distance between assignments does not need to be entered separately – the spreadsheet will calculate time to complete spreading using the TD entered for plowing.

The only new data requirements for material spreading analysis is the distance from the stockpile (either sand or salt stockpile) to the nearest point in each section (Haul). The Haul distance is based solely on the path traveled from the closest point in section to the stockpile, and completely independent of the route used to travel between assignments used to measure TD.

A contractor cannot use more than one stockpile site per assignment. Any plow trucks that cross CMA boundaries must have the appropriate haul/travel and assigned lengths in both CMA spreadsheets.

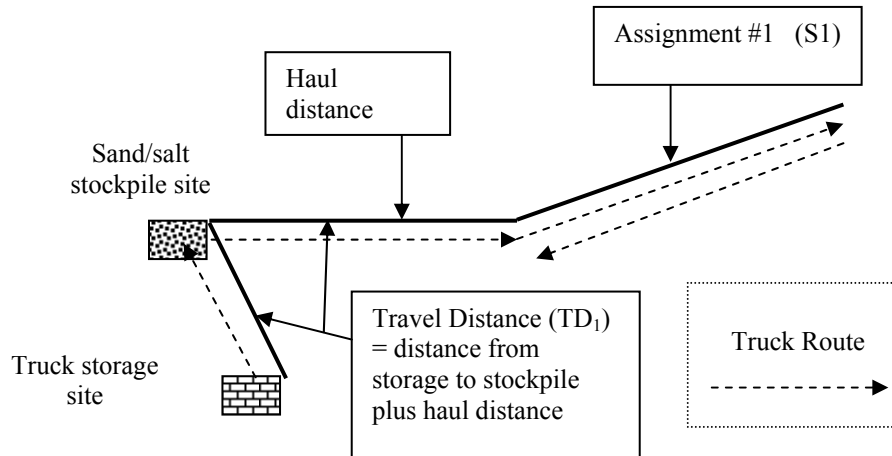
Basic Assumptions:

- Hopper capacity for sanding/salting is entered by the prospective contractor, in m³,
- Sand/Salt usage 0.24 m³/ lanekm of roadway (equivalent to 330 kg/lanekm),
- The spreadsheet calculates the length of highway that can be treated for the quantity of sand or salt carried,
- To account for the various lengths of the sections and the corresponding number of loads required to complete the section, the spreadsheet calculates the time required to sand/salt the length of section assigned, plus haul time according to the distance from the stockpile site,
- Each truck assignment can only take sand or salt from a single stockpile site, and

- Truck speed is an average 46 km/h when sanding/salting, and a deadhead average speed of 80 km/h. The deadheading speed is used at all times when the truck is not spreading sand or salt.

Sand/Salt scenarios:

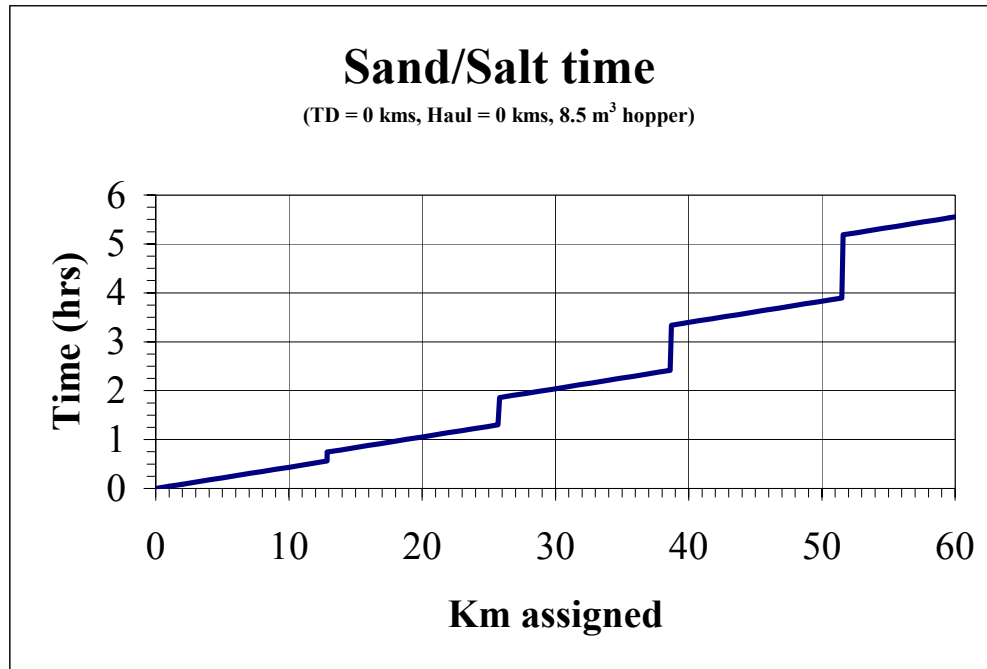
First assignment



Time calculation for the first assignment:

For the first assignment, the time (t_1) to complete is based on the distance from the truck storage site to the sand/salt stockpile plus the “Haul Distance” (Haul), the maximum length of highway that can be treated using the full hopper capacity (MH), and the assigned length in the section (S1). The longer the assigned length, the more trips are needed back to the stockpile to refill the hopper. Deadheading time is calculated in two parts: the time spent deadheading within the section, and the time spent deadheading from the start of the section to the stockpile site.

The graph below shows an example of the time required to treat different assigned section lengths:



This graph shows how, as the time spend deadheading within the section increases, the overall time increases proportionally.

Time Formula for first assignment (names and symbols are Excel functions):

Maximum length of highway that can be treated using the full hopper capacity (MH) is:

$$MH = [\text{Hopper size} / 0.24 \text{ m}^3 \text{ per lane km}] / 2$$

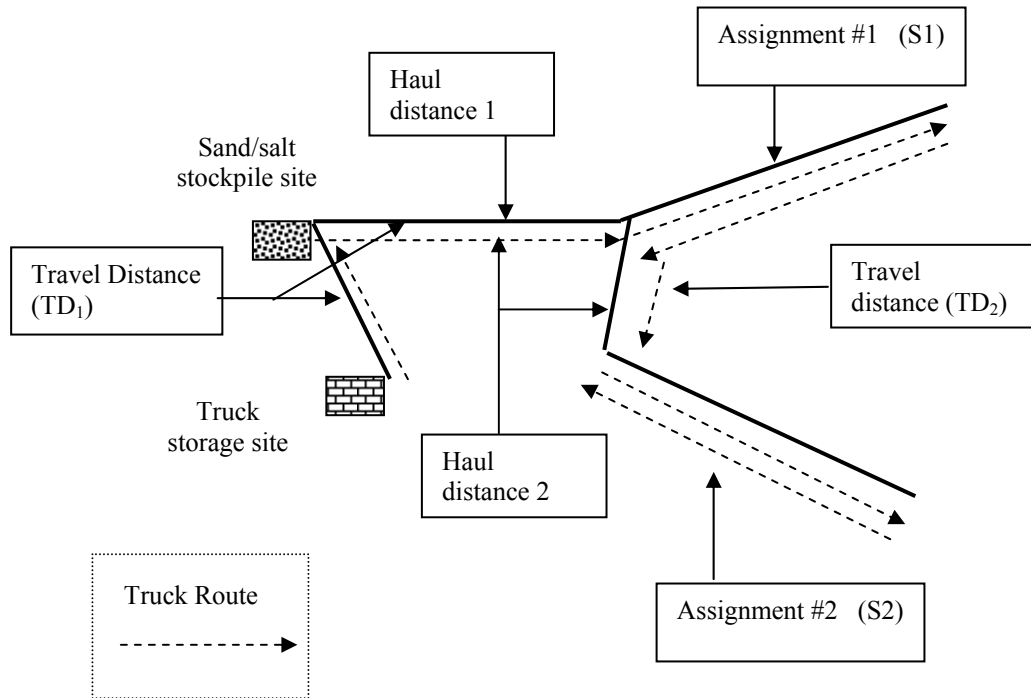
Number of loads to treat the first assignment (NL) is:

$$NL = \text{rounddown}(S1/MH)$$

Time to treat the first section (t_1) in hours is:

$$t_1 = \frac{[Mob + Haul + (NL^2 * MH) + (2 * NL * Haul)]}{deadheads\ speed} + \frac{[2 * AssignedLength]}{spreading\ speed}$$

Second and subsequent assignments



After the first assignment, there may be sand/salt left in the hopper that will be used at the start of the next assignment. The spreadsheet will calculate the quantity of sand/salt remaining in the hopper at the end of each assignment, and that quantity will be used to determine the number of loads needed in the next assignment.

The number of lane kilometers that can be treated with the sand/salt left in the hopper at the end of the previous assignment (LeftoverKm) is:

$$\text{LeftoverKm} = \{(NL_{\text{previous}}) * MD + \text{quantity in hopper at start of previous assignment}\} - \{2 * \text{previous assignment length}\}$$

The next assignment may be short enough that the material left in the hopper is sufficient to do the complete next assignment without reloading the hopper.

The number of loads required for the next assignment (NL_{next}) is:

- If (next assignment length) \leq LeftoverKm, then $NL_{\text{next}} = 0$
- Elseif (next assignment length) \leq LeftoverKm + MH, then $NL_{\text{next}} = 1$
- Elseif $NL_{\text{next}} = 1 + \text{rounddown}(\{\text{next assignment length}\} - \text{LeftoverKm}) / \text{MH}$

Using NL_{next} , the time required to treat a section is calculated as:

Time to treat the first section (t_i) in hours is:

$$t_i = \{TD_i + \text{Haul} + (NL_{\text{next}}^2 * MH) + (2 * NL_{\text{next}} * \text{Haul})\} / \text{deadhaul speed} + (2 * \text{Assigned length}) / \text{sanding speed}$$

These formulae are used in the spreadsheet provided to prospective contractors. The only data that the prospective contractor must enter are the haul distances.

Spread Time worksheet

Like the Plow Time worksheet, the Spread Time worksheet summarizes the times for individual truck assignments. Cumulative times to complete work are also calculated.

A view of the electronic “Spread Time” worksheet follows:

The screenshot shows a Microsoft Excel spreadsheet with the following data:

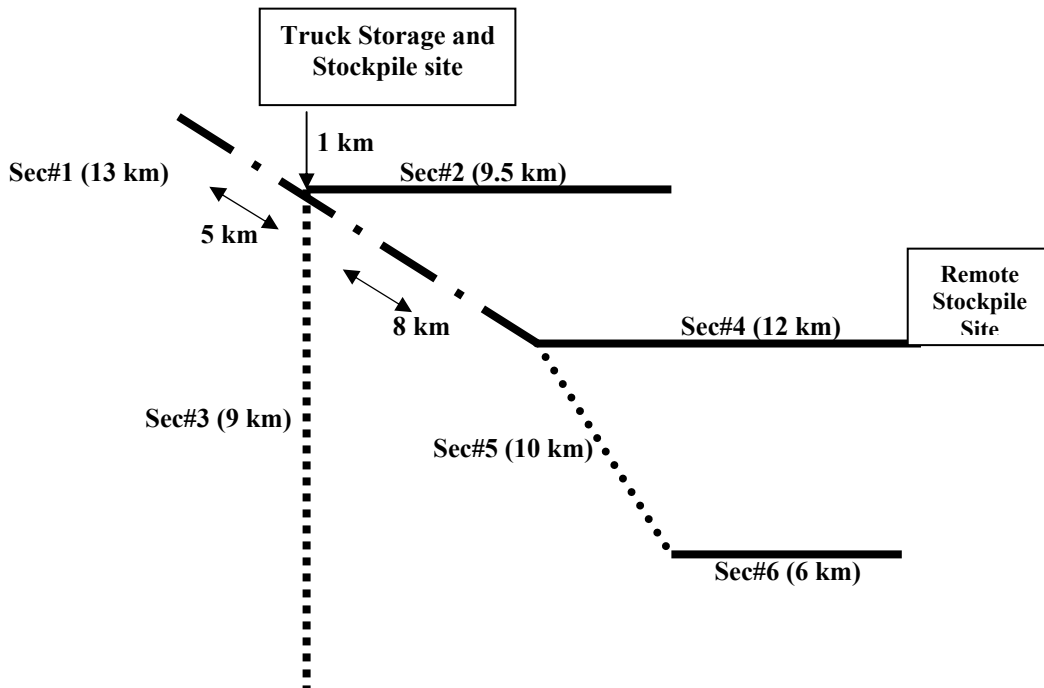
Spread Cumulative time by class									
Class	A	B	C	D	E	F	G	H	
Total Time			0.24	29.19	16.69	25.47	83.84		

Spreading time by section					Athabasca	Athabasca	Athabasca	Athabasca	Athabasca	Athabasca	Athabasca	Athabasca	Athabasca	Athabasca	Athabasca
Section	Road/Hwy	Class	Max Allowed Time (hrs)	Time (hrs)	1	2	3	4	5	6	7	8	9	1	
1	2.36	D	4 OK	1.31											
2	2.38	D	4 OK	2.06											
3	2.40	D	3.5 - Hot Sp	3.27	3.27										
4	2.42	D	3 - Hot Sp	3.16			3.16								
5	2.44	G	10 OK	4.09								0.19			
6	2.46	D	3 - Hot Sp	1.98											
7	2A.44	F	8 OK	2.81											
8	18.06	F	8 OK	5.00											
9	18.08	E	6 OK	2.06											
10	18.10	E	6 OK	0.97											
11	18.10	D	4 OK	3.27											
12	18.12	E	6 OK	2.30											
13	22.32	E	10.5 OK	6.39											
14	33.04	D	4 OK	2.30											
15	33.06	D	4 OK	0.95											
16	33.08 & 33.10	E	6 OK	3.47											
17	44.02	D	4 OK	1.62											
18	44.00	D	4 OK	1.34							1.34				
19	44.02	D	4 OK	2.55											
20	44.04	D	4 OK	3.13											
21	55.10	C	1 - Hot Sp	0.24		0.24									
22	55.10	D	4 OK	2.23		2.23									
23	651.02	F	8 OK	4.46							4.46				

Example of Shop Worksheet Data Requirements

Example of Shop worksheet data requirements

Following is a typical situation that can arise, for one truck. The correct answers are provided later:



Step A): Assign Sections in sequence

The first step to enter required data is to determine the section number for each assignment (given below for this example).

Assignment Number	Section Number
1	4
2	5
3	6
4	1
5	2
6	3

Step B): Calculate the Length of Each Assignment

An equivalent 2 lane kilometre (2LEKm) length is then measured for the assignment and entered in the "Length" column. The computer will calculate and automatically display the accumulated truck allocation as each assignment is entered.

Step C): Describe Each Assignment

A brief description can be entered for each assignment. The plow truck always ends up at the same location that it started; in other words, all assignments are “round trip”.

Step D): Show Travel Distances

The travel distances (TD’s) are then entered for each assignment as described previously.

The following example can be used to practice measuring travel distances (TD’s):

Assignment #1	Assignment #2	Assignment #3	Assignment #4	Assignment #5	Assignment #6
TD1 - _____	TD2 - _____	TD 3 - _____	TD4 - _____	TD5 - _____	TD6 - _____
Length - _____	Length - _____	Length - _____	Length - _____	Length - _____	Length - _____

Step E: Haul distances

The accumulated times to complete the activity of spreading materials is calculated automatically and displayed for each truck assignment.

The accumulated times are automatically displayed in the “SPREAD TIME” worksheet.

The following example can be used to practice measuring haul distances:

Assignment #1	Assignment #2	Assignment #3	Assignment #4	Assignment #5	Assignment #6
Haul - _____	Haul - _____	Haul - _____	Haul - _____	Haul - _____	Haul - _____

The haul distance for each assignment is the distance from the closest point in the assigned section of highway to the stockpile source used for that assignment. Only one stockpile source can be used per assignment.

Answers for Typical Examples for Plowing and Spreading

For Plowing

Assignment #1	Assignment #2	Assignment #3	Assignment #4	Assignment #5	Assignment #6
TD ₁ – 9 km.	TD ₂ – 0 km	TD ₃ – 10 km.	TD ₄ – 10 km.	TD ₅ – 8 km.	TD ₆ – 0
Length – 12 kms.	Length – 10 kms.	Length – 6 kms.	Length – 13 kms.	Length – 9.5 kms.	Length – 9 kms.

For Spreading

Assignment #1	Assignment #2	Assignment #3	Assignment #4	Assignment #5	Assignment #6
Haul – 0 kms.	Haul – 9 kms.	Haul – 19 kms.	Haul – 1 kms.	Haul – 1 kms.	Haul – 1 kms.

Maps

It is most useful to prepare truck beats using a map. Maps can make what appears to be an extremely complicated situation much easier to manage.

A map of how the Department assigned the “base case” level is provided in the tender documents.

Blank maps for the Contractor to fill out are available.

The RFP requires a map of the proposed truck beats. The only restriction on this map is that it clearly shows the truck allocations in order. Maps can be drawn by computer or coloured by hand. If done by hand, the use of “highlighter pens” is recommended.

Hotspots

- These are areas where the Operations Manager will want to designate special (reduced) times for delivery of services.
- A hotspot is defined as a section where the actual or base time is specified instead of the “default” time for that class of highway.
- Hotspots are very restrictive to Prospective Contractors and do not permit “room to move”. Therefore they are used judiciously.
- Typically hotspots will be major hills (usually in river valleys) and urban areas.

Trouble Spots

Trouble spots are identified in the local features of the RFP for each individual CMA. They identify problems in the area that normally require special or additional attention, during winter storms.

They differ from hot spots, as they do not require faster response times within the Special Provisions for that CMA.

The Prospective Contractor must identify in his proposal's section on the snow and ice control plan how he intends to deal with both hotspots and troublespots.

Contract Specifications for Winter Service Delivery Plan

The Special Provision will identify some requirements to protect the minimum level of service for Winter Service Delivery, in the following areas:

Plowing Delivery Requirements

Prospective contractors have the opportunity to select locations for sand/salt stockpiles and the truck storage. In planning and selecting their sites, it is very important that their allocation of resources (sand/salt stockpiles and trucks) be placed strategically to ensure that the proposed service is equal to or slightly better than the established base case levels. Proposals will be evaluated on the winter service delivery cumulative times calculated in the spreadsheets described previously.

Requirements for "WINTER SERVICE DELIVERY" are specified in the RFP and all proposals will be evaluated based on meeting or exceeding the Base case "WINTER SERVICE DELIVERY" criteria.

For this reason, times of delivery of service in the worksheets are compared to the existing base case delivery of service to ensure overall service to Alberta's motorists is maintained.

Level of Service for all Class A, B & C Highways are considered critical and will therefore have more critical assigned **Truck Allocation** parameters.

The Prospective Contractor may have the situation that the minimum truck factor calculation does not accommodate, in sufficient numbers, enough trucks to meet the technical requirements in the RFP for Winter Service Delivery – Plowing. In those cases, additional trucks must be added to the proposal to ensure all requirements are met.

The Department has established overall “Business Rules” that governs the determination of Winter Service Delivery requirements. This will ensure that overall practices within the province are consistent.

Sanding/Salting Delivery Requirements

The “Spread Time” worksheet is similar to “Plow Time” worksheet in format but summarize times to deliver sand or salt.

The “Special Provisions” contain a worksheet that specifies the maximum allowable completion times for both plowing and sand application, for all individual highway sections, within that CMA.

The Prospective Contractor may have the situation that the minimum truck factor calculation does not accommodate, in sufficient numbers, enough trucks to meet the technical requirements in the RFP for Winter Service Delivery – Spreading. In those cases, additional trucks or additional supply sites or a redistribution of supply sites must be added to the proposal to ensure all requirements are met.

Truck Allocation Requirements

The ‘Base Case’ plow truck allocation has been modeled on existing truck storage and sand/salt stockpile locations. Prospective contractors will be able to modify the existing locations for both truck storage and sand/salt stockpiles. When the proposed distribution of trucks and stockpiles increases the efficiency of the prospective contractor’s fleet, fewer trucks could be required to provide the same level of service. To account for this increase in efficiency, the maximum number of 2LEKm of highway that each truck can be assigned to is increased slightly as the total number of trucks decreases.

Truck Factors will be specified in the RFP for Classes and Groups of Classes. To permit a rational distribution of beat length over a variety of truck fleets, the following worksheet will be included in all “Special Provisions”.

An example of this worksheet is shown below:

Truck Allocation Assignment Worksheet – CMA 28			
Truck Factor			
Class	Base 19 or more Trucks	Proposed 17 Trucks Minimum	Proposed 18 Trucks
A	25	25	25
B	28	35	30
C	N/A	N/A	N/A
D	38	45	42
E	45	60	47
F	85	105	90
G	190	110	100
H	N/A	N/A	N/A

Each Special Provision section shall show an “Assignment Worksheet” for the full range, from the minimum number to the “Base case” number of trucks assigned for the CMA.

Depending on where the prospective contractor locates his sand/salt stockpiles, the proposed truck demand factor may indicate that the proposed fleet has more trucks than the “Base case” number. In that case, the proposed contractor will be allowed to choose a 2LEK assigned per truck between 25 2LEKms and the “Base case” truck allocation, per Class, for that CMA.

Following is a view of the “Assignment Worksheet”, in electronic format:

	C	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
1		Truck Factor for this CMA		Number of Trucks											
2	Class		20 (Base)	17 (Min #)	18	19									
3	A						A								
4	B						B								
5	C		37	40	38	37	C								
6	D		38	45	40	39	D								
7	E		51	60	55	53	E								
8	F		90	105	100	95	F								
9	G		95	110	105	100	G								
10	H						H								
11															
12															
13															
23															
24															
25															
26															
27															
28															
29															
30															
31															
32															
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															
43															

The Prospective Contractor is required to fill in the Truck Factor area with the Truck Factor according to the minimum number of trucks calculated from the Proposed Truck Demand Factor.

Truck Allocation

The Department permits a small degree of over - utilization, particularly in the lower classes of roadway. This allows proposals to over-allocate additional highway sections that would otherwise require an additional truck. The basic guidelines for truck allocation are:

- Prospective contractors should attempt to have an average truck allocation of 1.0 (100%) per truck for their proposal.
- Trucks should be assigned until truck allocation is greater than 0.8. Only in rare cases will a truck that has a truck allocation less than 0.8 be unable to travel to another area for further allocations within the maximum allowable time.
- Trucks are considered appropriately allocated with a truck allocation of 0.9 and higher.
- Allowable over-utilization depends on the highest class of highway that the truck works on, in any of its assignments. This has changed from previous proposal evaluations, where the over-utilization depended on the class of highway that the truck was working on when it became over-utilized.

- If the prospective contractor wants to propose an over-utilization of trucks within an area, he shall clearly identify this within his Winter Service Delivery plan in Envelope No. 2, and explain his justification for the over-utilization.

Shown below are typical worksheets that may appear in “Special Provisions”

Maximum truck allocation by Roadway Class		
Class	Permissible percentage of fleet with truck allocation > 1.0, by CMA	Maximum truck allocation allowed
A	1 truck or 10%, whichever is less	1.05
B	1 truck or 10%, whichever is less	1.10
C	2 trucks or 20%, whichever is less	1.10
D, E, F, G or H	3 trucks or 30%, whichever is less	1.15

Cumulative Network LOS Time Requirements

The “Special Provision” section of the RFP will have requirements for the total time to complete either plowing or spreading for individual classes, or groups of classes for the entire network. The time to complete any individual section for cumulative LOS will be the running time of the last truck to finish working in that section.

The Prospective Contractor must meet all the cumulative time requirements, by groups of classes of highway. The Base Case’s Cumulative Network time is found in the “Base Case” file, for plowing or spreading.

The Prospective Contractor may have the situation that the minimum number of trucks, as calculated by the truck demand factor equation on page 7, does not provide sufficient numbers of trucks to meet the requirements for Cumulative Network LOS Time Requirements. In those cases, additional trucks must be provided.

Depending on the number of CMAs in a proposal, different groups of Classes of Highway are used to evaluate the proposal. The cumulative network LOS time for each class is added to make the group time, and the proposal must have a group time less than or equal to the Base Case, for that group of classes of highway. Shown below is a typical example of a Network Cumulative LOS Time worksheet that may appear in a “Special Provision”:

Permissible Cumulative Network Class Time, in Multiple CMAs'	
No: of CMAs in Proposal	Permissible Cumulative Times
1	Combine Classes A, B & C Combine Classes D & E Combine Classes F, G & H
2	Combine Classes A, B & C Combine Classes D & E Class F Combine Classes G & H
3 or more	Combine Classes A, B & C Class D Class E Class F Combine Classes G & H

The Prospective Contractor, in his Winter Service Delivery plan shall add the class times within the individual groupings identified in the “Special Provisions” for all the CMAs, within the proposal. This applies to both plowing and spreading times.

The Department has established overall “Business Rules” that governs the determination of Winter Service Delivery requirements. This will ensure that overall practices within the province are consistent, in all CMAs.

- Cumulative network LOS times for the proposal must be equal to or less than the base case, for both plowing and spreading
- In unusual cases, the best allocation of plow trucks may result in a proposed delivery time being greater than the maximum allowable on some sections of highway. For individual sections, the proposed delivery time may be exceeded to a maximum of 10% above the allowable maximum time for that section, in no more than two sections in each CMA.
- In unusual cases, the best allocation of sand/salt stockpiles may result in proposed delivery times being greater than the maximum allocable. For individual sections, the proposed spreading time may be exceeded to a maximum of 10% above the allowable maximum time for that section in no more than 10% of the sections in each CMA.
- In all cases, the cumulative network LOS times must not exceed the Base Case.

Prospective Contractor's Procedure for Winter Service Delivery Plan

The prospective contractor should follow this sequence to determine the number and placement of plow trucks that meet department requirements:

1. Select stockpile locations and truck storage sites for the proposal.
2. Enter distances from the nearest stockpile location for each section, in the "Truck Demand" worksheet.
3. Calculate the preliminary minimum number of trucks required using the truck demand factor calculation (see page 7).
4. Enter the Truck Factor for the preliminary minimum number of trucks calculated, in the "Assignment" worksheet.
5. Enter truck information (including hopper size) on the appropriate "Shop" worksheets, and assign trucks to plow all sections.
6. Check the "Plow Time" and "Shop" or "Truck Alloc" worksheets to ensure that:
 - (a) all sections have been completely assigned,
 - (b) all sections are completed within the maximum time allowed, and
 - (c) all trucks are within maximum allowable truck allocation.
7. Check the "Spread Time" worksheet to ensure that all sections are completed within the maximum time allowed.
8. Make changes as required to the stockpile locations and truck storage sites and plow assignments until all sections are completed within the maximum allowable time for plowing and spreading, and all trucks are within maximum allowable Truck Allocation.
9. Check on the "Plow Time" and "Spread Time" worksheets that the cumulative plowing and spreading times by class of highway, grouped as described earlier, are less than or equal to the grouped cumulative times by class of highway in the Special Provisions.
10. Make changes as required until the proposed cumulative times by groups of classes of highway are less than or equal to the base case.
11. Draw plow beat maps for inclusion in the proposal.

Assessment of Winter Service Delivery Plan

The following points should be considered by the Prospective Contractor when preparing his winter highway maintenance service plan.

- The winter service delivery model in the proposal must meet all requirements of the special provisions.
- The assessment panel for “Envelope No: 2” will be given the job to review the Contractor’s proposal for Winter Service Delivery.
- The assessment panel may decide that a proposal does not meet the requirements through innocent mistakes, and make minor adjustments to truck assignments or distances entered in any proposals. The intent of these changes would be to show that the proposal, with minor modifications, can meet the contract requirements. These slightly modified proposals will be accepted for further evaluation. Proposals that contain major errors in content or process for the development of the winter service delivery model may be rejected.
- In all cases, the “Spirit and Intent” of the specification must be met in the proposal.
- For contracts tendered starting in 2004, there is a new requirement in the special provisions that deals with providing full-time additional operators (more than one operator per truck) in some shops. The minimum number of required additional operators is described in the Special Provisions, as calculated for the Base Case. The spreadsheet will automatically calculate how many additional operators are needed for each shop area and CMA according to the proposal’s shop locations. The prospective contractor does not have to do any additional data entry.

Spirit & Intent of Winter Service Delivery

Wholesale reduction or trading of service between areas or classes or groups of classes will not be considered as meeting the spirit and intent of the winter service delivery plan.

Not meeting the “spirit or intent” of the winter service delivery requirements may result in the rejection of a proposal.

***MOTOR GRADER SERVICE
DELIVERY DETAILS
FOR GRAVEL SURFACES***

January 2005

MOTOR GRADERS FOR GRAVEL SURFACE ROADWAYS

The Special Provisions will include a table (and the RFP, a map) of each CMA showing the location of all gravel roads to be maintained. The table will provide information on gravel surface sections as follows:

- weighted average annual daily traffic (WAADT)
- kilometres (from and to)
- number of 10,000 square metres (hectares)

The Prospective Contractor shall provide a plan for provision of motor grader services on all identified gravel roadways. Specific information required is:

- Identification of motor grader circuits, each of which is to have one assigned motor grader. A circuit is a combination of gravel roadway sections that are normally done consecutively. This means grouping of the sections to minimize the travel between sections. The circuits need to meet the following criteria:

Maximum Utilization:

WAADT	Maximum No. of Hectares per Grader
<100	120
100 to 500	80
>500	60

The Prospective Contractor's plan shall show the number of hectares per WAADT classification assigned to each motor grader in a table similar to the following:

WAADT	# of Hectares in Circuit	Equivalent Motor Graders (#Hectares / Max. #Hectares)
<100		
100 to 500		
>500		
Total		Not to exceed 1.0

The "equivalent motor grader" is a calculation showing the motor grader utilization for a particular classification of road in the circuit. It is equal to the number of hectares in the classification divided by the maximum allowed for that classification. The Prospective Contractor's table will demonstrate that the motor grader circuit meets the maximum utilization criteria.

Maximum Time to Complete:

WAADT	Maximum Time to Complete (hrs)
<100	24
100 to 500	18
>500	12

The Prospective Contractor's plan shall show for each section in a circuit that the section can be completed within the maximum time allowed for its classification. This will be determined by a calculation using a motor grader deadheading speed of 40 kilometres per hour and a working speed of 10 kilometres per hour. The starting point will be the motor grader storage location. All gravel sections will require two passes, meaning that the motor grader may have to backtrack over the completed section (at 40 kilometres per hour), depending on the location of the subsequent section to be bladed. The Prospective Contractor's plan shall show this calculation for each section in the circuit, with the "time to complete" accumulating from the previous section.

- Motor grader storage locations by land parcel and the associated deadhaul to the nearest point on the assigned circuit and the travel distance to the nearest point on the highest WAADT classification section in its circuit.
- The length of deadhaul between individual sections of each circuit.
- Proximity of the operator to the grader storage location.

The Proposal will be assessed for the strategic placement of motor graders to determine if the Prospective Contractor's plan is acceptable and economic for the Department.

Minimum Requirements

- Number of motor graders complies with the maximum utilization per grader.
- Each proposed circuit shall be completed within the maximum "time to complete".
- Identify suitable back-up plans for motor grader breakdowns and operator unavailability.
- Identify specific arrangements for supplemental resources in emergency situations, such as reciprocal agreements, or other types of equipment (i.e. farm tractors, loaders, etc.).
- Identify subcontractor arrangements and how Department work will be prioritized.

TABLE OF CONTENTS

A.	AWARDING HIGHWAY MAINTENANCE CONTRACTS	1
B.	STANDARD SPECIFICATIONS	2
C.	SCOPE OF WORK	3
D.	APPLICATION OF PRICE ADJUSTMENT FACTOR.....	9
E.	PAYMENT FOR PURCHASED MATERIAL AS EXTRA WORK.....	9
F.	CHANGE IN SHOP LOCATIONS DURING THE TERM OF THE CONTRACT	9
G.	PROVISION OF MATERIALS.....	10
H.	HIGHWAY MAINTENANCE WORK.....	10
I.	MINIMUM NUMBER OF FOREMEN.....	19
J.	WINTER READINESS	19
K.	SNOW REMOVAL AND ICE CONTROL.....	19
L.	TEMPORARY SNOW FENCE.....	22
M.	AUTOMATED VEHICLE LOCATION SYSTEM FOR SNOWPLOW TRUCKS.....	23
N.	PRE-WETTING SYSTEMS.....	24
O.	MOTOR GRADER REQUIREMENTS	24
P.	PROVISIONS FOR SALT STORAGE (BASE SALT STORAGE QUANTITY)	25
Q.	WINTER SANDING MATERIALS	27
R.	STORAGE OF TREATED SAND	28
S.	CHIPS FOR SNOW AND ICE CONTROL ON GRAVEL ROADS.....	29
T.	WINTER SERVICE DELIVERY (WSD) SECTIONS AND CLASS.....	30
U.	WINTER SERVICE DELIVER (WSD) PLAN - BASE CASE.....	32
V.	WSD SNOWPLOWING - TIME TO COMPLETE REQUIREMENTS	32
W.	SAND/SALT APPLICATION - WSD TIME REQUIREMENTS	33
X.	SNOWPLOW TRUCK ALLOCATION REQUIREMENTS.....	35
Y.	CUMULATIVE NETWORK TIME REQUIREMENTS.....	36
Z.	CO-ORDINATION WITH THE PREVIOUS MAINTENANCE CONTRACT	37
AA.	ANNUAL HIGHWAY CLEAN-UP.....	37
BB.	MOWING AND TRIMMING	37
CC.	BRUSH CUTTING.....	38
DD.	ADMINISTRATION OF HAY AND NO SPRAY PERMITS	38
EE.	PAYMENT OF LIGNOSULPHONATE SOLUTION	39
FF.	EMERGENCY SIGN PACKAGE.....	39
GG.	TOLL FREE NUMBER – SIGNAGE AND LOGGING OF CALLS.....	39
HH.	MATERIAL CONVERSION FACTOR.....	40
II.	LOCATIONS AND TELEPHONE NUMBERS OF CONTACT PERSONNEL.....	40
JJ.	ROAD BANS.....	40
KK.	SEEDING OF DISTURBED AREAS	41
LL.	INLAID DURABLE THERMOPLASTIC MARKINGS.....	41
MM.	REMOVAL OF SURFACE APPLIED MARKINGS.....	41
NN.	ENVIRONMENTAL MANAGEMENT OF MAINTENANCE FACILITIES	41
OO.	CONTRACTOR PERFORMANCE RATING SYSTEM.....	44
PP.	QUALITY ASSURANCE PROGRAMS	44
QQ.	MIKE RADIO SYSTEM	44
RR.	INTRODUCING NEW TECHNOLOGIES AND PROCESSES	46
SS.	MAINTENANCE CONTRACT MANAGEMENT SYSTEM.....	47

TT. GENERAL LIABILITY INSURANCE PREMIUM 47
UU. FROST PROBE DRAWING 49

A. AWARDING HIGHWAY MAINTENANCE CONTRACTS

At this time, the Department is requesting the submission of Proposals for the performance of highway maintenance in Contract Maintenance Areas 27, 28, & 30.

This Special Provision is intended to supplement and provide clarification of the clauses in the Request for Proposals pertaining to the process that will be used by the Department to identify the Preferred Proposal(s). The term “Preferred Proposal” is referenced in Section 3.0 of this Request for Proposal Details.

Notwithstanding the following steps, the Department reserves the right to reject any or all proposals, and to not award any Contracts under this Request for Proposals.

Step 1 – Identifying the Proposal or Combination of Proposals covering all 3 CMAs and having the Highest Score

Pursuant to section 3.0 of the Request for Proposals Details document, the Department will identify the Proposal covering all 3 CMAs or the combination of Proposals covering all 3 CMAs, as the case may be, which meets all minimum requirements for Envelope 2 and has the highest score. For the purposes of this Special Provision only, such Proposal(s) is deemed as the “HIGHEST SCORE PROPOSAL(S)”.

If in the opinion of the Department, the “HIGHEST SCORE PROPOSAL(S)” provides good value to the Department, or if the number of acceptable proposals received by the Department covering all 3 CMAs or combination of proposals covering all 3 CMAs is three or more, then the evaluation process will continue pursuant to Section 3.3.6 Financial Analysis, of the Request for Proposals Details document.

If the Department receives less than three proposals or combination of proposals covering all 3 CMAs, then good value is defined as a proposal(s) covering all 3 CMAs which is no higher than 5% above the Department's estimated yearly cost for all 3 CMAs.

Step 2 – Assessing Proposals where the HIGHEST SCORE PROPOSAL does not provide Good Value to the Department, and if there are less than three proposals or combination of proposals covering all 3 CMAs

STEP 2 will only be used if the “HIGHEST SCORE PROPOSAL(S)” (as determined in STEP 1) is judged by the Department as not providing good value and the number of proposals covering all 3 CMAs or combination of proposals covering all 3 CMAs is less than three.

If in the opinion of the Department, the “HIGHEST SCORE PROPOSAL(S)” does not provide good value to the Department it will not be considered to be the Preferred Proposal(s). In such case the Department will then consider all individual Proposals that do not contain all 3 CMAs. This includes any Proposals that are part of a combination of Proposals covering all 3 CMAs.

The Department will then proceed with the evaluation process as follows:

- (a) select the Proposal or combination of Proposals which covers the greatest number of CMAs, and also provides good value to the Department. In the case of Proposals or combination of Proposals that cover the same number of CMAs, the Proposal or combination of Proposals which meet all minimum requirements of Envelope 2 and has the highest cumulative score will be selected.

The scores of each individual CMA in the selected Proposal(s) will be compared to the scores of the corresponding CMAs of the “HIGHEST SCORE PROPOSAL(S)” and the following shall apply:

- (i) If the selected Proposal covers only 1 CMA, the score of that CMA must be at least 2% greater than the score of the corresponding CMA from the “HIGHEST SCORE PROPOSAL(S)”, before it will be considered to be a Preferred Proposal.
- (ii) If the selected Proposal covers 2 CMAs, the cumulative score of the 2 CMAs must be at least 1% greater than the cumulative score of the corresponding CMAs of the “HIGHEST SCORE PROPOSAL(S)”, before it will be considered to be a Preferred Proposal.
- (iii) If the selected Proposal covers 3 CMAs, the cumulative score of the 3 CMAs must be at least 0.5% greater than the cumulative score of the corresponding CMAs of the “HIGHEST SCORE PROPOSAL(S)”, before it will be considered to be a Preferred Proposal.
- (iv) These requirements for “increased scores” in items (i), (ii) and (iii) above do not apply in cases where the selected Proposal was originally a component of the “HIGHEST SCORE PROPOSAL(S)”. In such cases, the selected Proposal will be judged on a best value basis.
- (v) In the event the Department awards contracts to bidders with Preferred Proposals selected through this STEP 2, this will result in 1 or more than 1 CMA not being covered by a contract. In such case, the Department may enter into negotiations with the bidder having the “HIGHEST SCORE PROPOSAL” (as determined in STEP 1) for the performance of the Work in the affected CMA(s). In the event such negotiations are not resolved to the satisfaction of both parties, the Department reserves the right to explore other avenues for awarding the highway maintenance in the affected CMAs, including re-tendering.

Step 3 – No Preferred Proposals Identified

If Step 2 does not result in any Preferred Proposals, the Department reserves the right to award no contracts whatsoever, through this RFP process.

B. STANDARD SPECIFICATIONS

The Specifications for this Contract are published in the Department manual entitled “Highway Maintenance Specifications”, Edition 4, January 2005.

The typical plans and drawings for this Contract are published in the following documents:

- All drawings for traffic accommodation and work zone temporary signing are found in the Department manual entitled “Traffic Accommodation in Work Zones”, 2nd Edition, May 2001 and “Traffic Accommodation in Urban Work Zones”, 1st Edition, May 2003.
- Standard drawings showing requirements for pavement markings are found in the latest version of the Department manual entitled “Alberta Highway Pavement Marking Guide”.
- Typical drawings for permanent highway signage are included in the Department manual entitled “Typical Signage Drawings”.
- Typical drawings for barriers are included in the Department manual entitled “Typical Barrier Drawings”.
- Most other drawings referenced in the Highway Maintenance Specifications manual are found in the Department manual entitled “CB6 Standard Highway Construction Drawings”.

Any drawings not found in these manuals, or any updated drawings, are included in the individual specifications or included in the Contract.

Due to government reorganization, the Department’s name has changed over the years. As a result, some specifications, drawings, plans and other documents may continue to reference Alberta Transportation, Alberta Infrastructure or Alberta Transportation and Utilities. Please be advised that any references to Alberta Transportation, Alberta Infrastructure or Alberta Transportation and Utilities shall mean Alberta Infrastructure and Transportation.

C. SCOPE OF WORK

The work within this CMA will commence at 12:01 A.M. on **August 1, 2006** and terminate at 12:00 P.M. (midnight) on **July 31, 2011**.

The Work consists of performing all required routine and specific maintenance of the designated highway infrastructure within the boundaries as shown on the Contract Plan.

Provincial highways and roads included in the designated infrastructure are as follows:

PAVED HIGHWAYS

Hwy. No.	Description	Kilometre		Length (km)	2 Lane Equiv.	WAADT
		From	To			
2:10	Jct. 533:02 to High River Overpass	22.45	50.17	27.72	55.44	7865
2:12	High River Overpass to Dewinton Interchange	0.00	28.68	28.68	69.86	16950
2:15	Dewinton Interchange (552:02) to Jct. 2A:08	0.00	2.16	2.16	7.02	35500
2A:04	Jct. 23:08 to Jct. 7:08 and 2A:04	0.00	15.90	15.90	17.71	10940
2A:06	338 th Ave. to Dewinton Interchange [552:02]	0.00	5.98	5.98	11.93	15800
2A:08	Jct. 2:15 to 194th Ave (Calgary)	0.00	8.36	8.36	23.53	25500
7:08	Jct. 22:12 to Jct. 2:12	0.00	26.15	26.15	26.15	4550
8:06	Jct. 22:14 to C.C.L. [West]	0.00	16.55	16.55	16.55	15500
22:08	Jct. 520 to Jct. 533	20.18	47.15	26.97	26.94	1700
22:10	Jct. 533 to Coal Trail [Longview]	0.00	38.48	38.48	38.48	1750
22:12	Coal Trail to Jct. 22X:02 and 22:14	0.00	49.38	49.38	52.39	3500
22:14	Jct. 22X:02 and 22:12 to Hwy. 1 Overpass	0.00	40.71	40.71	40.71	6500
22X:02	Jct. 22:12 and 14 to C.C.L.	0.00	6.48	6.48	12.96	11000
23:08	Jct. 23 and 24 to Jct 2A:04	0.00	44.52	44.52	45.68	7140
66:02	Powderface Trail to 66:04	0.00	12.22	12.22	12.22	2250
66:04	66:02 to Jct. 22:14	0.00	15.34	15.34	15.34	2250
533:02	Jct. 22:08 to Jct. 2:10 [Nanton]	0.00	37.60	37.60	37.60	1350
533:04	Jct. 2:10 [Nanton] to Jct. 804	0.00	19.33	19.33	19.33	2330
540:02	Jct. 22:12 east to 64 th Street	0.00	13.62	13.62	13.62	228
541:02	Jct. 40:10 to Jct. 22:12	0.00	43.24	43.24	43.24	420
543:02	Jct. 22:12 to Jct. 2A:04	0.00	24.79	24.79	24.79	2000
546:02	I.D. 5 Boundary to Jct. 22:12	0.00	15.17	15.17	15.17	1460
547:02	Jct. 2:12 to Jct. 24:02	0.00	34.95	34.95	34.95	1200
549:02	Quirk Creek Gas Plant to Jct. 22:12	2.12	17.09	14.97	16.02	1050
549:04	Jct. 22:12 to Jct. 2A:06 [Okotoks]	0.00	25.72	25.72	25.72	2560
552:01	Jct. 549:04 to Jct. 2A:08	0.00	12.83	12.83	12.83	1870
552:02	Int. #90 to Jct. 799:02	0.00	26.47	26.47	26.47	400
758:02	Jct. 66:04 to Jct. 22:14 [Bragg Creek]	0.00	4.73	4.73	4.73	1970
762:02	Jct. 549:02 to Jct. 22:14	0.00	22.24	22.24	22.24	990
783:02	Jct. 543:02 to Jct. 7:08	0.00	11.30	11.30	11.30	1500
799:02	Jct. 23:08 to Jct. 552:02	0.00	22.69	22.69	22.69	550
804:02	Jct. 533:04 to Jct. 23:08	0.00	24.13	24.13	24.13	400
Int. # 8A	Jct. 23:08 and 2:10 and 2:12			2.22	2.22	N/A
Int. # 90	Jct. 2:12 @ 2:15, 2A:06 and 552:02			2.40	2.40	N/A
TOTALS:				724.00	832.34	

There is also an Overpass designed for the Junction of 7:08, 2:12, and 547:02 which is scheduled for completion by 2007.

GRAVEL HIGHWAYS

Hwy. No.	Description	Kilometre		Length (km)	Width (m)	Hectares	WAADT
		From	To				
532:02	Jct. FTR to Jct. 22:10	0.00	25.94	25.94	8.00	20.75	180
549:02	I.D. 5 boundary to Quirk Creek Gas Plant	0.00	2.12	2.12	12.00	2.54	250
797:02	Jct. 552:02 to S. of Bow River	0.00	2.93	2.93	7.00	2.05	100
Forestry Trunk Road (FTR)	Jct. 532 to Jct. 541	81.10	113.10	32.00	7.50	24.00	420
TOTALS:				62.99		49.35	

OILED HIGHWAYS

Hwy. No.	Description	Kilometre		Length (km)	2 Lane Equiv.	WAADT
		From	To			
540:02	64th Street to Jct 2:10	13.62	32.44	18.82	18.92	230
546:02	Blue Rock to I.D. 5 Boundary	0.00	23.20	23.20	23.20	1,460
773:02	Jct. 549:04 to Jct. 22X:02 [S. C. C. L.]	0.00	17.37	17.37	17.79	1,040
TOTALS:				59.39	59.91	

OTHER ROADS

The following areas are roads and parking areas that are located within the I.D. 5 boundaries and are a component of the maintenance work for the area. Some are closed from December 1 to various opening dates. Closing and opening of these gates will be done under Highway Maintenance Work. There are closure gates on 66:02 at Elbow River Day Use, at Mclean Creek road entrance off of 66:04, at Fischer Creek Day Use, at the north end of Gorge Creek Trail west of Quirk Creek Gas Plant [549], at Sandy McNabb campground entrance west of Turner Valley on 546, at Cataract Creek Day Use on FTR south of Highwood House, and at Flat Top Mountain road on FTR north of 532.

Hwy. No.	Description	Length (km)	Opening Date
Canyon Creek	Jct. 66:02 to Closure Gate	0.50	N/A
Gorge Creek Trail	Jct.546:02 (Sandy McNabb) to North Fork Trail	23.00	May 15 8am
McLean Creek Trail	Jct. 549 to McLean Crk. Acc. Gate	17.00	April 30 8am
Moose Mountain	Jct. 66:04 to Summit	8.00	May 15 8am
Northfork Trail	Jct. 549:02 to Jct. McLean Crk. Trail	7.95	N/A
Powderface Trail	Jct. 66:02 to Summit	18.40	May 15 8am
West Bragg Creek	Campground to I.D. Boundry	2.00	N/A
TOTALS:		76.85	

PARK ROADS AND PARKING LOTS

The parks below, owned by Alberta Community Development, contain roads and parking areas for which Alberta Infrastructure and Transportation is responsible for maintenance.

Park	General Location	Gravel (km)	Oiled (km)	Paved (km)	Parking Lot - Gravel (m2)	Parking Lot - Paved (m2)
Alder Trailhead	758:02	0.02			658	
Allen Bill Pond	66:04			0.41		2,336
Anounymous Parking	Sheep River Tr.					1,725
Beaver Flats	66:02	0.97			154	
Beaverlodge	66:02	0.10				
Big Horn	Sheep River Tr.			0.25		1,500
Blue Rock	Sheep River Tr.	0.70		1.43	3,960	
Bragg Creek Adm. Bldg.	66:04	0.20		1.48		23,325
Bragg Creek Prov. Park	758:02	0.54			3,920	
Brown Lowrey	762:02	0.01			700	
Cataract Creek	FTR	2.00			3,500	
Cobble Flats	66:02	1.85		0.50		1,190

Park	General Location	Gravel (km)	Oiled (km)	Paved (km)	Parking Lot - Gravel (m2)	Parking Lot - Paved (m2)
Elbow Valley Info Centre	66:04			0.48		616
Elbow Falls	66:02			0.12		5,760
Elbow River Launch	66:02			1.00		1,500
Enviromental Station	Sheep River Tr.			0.25		5,000
Etherington Campground	FTR	2.00			250	
Etherington Equestrian	FTR	4.00			8,000	
Eyrie Gap	541:02			0.55		8,000
Fisher Creek	North Fork Trail	0.20			7,500	
For-Get-Me-Not-Pond	66:02			0.33		819
Gooseberry Campground	66:04	1.25		0.02	1,285	
Gorge Creek	Gorge Creek Tr.				3,850	
Greenford Campground	541:02			0.48		2,500
Highwood	541:02			1.25		7,500
Highwood House	FTR			1.25		7,500
Indian Graves	532:02	3.75			7,500	
Indian Oils	Sheep River Tr.			0.30	1,324	3,750
Ings Mine	66:02	0.02		0.77	1,875	
Initial Attack	Sheep River Tr.			0.05		2,250
Junction Creek	Sheep River Tr.			2.10	3,850	
Little Elbow	66:02	3.54		1.50	6,176	
McLean Creek	66:04	7.13		1.75	6,705	6,234
Messa Butte	North Fork Trail	0.64			4,500	
Missing Link	Sheep River Tr.	0.15			2,100	
Moose Mountain Trailhead	66:04			0.10		
North Fork Camp Grds	North Fork Trail	0.65			2,500	
Paddy's Flat	66:04	3.37			4,240	
Powderface Trailhead	66:02			0.03		1,210
River Cove	66:04	1.26		0.04	1,300	
Sandy McNabb	Sheep River Tr.	9.65		2.95	11,750	37,000
Sheep Administration	Sheep River Tr.	5.75		0.45	1,150	2,250
Sheep Falls	Sheep River Tr.			0.15		1,224
Sentinel	541:			1.00		9,870
Station Flats	66:04			0.53		344
Volcano Ridge	Gorge Creek Tr.	0.18			3,500	
Ware Creek	Gorge Creek Tr.			0.05	3,500	
West Bragg Creek	22:14	1.30			5,343	
TOTALS:		51.22		21.56	101,090	133,403

Work identification is completed by Alberta Community Development staff and work requests are then forwarded to Alberta Infrastructure and Transportation for execution by the highway maintenance contractor.

Typically, the Work shall be completed using applicable bid items for the given classification of Work. Work not covered by bid items shall be paid for as Extra Work.

The Contractor shall maintain all vehicular roads that are wide enough for two lane traffic, roads within campgrounds that are wide enough for motor graders, and the main parking areas within provincial parks and recreational areas. Any concerns related to the Contractor’s ability to maintain the park roads such as obstacles (power lines, trees or fences) will be discussed and inspected jointly prior to undertaking maintenance. The Contractor shall look after the surface maintenance of the park roads from shoulder to shoulder plus drainage culverts. Snow removal shall be undertaken where required for parks operations as determined by the Engineer.

WATER MANAGEMENT INFRASTRUCTURE

The following Alberta Government owned water management infrastructure contains infrastructure for which Alberta Infrastructure and Transportation is responsible for routine non-operational maintenance activities.

	System	Description & Legal Land Location	Canal Length (Km)	Additional Area (M2)
	Little Bow Canal	Multiple NE 06 19 28 W4	10.00	1000m2
	Womans Coulee Reservoir	Dam / Canal NW 25 18 30 W4	15.20	1900m2 of Under-ground culvert
TOTAL:			25.2	2900m2

Work identification is completed by Alberta Environment staff and work requests are then forwarded to Alberta Infrastructure and Transportation for execution by the highway maintenance contractor.

Typically, the Work shall be completed using applicable bid items for the given classification of Work. Work not covered by bid items shall be paid for as Extra Work.

Water Management Infrastructure work would typically include grading gravel surfaces, regravelling, installation and maintenance of livestock guards, mowing and weed control, fencing and other activities normal to highway maintenance. The estimated quantities for this routine maintenance work have been included in the unit price schedule. Also, the Department anticipates some non-routine work which is not included in the unit price schedule (such as silt removal) will be required for the duration of the contract. Work deemed as “Non-routine” by the Department will be classified and paid for as Extra Work in accordance with Specification 51.2.28.

Following is a list of typical and “non-routine” work for this CMA, which may include, but not be limited to:

- Silt/Debris Removal from canals & structures
- Erosion Protection work
- Canal Structure Repair work
- Fence/Gate Repair work including Cattle guards

- Install and remove flood gates every spring and fall
- Weed control- mowing and chemical spraying
- Grading and gravelling of rider roads
- Install and maintain signs along canal
- Regular inspections of entire system

D. APPLICATION OF PRICE ADJUSTMENT FACTOR

The price adjustment factor calculated for the 2006/2007 Departmental fiscal year will be applied to the unit prices bid for this RFP at commencement of the Contract on August 1, 2006. For each subsequent Departmental fiscal year (that is, April 1 to March 31) until contract termination, a price adjustment factor will be calculated and applied in accordance with Specification 51.2.64, Price Adjustment Due To Inflation.

E. PAYMENT FOR PURCHASED MATERIAL AS EXTRA WORK

Further to item (b) in Section 51.2.28.5, Purchased Material, of Specification 51.2.28, Extra Work, payment will only be made at the wholesale or retail original invoice price for the material(s), plus the 15% markup. Additional markups made by subcontractors will not be considered for payment.

The Contractor, whenever possible, shall obtain 3 quotes for the purchase of materials. The Department reserves the right to request and review the quotes, prior to payment, to ensure that best value was obtained.

F. CHANGE IN SHOP LOCATIONS DURING THE TERM OF THE CONTRACT

Permanent relocation of a Shop shall be subject to the approval of the Department. In these cases, the Department's main concern will be that the Contractor provides the same level of service for all highway maintenance activities after the relocation as before the relocations, at no additional cost to the Department.

Generally, if the required level of service can be maintained without increasing the number of snowplow trucks, the request to relocate the Shop would be approved. However, if additional snowplow trucks and/or operators are required to maintain the required level of service, the "Availability Rate" for such trucks and/or operators, and the "Heated Storage" rate, will not be paid. In addition, no adjustment to the snowplow truck hours or salt usage footprints will be made due to these additional resources.

Also, the Department will not entertain requests for increases to the Indirect Operating Costs due to changes in shop locations requested by the Contractor.

G. PROVISION OF MATERIALS

The Contractor shall maintain, at any time, within the CMA, a minimum quantity of maintenance materials. Payment will be made at the time when these materials are incorporated into the Work using the applicable bid items for supply and installation of these materials. There is no separate payment for the storage of these materials or any other associated costs for maintaining these materials in inventory. The following are the minimum quantities required:

Sign Number	Sign Description	Sign Dimensions(cm)	Sign Quantity
RA-1	Stop	60 X 60	10
		90 X 90	4
		120 X 120	2
RA-2	Yield	75 X 75 X 75	2
WA-22	Bump	75 X 75	10
Materials			Quantity
W-Beam Guardrail – 3.81 metre sections			25
W-Beam Guardrail– Turn Down End Sections			2
Treated Timber Guardrail Posts 150 cm X 200 cm @ 1.52 metres long			25
Treated Timber Guardrail Posts 150cm X 200cm @ 2.13 metres long			5
Flexible Guidepost Delineators			100
Box Beam Posts			10
Pothole patching proprietary mix [per shop location]			Minimum of 1 tonne

H. HIGHWAY MAINTENANCE WORK

SCHEDULED ROAD INSPECTIONS YEAR ROUND (DAYTIME)

Road Inspections shall be conducted year round including statutory holidays in the daytime on the following roads and at the following weekly frequencies:

Inspection	Description	Approx. Length Of Circuit Distance (Kms)
A	2:10, 2:12, 2:15, 2A:04, 2A:06, 2A:08, 7:08, 8:06, 22:08, 22:10, 22:12, 22:14, 22X:02, Int 8A, Int 90	298.35
B	23:08, 66:02, 66:04, 547:02, 543:02, 552:01, 549:02, 549:04, 762:02, 758:02, 533:02, 533:04, 804:02, 799:02, 552:02, 540:02, 541:02, 546:02, 773:02, 783:02	460.65
C	546 ID 5, 532:02, 549:02 (Gravel), FTR, 797:02, West Bragg Creek, Moose Mountain, Mclean Creek Trail, Gorge Creek Trail, Powderface Trail, Northfork, Canyon Creek Trail, All Park and Water Infrastructure Roads within CMA 27	264.65

Inspection A shall be patrolled five days a week, Monday to Friday.
 Inspection B shall be patrolled three days a week, Monday, Wednesday, and Friday.
 Inspection C shall be patrolled twice per week, Monday or Tuesday and Thursday or Friday.
 (Note that several highways within ID 5 are closed from December 1 to various opening dates in the spring)

All daytime road inspections shall be conducted during normal working hours (daylight hours) and shall normally be completed prior to 3:00pm of the assigned day. The Contractor shall uniformly schedule the inspections such that they are conducted on a consistent and reasonable cycle.

Inspection reports shall be completed on a standard form supplied by Alberta Infrastructure and Transportation and shall be submitted weekly to the Maintenance Contract Inspector. A copy of the form is included in the Sample Forms Section of the RFP.

The year round daytime road inspections shall include all associated interchanges, intersections, traffic signals, roadside turnouts & vehicle inspection stations (including all litter bins and toilets). All roads are to be inspected in their entirety. The Contractor shall ensure that both directions of divided highways are driven over and inspected at the specified weekly frequency.

Regardless of the patrol frequency of the inspections as defined, the Contractor shall provide all emergency services required to maintain the safety of the traveling public.

The December 25th patrol will only be required if the forecast calls for inclement weather.

SCHEDULED ROAD INSPECTIONS – WINTER (AMA ROAD CONDITION REPORT)

Road inspections shall also be conducted as part of Highway Maintenance Work on Circuit A from October 15 to April 15, and on Circuits B & C from November 1 to March 31 at the frequencies identified below.

The purpose of these circuits is to obtain a sample of the driving condition of the area highways and report the condition of the road to the Alberta Motor Association. The winter night time inspections are for road advisories and winter maintenance response and do not replace the “Scheduled Road Inspections – Year Round (Daytime)” which must still be performed.

Inspection	Description	Approx. Length Of Circuit Distance (Kms)
A	2:10, 2:12, 2:15, 2A:04, 2A:06, 2A:08, 7:08, 8:06, 22:08, 22:10, 22:12, 22:14, 22X:02, 23:08, 773:02, Int 8A, Int 90	366.99
B	547:02, 543:02, 533:02, 552:01, 549:04, 762:02, 783:02	162.74
C	804:02, 799:02, 540:02, 546:02, 552:02	129.12
	TOTAL Kms	658.85

All Circuits shall be patrolled once every night, seven days a week, Monday to Sunday. The AMA Road Condition circuit shall commence after midnight and be completed prior to 6:30 AM. The circuit will continue until the entire area is covered and all emergency services/duties have been performed to maintain the safety of the traveling public. AMA Road Reports shall be completed on a standard form supplied by the Department and shall be submitted by 6:30 AM daily to the Alberta Motor Association, Alberta Infrastructure and Transportation District office and to the Maintenance Contract Inspector. A copy of the form is included in the Sample Forms Section of this document.

The December 25th patrol will only be required if the forecast calls for inclement weather.

During inclement weather, the foreman or his designate will be required to continually monitor the roads during normal working hours as part of Highway Maintenance Work. Highways 2, 2A and 8 in this CMA are high traffic volume routes and therefore may require continuous monitoring during inclement weather conditions.

When requested by the Engineer, highway inspections conducted outside of normal working hours, and which are in addition to the scheduled night inspections, will be paid for as “Additional Road Inspections” in accordance with Specification 53.39.7.2.

INFRARED ROAD AND AIR TEMPERATURE SENSORS

All patrol vehicles involved in snow/ice removal operations shall be equipped with a dynamic infrared road and air temperature sensor that is capable of being calibrated. The sensor display shall be mounted inside the cab and be positioned in an area visible to the operator.

ROUTINE HIGHWAY MAINTENANCE ACTIVITIES

The Contractor shall record daily and report weekly, with forms provided by the Department, on all work that is performed under the Highway Maintenance Work activity. As part of these reports the person carrying out the inspection should be observant and record work that may be required in the near future. These reports will be submitted to the MCI so quantities can be collected and work orders written.

The Contractor will ensure that all items under 53.39.4.3 Emergency Duties, are addressed and corrective action taken immediately upon notification from other parties, or when identified during inspections.

During patrols at night the contractor shall record daily and report weekly, with forms provided by the Department, on all work that is required to correct any area lighting problems, or any traffic signals which require replacement or repair as part of their inspection. The contractor will also record and report on any traffic signs that have low reflectivity and require replacement.

GUIDEPOST TRAFFIC DELINEATORS (includes Wildlife reflector post/support)

Routine highway maintenance includes straightening or re-installing delineators in the original hole and shall include cleaning out the existing hole. This work may require the use of hand tools.

The Contractor is expected to straighten delineators and replace reflectors continuously throughout the year.

Other delineator deficiencies may require attention during other time periods, as directed by the Engineer. Steaming of existing delineator posts may be necessary. During mowing, plowing or any other maintenance activity, all delineator posts damaged by the Contractor or his subcontractors are to be replaced as soon as possible.

All guide posts damaged by the Contractor during non-snow and ice control activities, such as mowing, shall be replaced by the Contractor at his own expense. The number and location of delineator posts replaced at the Contractor’s expense shall be reported monthly to the Maintenance Contract Inspector.

It is the Contractor’s responsibility to take reasonable measures to protect guide posts during snow removal and ice control work. When, in the opinion of the Operations Manager or Maintenance Contract Inspector, reasonable measures have been taken then replacement of damaged guide posts will be paid for in accordance with Specification 54.19, Guide Posts. If the Contractor has not taken reasonable measures to protect the guide posts, such as lifting a grader’s wing and going around the guide post when winging shoulders, then the Contractor will be required to replace the damaged guide posts at his own expense.

SIGN MAINTENANCE

All signs within the highway right-of-way shall be maintained in accordance with Specification 53.39, with the exception of privately owned signs located on the backslope or along the outside edges of the right-of-way. Privately owned permanent signs located on the highway sideslope shall be maintained by the Contractor. Following is a list of privately owned signs that may be situated within the highway right-of-way. Other privately owned signs, although not included in this list, will also be subject to this provision.

Sign Type	Comments/Example
"Welcome To ..." signs for Cities, Towns, Etc.	Note: "Welcome to Alberta" signs are Provincially owned
Rural Address Signs	Range Road signs, Local/Municipal – Directional/Mileage signs
Service Organization Signs	Club Signs, Church Fingerboards, Rural Crime Watch
AMA Signs	Odometer Test Sections
Private Utility Warning Signs	Danger Buried Facilities, Danger Overhead Power Lines
Industrial/ Institutional Signs	Industrial Subdivision, Park or Development (well site battery)
Truck Turning Signs for private access	

No price adjustment or extra payment will be made for maintenance of new or additional signs installed over the term of the Contract.

INCIDENTAL MATERIALS

PORTABLE STOP SIGNS

In accordance with Specification 53.39.2.1, Incidental Materials, the Contractor shall provide 6 (six) sets of 4 (four) portable stop signs (RA-1) as follows;

- 1 set for 194th Ave on 2A:08
- 1 set for 117th St. on 8:06
- 4 sets in the High River area

PROVISION OF “POLICE EMERGENCY AHEAD” SIGNS

In accordance with Specification 53.39.2.1, Incidental Materials, the Contractor shall provide one “Police Emergency Ahead” (WD-200) sign for each vehicle engaged in road inspections throughout the CMA as well as each foreman’s vehicle.

PROVISION OF “SMOKE AHEAD” (WD-175), “BUMP” (WA-22) AND “FLOODED ROAD AHEAD” SIGNS

In accordance with Specification 53.39.2.1 Incidental Materials, the Contractor shall provide “smoke ahead”, “bump” and “flooded road ahead” signs as required for temporary hazards on the highways as they occur. The Contractor shall have 4 of each type of sign on hand for this CMA.

PAYMENT

Costs associated with the storage, setup and removal of the above signs shall be considered incidental to the Highway Maintenance Work activity and no separate or additional payment will be made.

REPORTING AND DISPOSAL OF WILDLIFE ROADKILL

The Contractor shall keep a record of wildlife roadkill locations and numbers and supply this information to the MCI or local Conservation Officer monthly. Wildlife roadkill shall be disposed of at an approved landfill site. Wildlife roadkill shall not be disposed of in Crown gravel pits under any circumstances, unless approved by the Engineer.

REFUSE PICKUP

Any objects, litter or refuse seen on the road surface shall be removed immediately. Generally items that are smaller than a baseball cap can be ignored if they are made of paper and/or plastic, such as fast food wrappers or cigarette packages, and do not pose a danger to motorists. Solid

items made from wood, steel or stone such as dimensional lumber, chain or a rock, even if smaller than a baseball cap, should be picked up immediately. As a rule-of-thumb, if a motorist would swerve to avoid the object, then it should be picked up.

Any objects, litter or refuse seen within the highway right of way shall be removed within 24 hours. Generally this refers to items the size of a 5 gallon pail or larger. As a rule-of-thumb, if the mowers would need to go around the object then it should be removed. This does not relieve the Contractor of his duty to complete a thorough clean up of all refuse from within the highway right of way at the specified intervals.

Any hazardous materials, in any form, seen on the road surface or in the highway right of way, are to be removed without delay so that danger to the public is eliminated. Immediate verbal report shall be made to the MCI for hazardous materials.

In addition, the Engineer may request clean-ups in localized areas where large amounts of litter have accumulated. Normally, these requests will be for areas in close proximity to urban areas and landfills.

MINOR CULVERT AND DRAINAGE GRATE MAINTENANCE

By May 30th of each year, the Engineer will provide the contractor a list of highways requiring attention that will amount to approximately 20% of the highways. The Contractor shall complete the work as specified in Specification 53.39.4.4 (Routine Highway Maintenance Activities) by September 30th of each year. All deficiencies are to be recorded and a report forwarded to the Engineer for further investigation of work requirements.

WASHING SIGNS, DELINEATORS, REFLECTIVE STRIPS ON GUARDRAIL AND DURABLE PAVEMENT MARKINGS

The Contractor shall commence washing signs, delineators and reflective strips on guardrail within two working days of the end of a winter storm and be completed within ten working days of the end of the storm. Washing shall continue until all signs, delineators and reflective strips are clean, or another winter storm event intervenes. Between November and March the washing of signs, delineators and reflective strips on guardrails shall be done as requested by the Engineer at a frequency of approximately once per month.

Summer washing (April to October) of these items along gravel roads will be required approximately once every month, or as requested by the Engineer. Summer washing of these items along paved roads shall occur at least once during the summer months, or as requested by the Engineer. Extra sign washing may be requested in urban areas or before special events in localized areas.

The Contractor shall also wash all durable thermoplastic pavement markings at least once per year, usually in the spring after sweeping operations.

PERMANENT SNOW FENCE

The Department may install permanent snow fences prior to or during this contract. There will be approximately 8000 metres of permanent snow fence located in CMA 27.

FROST PROBES

Frost probes shall be read twice a week from November 1, until the frost is in the road to a depth of 120 cm, then every two weeks until the frost starts coming out of the road. In the spring, the probe is then read twice weekly until the frost is completely out of the ground.

The reading schedule is subject to revision by the Engineer depending on weather conditions. These readings shall be phoned into Motor Transport Inspection Services.

Routine maintenance of frost probes shall be carried out by the Contractor as required. At minimum they shall be serviced once per year. The work shall be considered incidental to Highway Maintenance Work and includes the following:

- Replace or clean cap and grease threads, also clean thread collar.
- If collar is loose, old concrete shall be removed and replaced with new quick drying concrete.
- Remove frost probe tube and suction out any water in the casing.
- Empty tube of old dye and replace tube with new one if the tube has become cloudy.
- Fill tube with new dye each year.
- Replace rusted clamps.
- Mark 30 cm gradations on the tube
- Identify frost probe location on the road.

Other work not specified will be paid as extra work. Refer to the detail drawing of typical “Frost Penetration Probe Installation” found in these Special Provisions.

Frost probes are located at the following locations:

- Highway 2A:08 at the Self Weigh
- Highway 8:04 south of Brant

LOCATION OF PUBLIC FACILITIES

Various public facilities are located within the boundaries of this CMA. The Contractor shall maintain and service the following in accordance within Specification 53.39. Litter bins may also require steam cleaning once or twice per year and can be done during sign and guidepost cleaning operations.

LITTER BIN LOCATIONS	NO. OF BINS
Highway 2A:08 at Self Weigh Site	3
Highway 2:12 North of High River	3
Highway 22:10 South of 532	1

LITTER BIN LOCATIONS	NO. OF BINS
Highway 22:12 North of Turner Valley	2
Highway 22:14 at Bragg Creek	1
Highway 533:02 west of Nanton	1
Highway 546 I.D. 5 West of Turner Valley	1

There may be additional litter bins installed within the CMA during the term of the Contract, and these shall also be maintained at no extra cost.

MAINTENANCE OF FLASHING BEACONS AND SIGNALS

The Contractor shall, as part of routine duties, perform minor maintenance work on signals and lighting system, in accordance with Specification 53.39 on the following facilities:

Hwy. No.	Type (Signals/Lights/X-Walk)
Int 8A	Flashing Amber – end of Box Beam Guard Rail over the Overpass
Int 90	Flashing Amber – end of Box Beam Guard Rail over the Overpass
7:08	Flashing Red – Jct. Hwy. 2:12
547:02	Flashing Red – Jct. Hwy. 2:12
783:02	Flashing Red – Jct. Hwy. 7:08
Former 2A:06	Flashing Red – Jct. Hwy. 7:08
22X:02	Warning Beacons for Divided Highway
8:06	Traffic signals at 117 th Street
2A:08	Traffic signals at 194 th Ave
22:14	Warning Beacons for Divided Highway
22:12	Pedestrian Crossing Signal Town of Turner Valley
22:12	3 Pedestrian Crossing Signal Town of Black Diamond
22:12	Pedestrian Crossing Signal Town of Longview
552:02	Solar Power Beacons for narrow bridge
2A:08	Advance warning signals for 194 th Ave
2:10	Pedestrian Crossing Signal in Town of Nanton
23:08	2 sets of Traffic Signals in Town of High River
2A:04	2 sets of Traffic Signals in Town of High River
552:01	Future Flashing signal
2A:08	Future Traffic Signals at Dunbow Road

Any parts or electrical components of the light systems which require further service shall be reported to the Engineer, who will issue a Work Order or make arrangements for an electrical contractor to perform the Work.

The Contractor shall supply all required bulbs and other materials necessary to complete the Work. Light bulbs are generally required to be 69 or 119 watts, should be rated at 8000 hours life or better and shall have a minimum of five filament support.

No separate payment will be made for this Work. Minor maintenance of lights including the supply of appropriate bulbs and any equipment required to reach the light system, will be considered incidental to the Work.

No additional payment will be made if the scope of work increases due to expansion of the highway network. Also, from time to time there may be additions or deletions to the above list of flashing beacons and signals. The Contractor shall perform minor maintenance work on any additional flashing beacons and signals added to the system. No adjustment to payment will be made for future additions or deletions of flashing beacons and/or signals.

LED SIGNAL HEADS

GENERAL

LED signal heads shall conform to the requirements specified herein.

All wiring and terminal blocks shall meet the requirements of Section 13.02 of the ITE Vehicle Traffic Signal Heads (VTCSH) standard. Two secured, colour coded, 914 mm (36 in) long 600 V, 20 AWG minimum, jacketed wires, conforming to the National Electrical Code, rated for service at +105°C, are to be provided for electrical connection.

VOLTAGE RANGE

LED signal modules shall operate from a 60 ± 3 cycle AC line power over a voltage range from 80 VAC RMS to 135 VAC RMS. The current draw shall be sufficient to ensure compatibility and proper triggering and operation of load current switches and conflict monitors in signal controller units the procuring agency has in use.

Nominal operating voltage for all measurements shall be 120 ± 3 volts RMS. Fluctuations in line voltage over the range of 80VAC to 135 VAC shall not affect luminous intensity by more than ± 10 percent.

The LED circuitry shall prevent flicker at less than 100 Hz over the voltage range. It must be ensured that the product will not show illumination for input voltages below 45 volts.

TRANSIENT VOLTAGE PROTECTION

The signal module on board circuitry shall include voltage surge protection to withstand high repetition noise transients and low repetition, high energy transients as stated in Section 2.1.6, of NEMA Standard TS 2, 1992.

LED DRIVE CIRCUITRY

The individual LED light sources shall be wired so that a catastrophic failure of one LED light source shall result in the loss of not more than 20 percent of the signal module light output.

ELECTRONIC NOISE

The LED signal and associated on board circuitry shall meet Federal Communications Commission (FCC) Title 47, SubPart B, Section 15 regulations concerning the emission of electronic noise.

POWER FACTOR (PF) AND AC HARMONICS

LED signal modules shall provide a power factor of 0.90 or greater when operated at nominal operating voltage, and 25° C (77° F).

Total harmonic distortion induced into an AC power line by an LED signal module, operated at nominal operating voltage, with a power consumption equal to or greater than 15 watts at 25° C (77° F) shall not exceed 20 percent. Total harmonic distortion induced into an AC power line by an LED signal module, operated at nominal operating voltage, with a power consumption less than 15 watts at 25° C (77° F) shall not exceed 40 percent.

I. MINIMUM NUMBER OF FOREMEN

The minimum number of foremen required to supervise work within this CMA is **3 (three)**. The Department considers this to be the minimum number to adequately supervise winter snow and ice control activities.

These Foremen shall be dedicated to full time supervisory duties and must be available locally and on a wide spread basis to meet with Department personnel on issues pertaining to the Work. Foremen shall also be available during “off-hours”.

These Foremen shall not be “Lead Hands” or “Working Foremen” that would not be widely available for inspection and supervisions during winter storms. Foremen shall not be assigned full time duty as an equipment operator during the winter season. This does not preclude a Foreman from occasionally driving snow and ice control equipment, but operating equipment must not be part of his expected duties every time a winter storm occurs.

A Foreman’s winter residence shall be within half an hour of his assigned shop or main work centre.

J. WINTER READINESS

The Contractor will be required to complete a "Winter Readiness Checklist" form prior to October 15 of each year. The completed form shall be returned to the Department by October 15 of each year. A copy of this form can be found in the Department Sample Forms section of the RFP.

K. SNOW REMOVAL AND ICE CONTROL

The Prospective Contractor, in the Winter Service Delivery plan of his Proposal, shall identify details of the type and location of snow/ice control equipment within the proposed Contract area

boundaries. The Department has specific requirements, to ensure the public safety is properly maintained.

HOT SPOTS

There are three Hot Spot areas in CMA 27 as follows:

Aldersyde area

- Hwy 2:15 – Int. # 90 and Hwy 2:15 to Jct Hwy 2A:08

Chain Lakes area

- Hwy 22:08 – Jct. Hwy. 520 to Davis Hill

Elbow Falls area

- Hwy 22:14 – Jct. Hwys 22X & 22:12 to Jct. Hwy 66:04

SNOWPLOW TRUCK FLEET AND EQUIPMENT REQUIREMENTS

Following is a list of the minimum fleet and equipment requirements for CMA 27:

- A minimum of 18 snowplow trucks (Minimum hopper size is 8.5M3)
- All snowplow trucks shall have front mounted two-way plows
- All snowplow trucks shall be equipped with the Department's selected Automated Vehicle Location System (AVLS) in accordance with the AVLS Special Provision
- No single axle trucks shall be allowed
- All trucks shall be equipped with pre-wetting units.
- 13 (thirteen) tandem trucks shall be equipped with wings mounted on the right hand side. Most wing trucks to be located where they can be utilized on undivided highways.
- Wings, pup sanders, anti-icing units or any other additional snow control equipment will not be allowed in combination on any trucks, unless approved by the Engineer.
- All trucks are to be housed in inside heated storage.

The final location of the trucks with pup sanders, anti-icing units or wings will be subject to the approval of the Engineer.

The wing trucks will be assigned to roadways where they can be best utilized (i.e. roadways with shoulders > 0.8 metres in width). The final location of the trucks with wings will require the approval of the Engineer.

An increase in the length of roadways to be maintained may result in a requirement for additional snow removal and ice control trucks and equipment during the term of the Contract. Changes in winter maintenance equipment requirements will be negotiated with the Contractor by the Engineer when the length of roadway changes.

NUMBER OF SNOWPLOW TRUCKS

The Prospective Contractor shall calculate the number of snowplow trucks required in his Snow/Ice Control Plan. The number shall be calculated using the following formula:

$$\{(Proposed\ Truck\ Demand\ Factor) \div (Base\ Truck\ Demand\ Factor)\} \times (Base\ No.\ of\ Trucks)$$

For this particular CMA, base information is as shown:

Base Truck Demand Factor	Base No. of Trucks
23,223.3	20

If the Prospective Contractor submits a Proposal consisting of multiple CMAs, then the cumulative value of Base Truck Demand Factor and Base No. of Trucks must be used, to calculate the number of trucks required within the Proposal. Regardless of the total, all the specific individual equipment requirements of each CMA must be met.

Within the Snow/Ice Control Plan, the Prospective Contractor shall clearly demonstrate that the number of snowplow trucks and the requirements for specific equipment are met, in number, type and location.

The minimum number of snowplow trucks for this CMA is 18.

TRUCK AND OPERATOR AVAILABILITY

In accordance with Specification 52.1, Snow Removal and Ice Control (Truck), the Contractor shall supply trucks, operators and related equipment for the following periods:

For trucks and operators in CMA 27, the availability period is from October 15 to April 15.

PLOW TRUCK HOUR PAYMENT ADJUSTMENT

For CMA 27, the quantity which will be used to initially establish the “footprint” for payment adjustments (Specification 52.1) of snowplow truck hours is **5,403** hours. This value will be adjusted annually to account for variations in the total annual snowplow truck hours worked, and to account for increases or decreases in the highway network length.

The following table shows the method, and the actual numbers used, to calculate the total quantity of hours for establishing the initial footprint. The initial calculation is based on the last three years of data which encompassed all Provincial highways, starting with the 2001/02 fiscal year. Years previous to 2001/02 exclude 3 digit highways (formerly known as secondary highways) as they were not under Provincial jurisdiction, therefore data from those years are not applicable to the footprint calculation.

This table also provides a sample calculation on how the 2004/05 snowplow truck hours will be determined for the footprint.

ESTIMATED SNOWPLOW TRUCK HOURS CALCULATION DETAILS FOR FOOTPRINT			
Year	Total Hours	Length 2 lane equiv km	Hrs/2LEkm
01/02	3,517	902	3.90
02/03	6,001	902	6.65
03/04	6,702	902	7.43
Totals:	16,219	2,706	5.99
2003/04 Total Hours Estimate for Footprint			
902km x 5.99 h/Km = <u>5,403</u>			
Where: 902 is the 2LE kms for roads included in the Main Hwy. Table of the WSD Spreadsheet, and 5.99 is the weighted average for hours/2LE km			
<u>Sample</u> Calculation for the 2004/05 Footprint			
Year	Total Hours	Length 2 lane equiv	Hrs/2LEkm
Previous Totals	16,219	2,706	5.99
04/05	*5,800	902	6.43
Totals:	22,019	3,608	6.10
2004/05 <u>SAMPLE</u> Calculation:			
902km x 6.10 h/Km = <u>5,502</u>			
Where: 902 is the 2LE kms for roads included in the Main Hwy. Table of the WSD Spreadsheet. <i>* 5,800 hours is <u>not</u> actual or an estimate, it is provided only to complete this sample calculation. The actual annual total hours will be used at the time of calculating the footprint.</i>			

Subsequent years will use this same process for calculating quantities in establishing the footprint, and the totals will be carried forward from year to year.

L. TEMPORARY SNOW FENCE

For this CMA, the Contractor shall retain ownership of all temporary snow fence supplied and installed. Reinstallation of salvaged temporary snow fence will be paid for at the unit price bid for "Snow Fence - Supply and Install", provided it is in a condition suitable to the Engineer. Salvaged temporary snow fence deemed as unsuitable for re-use by the Engineer shall be replaced by the Contractor with new materials.

M. AUTOMATED VEHICLE LOCATION SYSTEM (AVLS) FOR SNOWPLOW TRUCKS

The Department has engaged Grey Island System Inc. to implement an internet based real-time AVLS using Global Positioning System technology (GPS) into snowplow trucks. In addition to the GPS location component, this system will be integrated with the snowplow trucks' spreader control device and attachments. The AVLS will monitor, record and transmit such information as vehicle ground speed, spread rate, blast on/off, spreader pausing, pre-wetting on/off, pre-wetting rate, and plow and wing(s) positioning (up or down). Also, the AVLS provided by Grey Island Systems Inc. will include an automated billing system that will be the basis for tracking and payment of snowplow truck hours worked.

To ensure that a fully integrated and seamless system is attained province wide, all Highway Maintenance Contractors will be required to incorporate Grey Island's AVLS into their snowplow trucks. It is anticipated that all snowplow trucks under contract with Alberta Infrastructure and Transportation will have this capability by the 2006/07 winter season.

All snowplow trucks required under the terms of this RFP are subject to the AVLS provision and shall be so equipped by October 1, 2006. All attachments of each snowplow truck, such as plows, wings and pre-wetting units, must be integrated into the AVLS. The Prospective Contractor shall account for all costs required to implement the AVLS into his proposed snowplow truck fleet.

The Department has secured a price of **\$1,440.00** per unit with Grey Island Systems Inc. for the supply and installation of the AVLS hardware. This price covers all hardware required for the AVLS including one attachment sensor (normally the plow). Other attachments requiring sensors such as wings and pre-wetting devices will be at an additional cost of **\$300.00** per attachment. Also, this pricing includes field training on the AVLS hardware by Grey Island Systems Inc., however the Contractor will be responsible for all of his internal costs including salary of personnel.

The above pricing is based on spreader control devices that are capable of integration with Grey Island's AVLS without upgrades. Spreader control devices requiring upgrades or replacement to interface with Grey Island's AVLS will be at the Contractor's own cost, with the exception that development of any communication protocols that may be required for integration is included in the unit price.

Following is a list of the known spreader control devices that are compatible with Grey Island's AVLS. Other makes and models of spreader control devices may require upgrades or replacement. The Prospective Contractor is encouraged to contact Brian Boychuk of Grey Island System's Inc. at (416) 348-9991 to confirm compatibility of the spreader control device with the AVLS, and to estimate the upgrade or replacement costs if so required.

- Accucast
- CompuSpread 230
- CompuSpread 440
- Dickey John

- EPOKE
- Force America

Maintaining the AVLS hardware throughout the term of the contract will be the responsibility of the Contractor. In addition to the AVLS hardware costs, the Prospective Contractor will be required to provide software or a file conversion program compatible with the Department's Automated Billing System, as developed by Grey Island Systems Inc. All other system costs such as licensing, operating costs, airtime costs for communications, and data management costs will be the Department's responsibility.

N. PRE-WETTING SYSTEMS

For this CMA, **all** snowplow trucks shall be equipped with pre-wetting systems that meet the requirements of Specification 52.9. The minimum storage capacity for pre-wetting agents is 5000 litres per truck, and between October 15th and April 15th of each year no less than 50% of the total required minimum quantity shall be on hand at all times.

The Department intends to use salt brine as the main pre-wetting agent for this CMA. Costs for producing salt brine, and transporting it to the storage site will be paid for at the unit price bid for "Supply of Salt Brine for Pre-Wetting". Salt used for the production of salt brine will be paid for at the applicable unit price bid for supply of salt at the shop(s) where the salt brine was produced.

In accordance with Specification 52.9, Pre-Wetting Systems, costs associated with providing storage for salt brine shall be included in the unit price bid for "Indirect Operating Costs", and no separate or additional payment will be made.

O. MOTOR GRADER REQUIREMENTS

Minimum requirements for grader units and approximate areas are as follows:

Chain Lakes – 1 (one) six wheel drive grader with wing and front mount plow
Black Diamond – 2 (two) graders with wings, one with front mount plow
Elbow Falls – 1 (one) grader with wing and front mount plow

"V" PLOW ATTACHMENTS

A minimum of one motor grader in CMA 27 shall be capable of using a "V" plow attachment for plowing snow. The Contractor will supply a "V" plow attachment for the grader and will be paid by the hour for each hour that the "V" plow is actually being used as requested by the Engineer. A bid item titled "V plow attachment" has been included in the unit price schedule for this work.

PAVED HIGHWAYS

Motor Graders shall be equipped with right hand wings (for winging sideslopes) and chains for winter operations during the period of availability listed in the special provisions or as otherwise approved by the Engineer.

The specific locations of the motor graders are at the discretion of the Contractor, who shall respond within 24 hours of the issuance of the Work Order.

GRAVEL HIGHWAYS

The locations of the motor graders are at the discretion of the Contractor, who shall respond within 24 hours of the issuance of the Work Order.

All motor grader Work Orders shall be completed within 10 days of issuance of the Snow and Ice Work Order, or as otherwise requested by the Engineer.

Motor Graders shall be equipped with right hand wings (for winging sideslopes) and chains for winter operations during the period of availability listed in the special provisions or as otherwise approved by the Engineer.

P. PROVISIONS FOR SALT STORAGE (BASE SALT STORAGE QUANTITY)

The Prospective Contractor must identify in his Proposal, the location and distribution of salt storage facilities within the Contract area boundaries.

The Gradation of Salt required for this CMA is medium (Type II).

The annual provisional quantity for salt in CMA 27 is 3570 tonnes.

The Winter Salt Distribution Factor for CMA 27 is **3.96** tonnes per two lane km. equiv. (3570 tonnes ÷ 902 km).

All sites identified by the Prospective Contractor in his Proposal, shall have a minimum quantity capacity of either 250 tonnes or 45 % of the projected usage from that site, as calculated in the Prospective Contractor's Snow/Ice Control plan, whichever is greater, plus any additional salt that is intended for sale to third parties by the Contractor. In cases where shops have been purchased or leased from the Department, the existing salt storage capacity will be considered adequate.

The Prospective Contractor's annual provisional quantity for each salt storage site shall be calculated according to the following calculation:

(Winter Salt Distribution Factor) x (Length of roadway serviced by that site)

The length of the roadway serviced by that site must be identified within the Prospective Contractor's Snow/Ice Control Plan.

For multiple CMA proposals, the overall or cumulative quantity of salt storage capacity must equal or exceed the cumulative value of base salt storage quantity for all CMAs within the Proposal.

PAYMENT ADJUSTMENT FOR SALT USAGE

For CMA 27, the quantity which will be used to initially establish the “footprint” for payment adjustments (Specification 52.8) of salt used is **3,229** tonnes. This value will be adjusted annually to account for variations in the total annual salt usage, and to account for increases or decreases in the highway network length.

The following table shows the method, and the actual numbers used, to calculate the total quantity of salt for establishing the initial footprint. The initial calculation is based on the last three years of data which encompassed all Provincial highways, starting with the 2001/02 fiscal year. Years previous to 2001/02 exclude 3 digit highways (formerly known as secondary highways) as they were not under Provincial jurisdiction, therefore data from those years are not applicable to the footprint calculation.

The following table also provides a sample calculation on how the 2004/05 salt tonnage will be determined for the footprint.

TOTAL ESTIMATED SALT TONNES CALCULATION DETAILS FOR FOOTPRINT			
Year	Total salt usage (t)	Length 2 lane equiv km	t/2LEkm
01/02	2,819	902	3.13
02/03	3,724	902	4.13
03/04	3,139	902	3.48
Totals:	9,682	2,706	3.58
2003/04 Total Salt Tonnes Estimate for Footprint:			
902km x 3.58 t/Km = <u>3,229</u>			
Where: 902 is the 2LE kms for roads included in the Main Hwy. Table of the WSD Spreadsheet, and 3.58 is the weighted average for tonnes/2LE km			
<u>Sample Calculation for the 2004/05 Footprint</u>			
Year	Total salt usage (t)	Length 2 lane equiv km	t/2LEkm
Previous Totals	9,682	2,706	3.58
04/05	*3,500	902	3.88
Totals:	13,182	3,608	3.65
2004/05 <u>SAMPLE</u> Calculation:			
902km x 3.65 t/Km = <u>3,292</u>			
Where: 902 is the 2LE kms for roads included in the Main Hwy. Table of the WSD Spreadsheet. <i>* 3,500 tonnes is <u>not</u> actual or an estimate, it is provided only to complete this sample calculation. The actual annual total tonnes will be used at the time of calculating the footprint.</i>			

Subsequent years will use this same process for calculating quantities in establishing the footprint, and the totals will be carried forward from year to year.

Q. WINTER SANDING MATERIALS

The Prospective Contractor must identify in his Proposal, the location and distribution of sand storage facilities within the proposed Contract area boundaries. Unless otherwise specified elsewhere in this RFP document, sand and salt must be stored in the same yard at each location.

Sand storage must have adequate capacity for 125% of the entire provisional quantity of 23,600 tonnes for the CMA, plus any additional sand that is intended for sale to third parties by the Contractor.

The Winter Sand Distribution Factor for this CMA is **26.16 tonnes** per two-lane km. equiv. (23,600 tonnes ÷ 902 km).

The Prospective Contractor's annual provisional quantity for each sand storage site shall be calculated according to the following calculation:

(Winter Sand Distribution Factor) x (Length of roadway serviced by that site)

The length of the roadway serviced by a site must be identified within the Prospective Contractor's Winter Service Delivery Plan.

For the duration of the Contract, the Contractor shall supply sodium chloride treated sand as per Specification 52.5 at the locations identified in the Proposal. When the Department determines that renewal of existing sand/sodium stockpiles is required, the Contractor shall add sodium chloride as per Specification 52.5 unless otherwise directed by the Engineer.

Winter sanding material shall conform to the gradation characteristics outlined below. The material can be manufactured or blended. All material must conform to this Specification within a 3% tolerance on the top size.

SIEVE SIZE (µm)	% Passing
8000	100
5000	75-95
1250	27-50
315	10-25
160	6-18
80	0-11
Plasticity Index (PI)	NP-6

R. STORAGE OF TREATED SAND

All treated sand stored on the Contractor's maintenance facility shall be sheltered in indoor structures, including treated sand that is intended for sale to third parties. Treated sand purchased from third parties for use on roads and highways under the Department's jurisdiction must also be sheltered in indoor structures in accordance with the provisions contained herein. Furthermore, any third party site used for the supply of treated sand will require an Environmental Management Plan which meets the requirements of the Special Provision for "Environmental Management of Maintenance Facilities".

Indoor structures shall be designed to accommodate a minimum of 125% of the annual provisional quantity of sand indicated in the Unit Price Schedule for each location, plus any additional sand that is intended for sale to third parties by the Contractor.

Indoor structures shall be constructed on an impermeable floor of asphalt, concrete, or other suitable material that is graded away from the center of the structure for drainage purposes. The pad shall extend around the exterior of the structure and be graded away from the building, such that runoff is prevented from entering the structure. The indoor structure shall be completely enclosed providing coverage from wind and rain in all directions. The roof and exterior of the structure shall be constructed of waterproof material, such that precipitation and moisture are prevented from entering the structure. A tarp supported by the pile will not be considered as an indoor structure.

Maintenance Facilities designated as High Priority Sites in accordance with Section 2, 'Introduction' of the "Environmental Management Plan Guidelines for Highway Maintenance Yards" require indoor structures capable of accommodating covered loading and mixing operations in addition to storage of the materials.

S. CHIPS FOR SNOW AND ICE CONTROL ON GRAVEL ROADS

For this CMA, chips are used as a sanding material on gravel roads and shall be stockpiled in the same locations as the sand and salt storage sites. However, these chips do not need to be sheltered indoors, and do not have to be stored in a designated area (i.e. on an asphalt pad that has runoff directed to a containment pond), as they will not be treated with salt.

These chips shall conform to the following gradation characteristics.

SIEVE SIZE (µm)	% Passing
12500	100
10000	55-75
5000	0-15
1250	0-3

Note: A tolerance of three percent in the amount passing the maximum size sieve will be permitted provided all oversize material passes the next larger standard sieve size (16000 micrometers).

Spreading of the chips will be in the same manner as winter sanding materials (from a plow truck equipped with a hopper and spreader). The Contractor is advised that this material will not be included in calculation of the sand distribution factor.

Following are the annual provisional quantities of chips that will be required per area:

- Aldersyde: 100 tonnes
- Black Diamond: 300 tonnes
- Chain Lakes: 300 tonnes
- West Calgary: 300 tonnes

Payment will be made at the unit price bid per tonne for "Chips for Gravel Roads – Supply and Stockpile". This payment will be full compensation for producing, hauling, and stockpiling the material at the Contractor's storage sites; and for all labour, materials, equipment, tools, and incidentals necessary to complete the work. Supply of the aggregate used to produce the chips will be paid for in accordance with Specification 55.4, Supply of Aggregate.

Costs associated with spreading of the chips will be considered incidental to the applicable unit prices bid for snow removal and ice control, and no separate or additional payment will be made.

T. WINTER SERVICE DELIVERY (WSD) SECTIONS AND CLASS

For the purposes of comparing Proposals between Prospective Contractors, the Department has divided the entire highway network into "Sections". Each Section is assigned a "Class", which identifies its relative significance, as outlined in "Winter Service Delivery – Details" within the network.

Winter Service Deliver (WSD) Sections have been fixed prior to the RFP and can not be altered by the Prospective Contractor within his WSD Control Plan.

Details of WSD Sections are identified in the following table, and in the "Main Highway Table" of the WSD spreadsheet. An electronic copy of this spreadsheet is provided on the CD included with the RFP package.

Sec	Road	Class	Description	2 Lane Equiv Length	AADT	Allowable plowing time	Allowable sand/salt time
1	22:08	E	Jct Hwy 520 to Davis Hill - HOT SPOT	12.94	1,750	1.5	1.5
2	22:08	E	Davis Hill to Jct Hwy 533	14.00	1,750	3	6
3	22:10	E	Jct Hwy 533 to Jct Hwy 540	23.00	1,750	3	4
4	22:10 and 22:12	D	Jct Hwy 540 to Jct Hwy 541	15.48	2,500	3	4
5	22:12	D	Jct Hwy 541 to Jct Hwys 7 & Hwy 22	18.33	3,500	3	4
6	22:12	C	Jct Hwys 7 & 22 to Turner Valley North Limits	8.17	5,500	3	4
7	22:12	D	Turner Valley North Limits to Jct Hwys 22X & 22:14	26.31	3,500	3	4
8	22:14	C	Jct Hwys 22X & 22:12 to Jct Hwy 66:04 - HOT SPOT	19.67	6,500	1.5	2
9	22:14	C	Jct Hwy 66:04 to Cochrane Overpass	21.20	6,500	2	4
10	22X:02	B	Jct Hwys 22:12 & :14 to C.C.L.	12.98	11,000	2	4
11	8:06	A	Jct Hwy 22:14 to C.C.L.	16.58	15,500	2	4
12	66:02 & 66:04	D	Powderface to Jct Hwy 22:14	27.54	2,250	3	4
13	7:08	D	Jct Hwy 22:12, Jct Hwys 2:12 & 547:02	26.15	4,550	3	4
14	2A:04	B	Jct Hwy 23 to Jct Hwy 7:08	17.71	10,950	2	4
15	2A:06	A	338th Ave to Int. # 90 Jct Hwy 552	11.93	15,800	2	4
16	2A:08	A	Jct Hwy 2:15 to 194 ave (Calgary)	23.53	25,500	2	4
17	2:12	A	High River Overpass to DeWinton Int. including Int # 8A and Aldersyde [new]	72.08	16,950	2	4
18	2:15	A	Int. # 90 and Hwy 2:15 to Jct Hwy 2A:08 - HOT SPOT	9.42	35,500	1	1.5
19	2:10	B	Jct Hwy 533:02 to Jct Hwy 2:12	55.44	7,880	2	4
20	552:02	F	E.end DeWinton Int. to Hwy 799	26.48	580	4	8
21	799:02	G	Jct Hwy 23:08 to Jct Hwy 552:02	22.69	325	5	10
22	783:02	D	Jct Hwy 543:02 to Jct Hwy 7:08	11.30	1,850	3	4
23	543:02	D	Jct Hwy 22:12 to Jct Hwy 2A:04	24.82	3,450	3	4
24	540:02	G	Jct Hwy 22:12 to 64th St	13.62	170	5	10
25	541:02	G	Jct Hwy 40:10 to Jct Hwy 22:12	43.24	420	5	10
26	546:02	E	I.D. Boundary to Jct Hwy 22:12	15.16	1,420	3	6
27	549:02	E	Quirk Creek Gas Plant to Jct Hwy 22:12	14.02	1,096	3.5	6
28	762:02 & 758:02	D	Jct Hwy 549 to Jct Hwy 22	26.97	1,970	3	4
29	773:02	E	Jct Hwy 549 to Jct Hwy 22X:02 C.C.L.	17.38	1,140	3	6
30	549:04	E	Jct Hwy 22 to Jct Hwy 2A:06 (Okotoks)	25.72	1,500	3	6
31	552:01	E	Jct Hwy 549 NW of Okotoks to Jct Hwy 2A:08	12.83	1,140	3	6
32	533:02	G	Jct Hwy 22 to Jct Hwy 2:10	37.60	360	5	10
33	540:02	G	64th St to Jct Hwy 2:10 NBL	18.92	170	5	10
34	533:04	G	Jct Hwy 2:10 to Jct Hwy 804	19.33	400	5	10
35	547:02	F	Jct Hwy 2:12 to Jct Hwy 24	34.95	800	4	8
36	804:02	G	Jct Hwy 533(E) to Jct Hwy 23	24.13	250	5	10
37	West of Hwy 546 in I.D. 5	F	Blue Rock Day Use to ID Boundry	23.20	550	4	8
38	23:08	D	Jct Hwy 24 to Jct Hwy 2A:04	45.68	3,665	3	4
39	Park Rds. B.D.	G	Various Areas	7.12	250	5	10
40	Park Rds. E.F.	F	Various Areas	4.20	500	4	8
99	CMA Cross Over	N/A	Cross over into other CMA	0.00			
			Total	901.82			

U. WINTER SERVICE DELIVER (WSD) PLAN - BASE CASE

The Department has established a “Base Case” Winter Service Delivery (WSD) Plan for each CMA included in this RFP as a benchmark. The Base Case uses the existing maintenance shop and stockpile locations, with the number of trucks actually in use in the current contract.

The Prospective Contractor is encouraged to reference the base case model when calculating and preparing his WSD Plan. To assist the Prospective Contractor with this task, the Department has included the base case in both electronic and written form in the RFP package. The electronic version is provided in an Excel spreadsheet. This spreadsheet indicates the level of service that the Department expects the Prospective Contractor to meet or exceed overall, but not necessarily meet or exceed in every category or every section of Highway.

A second Excel spreadsheet file, similar to the base case spreadsheet (minus the base case data), has also been included in the RFP Package. The Prospective Contractor shall use this spreadsheet file to complete his WSD Plan. The "Winter Service Delivery – Details" document outlines the procedures to complete the Winter Service Delivery spreadsheet. The Department will provide individual assistance to Prospective Contractors upon request.

V. WSD SNOWPLOWING - TIME TO COMPLETE REQUIREMENTS

In the Prospective Contractor’s WSD Plan, details of the storage location for snowplow trucks must be provided.

Based on those locations, the Prospective Contractor must calculate the time to complete snowplowing of all the highway Sections, within the proposed Contract area boundaries, and include the results in his WSD Plan. The requirements must be met in each case.

Details of how the calculation is performed are available in the “Winter Service Delivery – Details”.

Shown below are the requirements for completion of snowplowing for each Section.

Section	Road/Hwy	Class	Max Allowed Time (hrs)
1	22:08	E	1.5
2	22:08	E	3
3	22:10	E	3
4	22:10 and 22:12	D	3
5	22:12	D	3
6	22:12	C	3
7	22:12	D	3
8	22:14	C	1.5
9	22:14	C	2
10	22X:02	B	2
11	8:06	A	2

Section	Road/Hwy	Class	Max Allowed Time (hrs)
12	66:02 & 66:04	D	3
13	7:08	D	3
14	2A:04	B	2
15	2A:06	A	2
16	2A:08	A	2
17	2:12	A	2
18	2:15	A	1
19	2:10	B	2
20	552:02	F	4
21	799:02	G	5
22	783:02	D	3
23	543:02	D	3
24	540:02	G	5
25	541:02	G	5
26	546:02	E	3
27	549:02	E	3.5
28	762:02 & 758:02	D	3
29	773:02	E	3
30	549:04	E	3
31	552:01	E	3
32	533:02	G	5
33	540:02	G	5
34	533:04	G	5
35	547:02	F	4
36	804:02	G	5
37	West of Hwy 546 in I.D. 5	F	4
38	23:08	D	3
39	Park Rds. B.D.	G	5
40	Park Rds. E.F.	F	4

All hours are to be reported to the second decimal place of accuracy.

W. SAND/SALT APPLICATION - WSD TIME REQUIREMENTS

In the Prospective Contractor's WSD Plan, details of the storage locations for snowplow trucks and winter materials must be provided.

Based on those locations, the Prospective Contractor must calculate the time to complete the application of sand and salt on all the highway Sections, within the proposed Contract area boundaries, and include the results in his WSD Plan. The requirements must be met in each case.

Details of how the calculation is performed are available in the supplemental document "Winter Service Delivery – Details".

Shown below are the requirements for completion of sand/salt application for each Section.

Section	Road/Hwy	Class	Max Allowed Time (hrs)
1	22:08	E	1.5
2	22:08	E	6
3	22:10	E	4
4	22:10 and 22:12	D	4
5	22:12	D	4
6	22:12	C	4
7	22:12	D	4
8	22:14	C	2
9	22:14	C	4
10	22X:02	B	4
11	8:06	A	4
12	66:02 & 66:04	D	4
13	7:08	D	4
14	2A:04	B	4
15	2A:06	A	4
16	2A:08	A	4
17	2:12	A	4
18	2:15	A	1.5
19	2:10	B	4
20	552:02	F	8
21	799:02	G	10
22	783:02	D	4
23	543:02	D	4
24	540:02	G	10
25	541:02	G	10
26	546:02	E	6
27	549:02	E	6
28	762:02 & 758:02	D	4
29	773:02	E	6
30	549:04	E	6
31	552:01	E	6
32	533:02	G	10
33	540:02	G	10
34	533:04	G	10
35	547:02	F	8
36	804:02	G	10
37	West of Hwy 546 in I.D. 5	F	8
38	23:08	D	4
39	Park Rds. B.D.	G	10
40	Park Rds. E.F.	F	8

All hours are to be reported to the second decimal place of accuracy.

X. SNOWPLOW TRUCK ALLOCATION REQUIREMENTS

All Prospective Contractors are required, in their WSD Plan, to identify the length of every snowplow truck beat. The snowplow beats must be identical for sanding, salting and snowplowing.

“Truck Allocation” for each snowplow truck is defined as a percentage of actual beat length divided by it’s maximum length of beat, as defined within the RFP.

Prospective Contractors, in their WSD Plan (Proposed Plow Truck Table), must show the lengths of beat of each snowplow truck and calculate its “Truck Allocation”.

Shown below is a table of maximum lengths of individual snowplow truck beat assignments. Also, specified in the table is the maximum “Truck Allocation”.

Class	Truck Factor for		Number of Trucks	
	This CMA	20 (Base)	19	18 (Min #)
A	30	30	31	32
B	34	34	35	37
C	35	35	37	39
D	36	36	38	40
E	47	47	49	52
F	82	82	83	88
G	92	92	92	94
H	104	104	104	104

**ADDITIONAL OPERATORS
REQUIRED IN THIS CMA**

5.00

The Prospective Contractor, within his WSD Plan, may exceed 100% Truck Allocation, only as shown on the following table:

Maximum Truck Allocation by Roadway Class		
Class	Permissible percentage of fleet with Truck Allocation Percentage > 1.0, by CMA	Max. Truck Allocation Allowed
A	1 truck or 10 %, whichever is less	1.05
B	1 truck or 10 %, whichever is less	1.10
C	2 trucks or 20 %, whichever is less	1.10
D - H	3 trucks or 30 %, whichever is less	1.15

If the Prospective Contractor proposes to “over-allocate” trucks, he shall identify within his WSD Plan in Envelope No. 2 his plan and explanation justifying the over-utilization Section or groups of Sections.

Y. CUMULATIVE NETWORK TIME REQUIREMENTS

The Prospective Contractor, in his WSD Plan, is asked to calculate the total cumulative time to complete both snow plowing and sand/salting of all sections in each roadway class or groups of classes, within the proposal.

All hours are to be reported to the second decimal place of accuracy.

Shown below is a table indicating the maximum cumulative time to complete snowplowing and sand/salting application activities:

Plow Cumulative time by class									
Class	A	B	C	D	E	F	G	H	
Total Time	5.56	5.46	2.48	13.94	15.47	11.55	25.83		

Spread Cumulative time by class									
Class	A	B	C	D	E	F	G	H	
Total Time	6.85	6.50	3.32	17.67	16.84	15.83	31.81		

Depending on the number of CMAs that the Prospective Contractor proposes for the Contract, cumulative times by roadway class must be combined as shown in the following table:

Permissible Cumulative Network Class Time, in Multiple CMAs'	
No: of CMAs in Proposal	Permissible Cumulative Times
1	Combine Classes A, B & C Combine Classes D & E Combine Classes F & G & H
2	Combine Classes A, B & C Combine Classes D & E Class F has individual times Combine Classes G & H
3 or more	Combine Classes A, B & C Classes D & E & F have individual times Combine Classes G & H

The Prospective Contractor must group the Classes according to this table and must not exceed the permissible cumulative network class time for the groupings.

Z. CO-ORDINATION WITH THE PREVIOUS MAINTENANCE CONTRACT

The Department owns or may have access to some sand/salt storage sites, which may include inventory of materials existing at commencement of the Contract.

If necessary, the Department will negotiate with the Contractor, details of any required relocation of materials in consultation with the existing highway maintenance Contractor. If there are surplus stockpiles of mixed sand/salt and or salt from the 2006/2007 winter season, the Contractor shall arrange for the transfer of this material to his site by August 30, 2006. This will be paid for as Extra Work.

AA. ANNUAL HIGHWAY CLEAN-UP

On the first or second Saturday in May, the Department hosts the "Annual Highway Clean-up". The Contractor will be responsible for erecting clean-up signs, disbursement of bags, vests and signs to local clubs and for the pick-up and disposal of litter bags. The Department will supply all materials. It is expected that filled litter bags will be picked up promptly on the day of the clean-up so that the litter bags do not become a hazard or distraction to the motoring public.

There will be no separate payment made to the Contractor for time spent in the erection of signs and disbursements of bags, vests and signs to local clubs. These activities are considered part of Highway Maintenance Work.

Separate payment will be made only for the pick-up and disposal of filled litter bags. All labour and pickup trucks supplied to perform the pick-up and disposal of litter bags will be paid for at the unit prices bid for "Supply of Labourer (Miscellaneous Work)" and "Supply of Truck (Miscellaneous Work)".

Any additional items or larger equipment required to dispose of the litter bags will be paid as Extra Work in accordance with Specification 51.2.28.

Alberta Infrastructure and Transportation will provide information to the Contractor as to which sections of highway are going to be cleaned and by which groups. A proposed list of employees, truck unit numbers and Highway sections they will be responsible for, shall be compiled by the Contractor for review by the Department prior to the day of the clean-up.

The Maintenance Contract Inspectors will approve the list of employees or ask for alternates as reasonably available. There will be a minimum of one qualified truck operator per work unit. All work units will be manned for the duration of the working period. Work hours will be between the hours of 8.00 a.m. and 5.00 p.m.

BB. MOWING AND TRIMMING

The contractor may be required to utilize smaller mowing equipment for work in urban areas where there are median/ditch width restrictions, special landscaping and underground irrigation, trees, shrubs, and other barriers/obstacles located within the right-of-way. The use of specialized equipment shall be incidental to the work and no separate or additional payment will be made.

In CMA 27 the typical mowing rotation is a 15 foot (4.6m) shoulder cut in late June. Trimming on this shoulder cut will include all Stop signs, all Guideposts, and Guard Rail. Fall mowing consists of some full right of way cut, some 30 foot and some 15 foot cuts. For the fall mowing, all trimming is required on all signs, guard rail, guide posts, culvert ends and overpass side slope not accessible to the mowers.

In addition to the above, there are typically 2 to 3 mowings that will be required along the irrigation canals each year. Specialized equipment may be required for this work due to the canal's steep banks and rock rip-rap. All equipment used for mowing along irrigation canals must be approved by the Engineer prior to commencement of the Work. Payment will be made at the unit price bid per hectare for "Mowing Canals with Specialized Equipment" and will be full compensation for all labour, equipment, tools, materials and incidentals necessary to complete the Work.

CC. BRUSH CUTTING

CMA 27 requires brush cutting of trees and willows up to the diameter of 6" [six inches] to improve the site distance around corners and approaching signs to eliminate hazards to the traveling public. Generally, this work is required in the ID and along 3 digit roads, but occasionally may be used on 1 and 2 digit roads. All debris shall be removed and disposed of at an approved landfill site to the satisfaction of the Engineer. The equipment used for this work must provide a reasonable production rate and shall be approved by the Engineer prior to its use. A work zone shall be set up to protect motorists and the Contractor, whenever this work is being done.

Payment will be made at the unit price bid per hour for "Brush Cutting" and will be full compensation for all labour, equipment, tools, materials and incidentals necessary to complete the Work.

DD. ADMINISTRATION OF HAY AND NO SPRAY PERMITS

Alberta Infrastructure and Transportation allows the hay to be salvaged from within the right of way for the use of local landowners. Alberta Infrastructure and Transportation also issues "No Spray" permits which are used by farmers who do not want chemicals sprayed in the highway right of way as they grow organic produce adjacent to it. The Contractor will administer the application process for permits on behalf of Alberta Infrastructure and Transportation. The expectation is that the Contractor will perform the following tasks as part of the administration process.

- Issue permits in a fair and equitable manner. Provide completed permits to the district office on a weekly basis for Operations Manager signature.
- Track and record location and length of area assigned to permit holder.
- Ensure permit holder is following the permit.
- Contact permit holder if permit is not being adhered to.
- Submit a year end summary of permits to Alberta Infrastructure and Transportation by September 1 annually.

A separate bid item called “Administer Hay and No Spray Permits” has been included in the Unit Price Schedule to cover the cost of this work. Individual payment will be made for each permit administered.

EE. PAYMENT OF LIGNOSULPHONATE SOLUTION

The payment for the use of Lignosulphonate used for dust control will be based on the tonnes of product in solution applied to the road surface. The solution will consist of 50% Lignosulphonate concentrate and 50% water. For the purposes of converting litres of solution to tonnes of product, 900 litres of the above solution will be considered to weigh 1 tonne.

FF. EMERGENCY SIGN PACKAGE

The Department requires 2 emergency sign packages owned by the Department to be stored free of charge by the contractor at sites approved by the Engineer.

Due to the number of responses to accidents and requirements for traffic accommodations, it has been found practical to have the emergency sign package ready for immediate use. Whenever necessary, the Contractor shall erect the emergency sign packages within 2 hours of the issuance of the Work Order on all Highways.

The type of sign package required at the specified location is as follows:

- Aldersyde area 1- Multi lane package
- West Calgary area 1- Two lane package

GG. TOLL FREE NUMBER – SIGNAGE AND LOGGING OF CALLS

The Contractor shall ensure that the Contractor's name and toll free number is displayed on a 4' x 8' sign located on the side slope of every one and two digit highway entering into the contract area. The signs shall be manufactured on 3/4" plywood or extruded aluminum and the sheeting and sign supports shall be in accordance with the Alberta Transportation Recognized Products list for non-standard signs. Lettering and symbols shall be clear and legible and of the required retro-reflectivity. Minimum lettering size is to be 200 mm. The Contractor must receive approval from the Engineer regarding the sign design prior to manufacturing.

All signs are to be installed within three months of the commencement date of the contract.

The Contractor shall record all calls made to the toll free number and provide the Department with a log of these calls on a monthly basis. As a minimum, the monthly log shall include the following information for each call:

- date and time of the call,
- the name and phone number of the caller,
- the highway(s) number in question
- a description of the caller's concern(s) and/or question(s),

- a description of the Contractor's response/ resolution regarding the call.

The Contractor will be responsible for all costs associated with the toll free number, including supply and installation, maintenance, removal and replacement of signs; and for the recording and logging of all calls.

HH. MATERIAL CONVERSION FACTOR

Where the application of conversion factors is necessary, the following standards values shall be used:

- The conversion factor for pit-run, crushed granular material and ACP (uncompacted) 1.632 tonnes per cubic meter
- The conversion factor for sand 1.365 tonnes per cubic meter
- The conversion factor for ACP(compacted) 2.330 tonnes per cubic meter
- The conversion factor for fine, medium or coarse salt 1.281 tonnes per cubic meter

II. LOCATIONS AND TELEPHONE NUMBERS OF CONTACT PERSONNEL

The Department will issue the Contractor with a listing of all applicable contact personnel, complete with addresses and telephone numbers. This list may include but not be limited to local representatives of:

- Motor Transport and Inspection Services
- Alberta Infrastructure and Transportation, Regional Staff
- Alberta Infrastructure and Transportation, Property Management Staff
- Alberta Environment
- Counties and Municipal Districts
- Towns and Villages
- Royal Canadian Mounted Police
- National Park Service (If Applicable)
- Indian Reserves
- Railways

JJ. ROAD BANS

The Contractor will be required to complete all signing for imposing and lifting of road bans with very little notice. This work will be paid for at the applicable unit prices without any additional payment due to the reduced times to complete.

Highways 540:02 and 773:02 are banned at 75% year round and usually require patching. For pavement patching, payment for haul will be made at the unit price bid for "Haul - Banned Road" and will be full compensation for all costs incurred, including costs associated with adjusting the load at the site to make the weights legal. Measurement of haul distances will be made in accordance with Specification 55.2, Hauling.

KK. SEEDING OF DISTURBED AREAS

Any areas disturbed by the Contractor's forces during the execution of this contract shall be seeded. The grass seed shall be of a composition acceptable to Alberta Sustainable Resource Development. There shall be no separate or additional payment for this work.

LL. INLAID DURABLE THERMOPLASTIC MARKINGS

Inlaid durable thermoplastic markings shall meet the requirements of Specification 53.22, Durable Pavement Markings. The depth of milling for inlaid durable thermoplastic markings shall meet the manufactures' recommended procedures for the type of markings being installed.

Payment will be made at the unit price bid per square metre for "Inlaid Durable Pavement Marking, Thermoplastic - Supply and Install". Such payment will be full compensation for inspecting the work areas, milling the pavement surface, supplying and applying the thermoplastic material, cleaning the worksite after installation, and all labour, materials, equipment, tools and incidentals necessary to complete the work.

MM. REMOVAL OF SURFACE APPLIED MARKINGS

When requested by the Engineer, the Contractor shall remove existing surface applied markings using methods and equipment that will totally eliminate the pattern of the messages without significantly damaging the integrity of the pavement surface. The methods and equipment used for such work shall be subject to the prior approval of the Engineer. Obliterating incorrectly painted messages through the sole use of paint, liquid asphalt, slurry seal or other similar materials will not be permitted.

Payment will be made at the unit price bid per square metre for "Removal of Surface Applied Markings". Such payment will be full compensation for all labour, materials, equipment, tools and incidentals necessary to complete the work.

NN. ENVIRONMENTAL MANAGEMENT OF MAINTENANCE FACILITIES

Priority Designations

All maintenance facility sites identified in the Prospective Contractor's proposal that are owned, or were at any time previously owned, by the Government of Alberta which were designated as Low Priority Sites (Priority Three) by the Joint Environmental Committee are now designated as Medium Priority Sites (Priority Two). Designations for maintenance facility sites listed as High Priority or Medium Priority have not changed.

All new maintenance facility sites identified in the Prospective Contractor's proposal, which have never been owned at any time by the Government of Alberta, shall include documentation demonstrating the priority designation warranted as described in Section 2, 'Introduction' of the "Environmental Management Plan Guidelines for Highway Maintenance Yards" document included in the RFP.

No maintenance facility site will be designated as Low Priority.

Maintenance Facilities Previously Owned by the Government of Alberta and New Sites Proposed by the Contractor

The Contractor shall complete an Environmental Management Plan for each site previously owned, at any time, by the Government of Alberta or any new site proposed by the Contractor. The Environmental Management Plan shall comply with the requirements of the “Environmental Management Plan Guidelines for Highway Maintenance Yards” document included in the RFP.

The provisions of the Environmental Management Guidelines Highway Maintenance Yards document may require significant improvements or other work to existing sites to achieve environmental compliance. Also, the Environmental Management Plan Guidelines for Highway Maintenance Yards document includes separate requirements for sites designated as either “High Priority”, “Medium Priority” or “Low Priority”. The location of any sites previously owned by the government in this CMA may be obtained from the Department Operations Manager. The cost of any such work shall be at the Contractor’s expense and no separate or additional payment will be made.

The Environmental Management Plan must be acceptable to the Department and shall be completed by September 1, 2006.

After September 1, 2006 a penalty of \$1000 per site per month will be applied for any site that does not have an approved Environmental Management Plan. The penalty will increase to \$2000 per site per month after Jan 1, 2007 for any site that does not have an approved Environmental Management Plan. These penalties will be prorated for lateness of a partial month.

The Contractor shall operate the site in accordance with all applicable environmental legislation, the Environmental Management Plan Guidelines for Highway Maintenance Yards and the approved Environmental Management Plan during the term of the Contract.

Groundwater Quality Monitoring Program

The Prospective Contractor shall include provisions for a groundwater quality monitoring program in his Environmental Management Plan for all maintenance facility sites identified in his proposal.

Each site shall include a minimum of three monitoring wells. One well shall be located hydraulically up-gradient of the site and two wells hydraulically down-gradient of the site. At Medium Priority Sites one of the down-gradient wells shall be located immediately down-gradient from the run-off collection pond. The wells shall be designed to allow collection of groundwater samples from the uppermost water bearing formation to a maximum depth of 50 metres. If no groundwater is encountered in the first 50 metres of drilling then groundwater monitoring wells will not be required for that site.

The Contractor shall arrange for an initial sampling of chloride and sodium concentrations as soon as groundwater levels have stabilized after installation of the wells. Subsequent sampling and analysis shall be done on a semi annual basis in conjunction with the maintenance facility inspections specified below. All groundwater sampling and analysis shall be done by an independent and qualified engineering consulting firm registered with A.P.E.G.G.A. All results of groundwater analysis shall be provided to the Department in triplicate.

All costs associated with installation, maintenance and sampling of groundwater monitoring wells shall be at the Contractor's expense and no separate or additional payment will be made.

Alberta Infrastructure and Transportation may request supplementary water samples and analysis from groundwater monitoring wells of any particular site in addition to the frequency specified above. Any such additional samples requested by the Department will be paid for as Extra Work in accordance with Specification 51.2, General for Maintenance Work.

Inspections

The Contractor shall arrange for semi annual inspections at each maintenance facility site included in the Contract to determine compliance with Environmental Management Plans. One inspection shall be scheduled during the summer season (July - August) and the other during the winter season (January - February). All inspections shall be conducted by an independent and qualified engineering consulting firm registered with A.P.E.G.G.A.

The Contractor shall provide the Department with three copies of the Consultant's written report detailing results of the inspection within a maximum of two weeks following completion of the inspection. All costs associated with maintenance facility inspections shall be at the Contractor's expense and no separate or additional payment will be made.

Each occurrence of non-compliance with an Environmental Management Plan will be a demeritable offence. If any one requirement of an Environmental Management Plan is identified in the Consultant's inspection report as being in non-compliance the Department will assess the Contractor one demerit point for that site. The Contractor shall promptly correct the deficiency(s) to bring the site into compliance with the Environmental Management Plan and shall arrange for a follow-up inspection.

These inspections do not preclude Alberta Environment or Environment Canada from assessing fines for a site that is not in compliance with the applicable legislation as identified in Section 4, 'Objectives', of the Environmental Management Plan Guidelines for Highway Maintenance Yards document included in the RFP.

Alberta Infrastructure and Transportation and Alberta Environment reserve the right to conduct any additional investigations deemed necessary to ensure compliance with Environmental Management Plans and Lease Agreements. Any requirements of an Environmental Management Plan found to be in non-compliance from such investigations will also be considered a demeritable offence.

OO. CONTRACTOR PERFORMANCE RATING SYSTEM

The Department has worked with the industry to develop a system for rating performance of Maintenance Contractors. This system is described in the "Procedures for Maintenance Contract Performance Measures" document, a copy of which directly follows the Special Provisions section.

The Contractor shall provide the Department all the necessary documentation so that the Department can properly assess the Contractors performance. Missing documentation will impact the Contractor's performance rating. The Department will measure the Contractor's performance on an annual basis from April 1 to March 31 the following year. During partial years, the Department will only measure Contractor performance on the relevant items.

There shall be no direct financial penalties applied to the Contractor due to Performance Rating, other than default of the Contract in extreme circumstances. However, the Department may use the performance ratings as a scoring component for evaluation of future proposal submissions. The performance rating system should also be seen as a tool to assist the Contractor in improving his overall performance throughout the term of the contract. The Department expects that the Contractor will be diligent in assuring that poor performance is promptly corrected, and improvement is reflected in the next performance rating.

The Department reserves the right to revise the Maintenance Contract Performance Measures System during the term of the contract. Any proposed changes will be communicated to the Contractor for review and input.

PP. QUALITY ASSURANCE PROGRAMS

The Contractor shall adhere to the quality assurance tables included in the "Procedures for Maintenance Contract Performance Measures" document, a copy of which directly follows the Special Provisions section. When the Department audits for specification conformance, traffic accommodation shall be included as part of the audit.

QQ. MIKE RADIO SYSTEM

General

In accordance with Specification 51.2.39, the Department will reimburse the Contractor for his monthly network service charges for mobile radio communications. Currently the Department has an agreement with Telus Mobility to provide this service under the MiKE System (Work 65 plan). The Work 65 plan is the standard on which payment is based, however the Contractor can choose other plans at his discretion. Telus Mobility will invoice the Contractor directly, and the Department will reimburse the Contractor as specified herein.

The Department covers the monthly service plan costs and the networking and licensing costs under this agreement for the following components of the Contractor's maintenance fleet: one radio for each snow plow truck (including each spare truck); one for each grader, foreman vehicle, and superintendent vehicle; and an additional six radios per Contract Maintenance Area.

The Contractor is responsible for all other costs including installation, maintenance and removal of radios, early termination charges, local airtime costs exceeding that provided for under the plan, long distance charges and for other services such as wide area, roaming, wireless web and value added services. The Department does not cover any costs for radios not approved under the contract terms as described above, however non-approved radios can draw from the minute pool up to the total monthly allotment.

Summer Deactivations

The Contractor will be allowed to deactivate MiKE radios in the summer months that are solely used for winter maintenance activities. These dormant units will be placed on a "Vacation Disconnect" status by Telus Mobility for a minimum of one month, and will not extend past the term of the agreement. There will be no reactivation fees charged to the contractors under this program. For the months that the units are on vacation disconnect, these months will be considered as part of the term for each MiKE contract, and will not be deferred to the back end of the contract. The Contractor shall notify the Operations Manager on which units have been deactivated.

Notwithstanding the foregoing, all MiKE radios approved under the contract terms shall be active from September 15 to May 15, inclusive, of each year.

Naming Convention

A maximum of 30 characters is permitted for MiKE radio user names. To distinguish between radios approved by the Department under the terms of the contract and non-approved radios a standard "User Name" convention has been established. This naming convention shall be strictly adhered to.

The first nine characters will follow the standards specified herein. These characters will be used to identify Department approved radios and the CMA's from which they are based. The remaining 21 characters allowed are at the Contractor's discretion. It is suggested that the Contractor use these characters to further identify the radio by shop location or vehicle unit number.

Example: **AT-CMA06-HighPrairie1** (AI&T approved radio)
 MC-CMA06-HighPrairie8 (Maintenance Contractor non-approved radio)

Payment

The Department will reimburse the Contractor for the monthly service plan costs and the networking and licensing costs of approved radios. This will be facilitated through Bid Item 4450, MiKE Radios, of the unit price schedule. This bid item will provide the set monthly price per radio for which payment will be based. This price, multiplied by the approved number of radios under the contract will be the total monthly payment made to the Contractor.

The unit price established for bid item 4450 is \$62.45/radio/month, and is based on the following criteria:

\$65.00 (monthly access fee) less \$9.75 (15% TELUS Mobility discount) + \$6.95 (system licence fee) + \$0.25 (911 fee) = \$62.45 per month per MiKE radio.

The quantity shown in the unit price schedule is approximate only and is based on the Department's minimum requirements for winter service delivery. Payment will be made on the actual number of approved MiKE Radios.

Payment will be made for all approved radios each and every month including those deactivated during summer months. This bid item is exclusive of price adjustments due to inflation, unless mutually agreed to otherwise. Any increase or decrease to the Work 65 Plan rate made by Telus Mobility, including changes to discount percentages, will be reflected in the monthly unit price specified herein.

RR. INTRODUCING NEW TECHNOLOGIES AND PROCESSES

The Department intends to make continual improvements to the planning and administration processes of highway maintenance contracts. The Department anticipates that initiatives such as the Road Weather Information Systems (RWIS), the pro-active use of de-icing chemicals (anti-icing and liquid de-icing applications), improvements to how work orders and crew work sheets are issued and submitted, and increased requirements for environmental protection of the lands along the right-of-way will be introduced during the term of the Contract. The introduction of new technologies and processes by the Department does not prevent the Contractor from submitting other innovation proposals as described in specification 51.2.20 Innovation.

The Department is committed to working with the Contractor to manage the changes resulting from these innovations so that the costs and risks are shared by all parties. As a rule, the department will:

- cost share the capital costs for new technologies, with the actual values to be negotiated on a case by case basis,
- work in partnership with the contracting industry to develop training aids, standards and reporting systems to support the new technologies and processes,
- phase in the introduction of new technologies and processes to allow the contracting industry time to manage the subsequent changes in each company's internal processes,
- cost share the additional costs of training and inspections needed to give the field staff the tools to use new technologies and processes efficiently, and
- jointly review the results of the new technologies and processes for further improvements and modifications.

The successful contractor is expected to:

- willingly participate in planning, implementing and reviewing new technologies and processes,
- pay internal costs for such things as wages, travel and increased record keeping associated with these initiatives.

- make changes to his own internal organization, training programs, equipment management system, documentation and management practices to accommodate the initiative at no cost to the Department, and
- ensure that his employees are taking full advantage of the new technology or process.

SS. MAINTENANCE CONTRACT MANAGEMENT SYSTEM

The Department uses a Maintenance Contract Management System to track and order Work as well as prepare payments to the Contractor.

To improve upon the efficiency of handling maintenance information, the Contractor is required to supply the Department with an electronic data interchange format of highway maintenance records. In addition the Contractor is also required to have the ability to receive Work orders from the Engineer via e-mail and fax.

The Contractor is required to transfer highway maintenance records through an FTP-process to a secure directory on the Department's Server. The file will be placed on the server for the Engineer to receive and review.

The transfer file is created in a fixed position, ASCII compatible flat file "text" format. Each Electronic Data Interchange file should be viewable with a product such as Microsoft Windows NOTEPAD.EXE program. The format requirements for each file can be found in the Alberta Infrastructure and Transportation "Electronic Data Interchange Specifications" document. The Department will make this document available to the Contractor upon request. The Contractor will be responsible for all costs associated with software upgrades or development to their existing system so that they can interface with the Department's system.

The current Maintenance Contract Management System is 9 years old, and during the term of the Contract the Department will be looking into replacing the system to meet the Department's current and future needs. The Department will be looking at a web based system that will allow for work identification, planning, ordering and tracking as well as payment processing. The Contractor will be required to switch over to the new system after it has been developed. In addition the Contractor will also be responsible for all costs associated with software upgrades or development to their existing system so that they can interface with the Department's system.

TT. GENERAL LIABILITY INSURANCE PREMIUM

To reduce the Contractor's risk with respect to rising insurance premiums, the Department has included a bid item in the Unit Price Schedule for a yearly lump sum General Liability Insurance Premium. In this bid item, the Contractor shall provide his anticipated yearly premium that will be required to maintain valid General Liability Insurance for the amount of Work required under this CMA, and for the limits specified in specification 51.2.12 (a) of the Standard Specifications for Highway Maintenance, Edition 4, January 2005.

Prior to execution of the Contract, the Contractor shall provide the Engineer with a certified true copy of the insurance policy along with the actual premium cost to meet the General Liability Insurance requirements under the terms of the Contract. The actual annual cost of the General

Liability Insurance shall closely reflect the annual cost identified in the Unit Price Schedule. Any significant variations shall be explained to the satisfaction of the Department.

The General Liability Insurance Premium will be considered a Fixed Cost item in the Contract and will not be subject to the annual inflationary adjustments. Instead, the Department will adjust the premium on an annual basis to reflect the actual increases in premiums that, in the opinion of the Minister, is no fault of the Contractor; or a reduction in premiums, as the case may be. Upon verification of the Contractor's actual General Liability Insurance Premium, the Department will make a lump sum yearly payment. Partial years will be prorated accordingly.

The Department reserves the right to provide the Contractor with General Liability Insurance coverage for work done under this contract. Should the Department provide this coverage, then the insurance requirement under 51.2.12 (a) will be waived by the Department. In such cases, the Department will not make payment to the Contractor for the General Liability Insurance Premium.

UU. FROST PROBE DRAWING

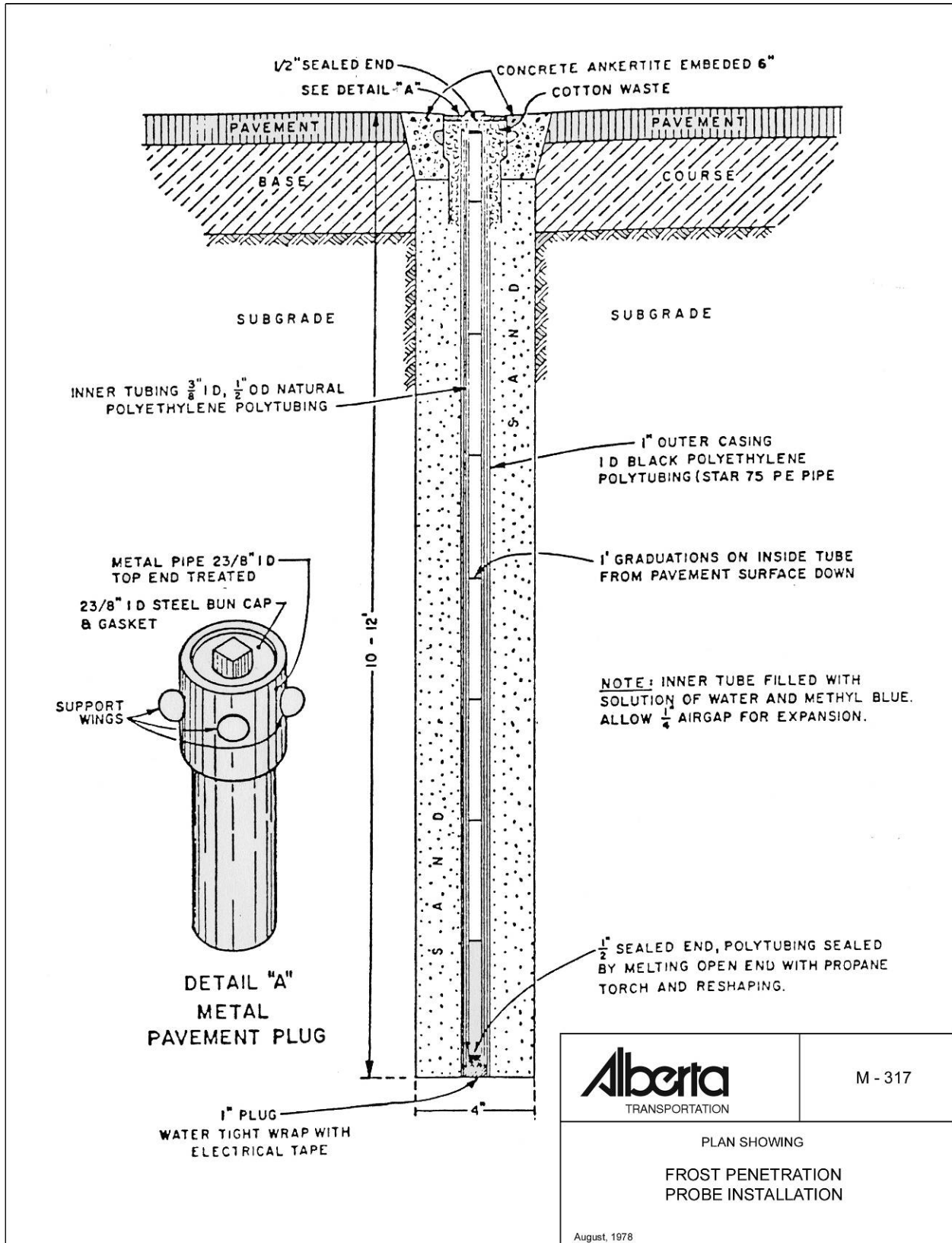


TABLE OF CONTENTS

A. AMENDMENTS TO SPECIFICATION 54.12, SUPPLY OF PERMANENT HIGHWAY SIGNS 1

B. AMENDMENTS TO SPECIFICATION 51.2.12, INSURANCE 1

C. AMENDMENT TO SPECIFICATION 51.2.23, DEFAULT 1

D. AMENDMENT TO SPECIFICATION 52.1.7, AVAILABILITY RATES..... 2

A. AMENDMENTS TO SPECIFICATION 54.12, SUPPLY OF PERMANENT HIGHWAY SIGNS

- i. The title of Subsection 54.12.2.1 'Reflective Sheeting for Select Permanent Highway Signs', of Section 54.12.2 'Materials', is replaced with:

"Specialized Reflective Sheeting for Select Permanent Highway Signs".

- ii. The last paragraph in Subsection 54.12.2.1 'Specialized Reflective Sheeting for Select Permanent Highway Signs' is replaced with the following:

"Sheeting material products meeting the minimum coefficient of retro-reflectivity requirements, as specified above, are listed on the Alberta Transportation Products List."

- iii. In Subsection 54.12.6.2 'Supply of Standard Signs', of Section 54.12.6 'Measurement and Payment', all references to: "with 3M Diamond Grade (VIP) reflective sheeting", are replaced with the following:

"(Specialized Reflective Sheeting for RA-1, RA-2, RB-22 & RB-23 Signs)"

B. AMENDMENTS TO SPECIFICATION 51.2.12, INSURANCE

- i. In the first line of Item (a) the term "Comprehensive Liability" is replaced with "*General Liability*".

- ii. The following clause is inserted directly after Item (b):

(c) In the event the Contractor is responsible for operating and maintaining a Department owned ferry, its approach ramps and the general site area, including launching the ferry in the spring and dry docking it in the fall; Marine Protection and Indemnity insurance in an amount of not less than five million dollars (\$5,000,000) per occurrence to cover claims arising in connection with the ferry operation.

- iii. In the second last paragraph the amount of insurance specified for subcontractors is increased from "two million dollars (\$2,000,000)" to "*five million dollars (\$5,000,000)*".

C. AMENDMENT TO SPECIFICATION 51.2.23, DEFAULT

Item (i) of Subsection (a) "1 demerit point to a Contractor who:" in Specification 51.2.23.1, 'Causes and Notice', is replaced with following:

- (i) Fails to prosecute the Work with sufficient skilled workers and equipment or with sufficient Material to ensure the prompt completion of the Work within the maximum allotted time on more than 20% of the total value of the Work that was scheduled for completion over a 3 month period or other time period, as specified by the Engineer. In calculation of the value of the work, indirect costs will be excluded.*

In addition to the above, if a Contractor fails to complete work that exceeds 15%, but is less than or equal to 20%, of the total value of the Work scheduled for completion over a 3 month period or other time period, as specified by the Engineer, then the Department's representative may apply a financial penalty of \$5,000 without issuance of a demerit point. No prior written notice of a non-demeritable financial penalty is required prior to the penalty being applied. Non-demeritable financial penalties may only be applied a maximum of twice per fiscal year.

Non-demeritable financial penalties will not be applied when lateness of the total value of work exceeds 20%. In such cases, only the financial penalties specified in Section 51.2.23.4, Penalties for Unsatisfactory Performance, will apply.

The Contractor may appeal application of a non-demeritable financial penalty to the Regional Director.

D. AMENDMENT TO SPECIFICATION 52.1.7, AVAILABILITY RATES

The following paragraph is inserted after the first paragraph of Section 52.1.7.3, Operators:

Also, Operator Availability will be paid for one operator for each sub-contractor truck engaged by the Contractor to meet the terms of the Contract, and which is available to work during the availability period. An additional or second operator provided by a sub-contractor for his truck(s) will not be included for Operator Availability payment.

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
Activity 1100 Snow Removal and Ice Control					
1101	52.1 SP	Single Axle Sander/Plow Truck	Nil no. of trucks	per hour	(see NOTE below)
1102	52.1 SP	Tandem Axle Sander/ Plow Truck - 8.5 m ³ and Smaller	no. of trucks	per hour	(see NOTE below)
1103	52.1 SP	Tandem Axle Sander/ Plow Truck - Larger than 8.5 m ³ and Less than 13 m ³	no. of trucks	per hour	(see NOTE below)
1112	52.1 SP	Large Capacity Sander/ Plow Truck - 13 m ³ and Larger	no. of trucks	per hour	(see NOTE below)
<p align="center">NOTE: Extension values for Bid Items 1101, 1102, 1103 & 1112 must be calculated as follows: $Qty \text{ (no. of trucks bid)} \times Unit Price \times (307) = Extension$ <small>Avg. Annual Hrs</small></p>					
1104	52.1 SP	Snowplow Wings (minimum 13 wings)	3 991.0 hours	per hr	
1105	52.1	Snow Removal and Ice Control (Truck) Availability Rate (total number of trucks x 180 days)	total days	\$105.000 per day	
1115	52.1	Snow Removal and Ice Control (Operator) Availability Rate (equal to total number of trucks + 5 additional operators x 180 days)	total days	\$105.000 per day	
1106	52.1	Snow Removal and Ice Control (Truck) Indoor Heated Storage Premium (total number of trucks for 180 days)	total days	\$35.000 per day	
1107	52.2	Snow Removal (Loader)	8.0 hours	per hour	
1108	52.2	Snow Removal (truck)	Nil hours	per hour	
1109	52.2	Snow Removal - Premium	1.0 occurrences	per occurrence	
1110	SP	Snow Removal (Snow Blower)	Nil hours	per hour	
1111	SP	Pre-Wetting Systems (Minimum of 18 systems)	5 526.0 hours	per hr	
1116	SP	Underbody (belly) Plows	Nil hours	per hr	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
Activity 1200		Snow Removal and Ice Control (Grader)			
1201	53.27	Motor Grader Work on Gravel Surface Roads	739.0 hours	_____ per hour	_____
1202	53.27	Snow Removal and Ice Control on Paved Surfaces (Grader)	61.0 hours	_____ per hour	_____
1203	SP	"V" Plow Attachment	10.0 hours	_____ per hour	_____
Activity 1300		Snow Fencing			
1301	52.3 SP	Snow Fence - Supply and Install	1 400.0 metres	_____ per metre	_____
1302	52.3	Snow Fence - Remove	1 400.0 metres	_____ per metre	_____
1303	52.3	Snow Fence - Reinstall	Nil metres	_____ per metre	_____
Activity 1400		Ice Control Materials			
1401	52.5	Sodium Chloride Treated Sand - Mix and Stockpile	23 600.0 tonnes	_____ per tonne	_____
1402	52.6	Calcium Chloride Treated Sand - Mix and Stockpile	Nil tonnes	_____ per tonne	_____
1403	52.7	Sand - Pick Up and Stockpile	Nil tonnes	_____ per tonne	_____
1404	52.7	Sand - Pick Up, Process, and Stockpile	Nil tonnes	_____ per tonne	_____
1405	55.2	Haul (for Pickup and Stockpile or Pickup, Process and Stockpile)	Nil tonne.kms	_____ per tonne.km	_____
<i>NOTE: Must enter location, quantity and unit price for Supply and Stockpile of Sand</i>					
1410	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
1411	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
1412	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
1413	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
1414	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
1415	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
1416	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
1417	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
1418	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
1419	52.7	Sand - Supply and Stockpile To: _____	_____ tonnes	_____ per tonne	_____
For Analysis Only		Total Quantity of Supply and Stockpile Sand Must Equal 23 600 tonnes as Per S.P.	_____ total tonnes		
1450	SP	Chips for Gravel Roads – Supply and Stockpile	<u>1 000.0</u> tonnes	_____ per tonne	_____
1469	55.4	Supply of Aggregate	<u>24 600.0</u> tonnes	<u>\$1.250</u> per tonne	<u>\$30,750.00</u>
<i>NOTE: Must enter location, quantity and unit price for Supply of Salt</i>					
1470	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
1471	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
1472	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
1473	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
1474	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
1475	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
1476	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
1477	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
1478	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
1479	52.8	Sodium Chloride (salt) - Supply To: _____	_____ tonnes	_____ per tonne	_____
For Analysis Only		Total Qty of Supply Sodium Chloride (salt) Must Equal 3 570 tonnes as Per S.P.	_____ total tonnes		
1490	SP	Supply of Salt Brine for Pre-Wetting	160 000.0 litres	_____ per litre	_____
Activity 1500 Subgrade Excavation (non paved surfaces)					
1501	53.1	Excavation	250.0 cubic metres	_____ per cubic metre	_____
1502	53.1	Backfill with Salvaged Material	16.0 cubic metres	_____ per cubic metre	_____
1503	53.2	Pit Run Gravel - Supply and Place	43.0 cubic metres	_____ per cubic metre	_____
1504	53.2	Pit Run Gravel - Pick Up and Place	120.0 cubic metres	_____ per cubic metre	_____
1505	53.3	Granular Base Course - Supply and Place	3.0 cubic metres	_____ per cubic metre	_____
1506	53.3	Granular Base Course - Pick Up and Place	50.0 cubic metres	_____ per cubic metre	_____

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
1507	55.4	Supply of Aggregate	46.0 cubic metres	\$2.040 per cubic metre	\$93.84
1508	55.2	Haul	22 480.0 m ³ .kms	per m ³ .km	
Activity 1600 Crack Sealing					
1601	53.4	Crack Sealing	185 000.0 metres	per metre	
1602	53.5	Crack Routing and Sealing	100.0 metres	per metre	
1603	53.4 53.5	Crack Sealing - Blotting	Nil metres	per metre	
Activity 1700 Apply Surface Seals					
1701	53.6	Asphalt Pavement Surface Seal - Liquid Asphalt	Nil square metres	per square metre	
1702	53.7	Asphalt Pavement Crack Repair - Spray Patch	1 500.0 metres	per metre	
1703	53.7	Asphalt Pavement Surface Repair - Spray Patch	1 500.0 square metres	per square metre	
Activity 1800 Pot Hole Patching					
1801	53.10	Pot Hole Patching ASBC/ACP	15 704.0 kg	per kilogram	
1803	53.10	Pot Hole Patching Proprietary Mix	36 862.0 kg	per kilogram	
Activity 1900 Surface Patching					
1901	53.13	Asphalt Concrete Pavement (Paver) - Pick Up and Place	100.0 tonnes	per tonne	
1902	53.13	Asphalt Concrete Pavement (Machine) - Pick Up and Place	25.0 tonnes	per tonne	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
1903	53.13	Asphalt Concrete Pavement (Hand) - Pick Up and Place	1.0 tonnes	per tonne	
1904	53.13	Emergency Patch - Pick Up and Place	Nil tonnes	per tonne	
1905	53.13	Asphalt Concrete Pavement Patching (Paver) - Supply and Place (Mix Type 5 or Similar)	1 500.0 tonnes	per tonne	
1906	53.13	Asphalt Concrete Pavement Patching (Paver) - Supply and Place (Mix Type 8 or Similar)	Nil tonnes	per tonne	
1907	53.13	Asphalt Concrete Pavement Patching (Machine) - Supply and Place (Mix Type 5 or Similar)	48.0 tonnes	per tonne	
1908	53.13	Asphalt Concrete Pavement Patching (Machine) - Supply and Place (Mix Type 8 or Similar)	Nil tonnes	per tonne	
1909	53.13	Asphalt Concrete Pavement Patching (Hand) - Supply and Place (Mix Type 5 or Similar)	10.0 tonnes	per tonne	
1910	53.13	Asphalt Concrete Pavement Patching (Hand) - Supply and Place (Mix Type 8 or Similar)	Nil tonnes	per tonne	
1911	53.13	Asphalt Stabilized Base Course Patching (Machine) - Supply and Place	1 253.0 tonnes	per tonne	
1912	53.13	Asphalt Stabilized Base Course Patching (Hand) - Supply and Place	4.0 tonnes	per tonne	
1913	53.13	Proprietary Mix Patching (Machine) - Supply and Place	Nil tonnes	per tonne	
1914	53.13	Proprietary Mix Patching (Hand) - Supply and Place	25.0 tonnes	per tonne	
1915	53.13	Emergency Patch - Supply and Place	1.0 tonnes	per tonne	
1916	53.13 55.2	Haul	165 091.0 tonne.kms	per tonne.km	
1917	55.4	Supply of Aggregate (for ACP and ASBC only)	2 865.0 tonnes	\$1.250 per tonne	\$3,581.25

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
1918	53.13	Surface Patching Price Adjustment - Single Patch (25t plus)	288.0 tonnes	per tonne	Credit to Dept.
1919	53.13	Surface Patching Price Adjustment - 100 tonnes	Nil tonnes	per tonne	Credit to Dept.
1920	53.13	Surface Patching - Premium	1.0 occurrence	per occurrence	
1921	53.13	Surface Patching - Interim Premium	1.0 occurrence	per occurrence	
1922	SP	Haul - Banned Road	10 000.0 tonne.kms	per tonne.km	
Activity 2000 Asphalt Surface Treatment					
2001	53.9	Asphalt Surface Treatment - Patching	Nil square metres	per square metre	
2002	53.9	Asphalt Surface Treatment - Minor Repair	Nil square metres	per square metre	
2003	53.9	Asphalt Surface Treatment - Major Repair	10 000.0 square metres	per square metre	
2004	53.9	Asphalt Surface Treatment - New Construction	Nil square metres	per square metre	
2005	53.27	Motor Grader Work - Preparing Gravel Surface (same unit price as bid item 1201)	Nil hours	per hour	
2006	53.29	Spot Gravelling - Supply and Place	Nil cubic metres	per cubic metre	
2007	53.29	Spot Gravelling - Pickup and Place	Nil cubic metres	per cubic metre	
2008	53.30	Gravel Surfacing - Supply and Place	Nil tonnes	per tonne	
2009	53.30	Gravel Surfacing - Pickup and Place	1 000.0 tonnes	per tonne	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
2010	55.2	Haul	60 000.0 tonne.kms	per tonne.km	
2011	55.2	Haul	Nil m³.kms	per m³.km	
2012	55.4	Supply of Aggregate	Nil tonnes	\$1.250 per tonne	
2013	55.4	Supply of Aggregate	Nil cubic metres	\$2.040 per cubic metre	
2014	53.9	Supply of Asphalt for Surface Treatment	70.0 tonnes	per tonne	
2015	53.9	Asphalt Surface Treatment - Premium	Nil occurrence	per occurrence	
2016	53.9	Asphalt Surface Treatment - Interim Premium	Nil occurrence	per occurrence	
Activity 2100 Deep Patch					
2101	53.14	Asphalt Pavement Deep Patching - Pickup and Place	Nil square metres	per square metre	
2102	53.14	Asphalt Pavement Deep Patching - Supply and Place	15.0 square metres	per square metre	
2103	55.4	Supply of Aggregate	25.0 tonnes	\$1.250 per tonne	\$31.25
2104	55.2	Haul	1 952.0 tonne.kms	per tonne.km	
2105	53.14	Deep Patching - Premium	Nil occurrences	per occurrence	
2106	53.14	Deep Patching - Interim Premium	Nil occurrences	per occurrence	
Activity 2200 Roadway and Raised Median Cleaning					
2201	53.17	Roadway Cleaning Broom	271 879.0 square metres	per square metre	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
2202	53.17	Roadway Cleaning - Pickup Broom	84 843.0 square metres	per square metre	
2203	53.17	Raised Medians Cleaning	1 315.0 square metres	per square metre	
2204	53.17	Roadway Cleaning - Premium	1.0 occurrences	per occurrence	
2220	SP	Cleaning Concrete Barriers (NJ barriers)	Nil lineal metre	per lineal metre	
Activity 2300 Line Painting					
2301	53.20	Supply of Paint - White	22 187.0 litre	per litre	
2302	53.20	Supply of Paint - Yellow	19 654.0 litre	per litre	
2303	53.20	Painted Roadway Lines - White	619.0 line kms	per line km	
2304	53.20	Painted Roadway Lines - Yellow	512.0 line kms	per line km	
2305	53.20	Line Painting - Premium	Nil occurrences	per occurrence	
2306	53.20	Line Painting - Intersections	277.0 sides	per side	
2307	53.20	Line Painting - Interchanges	4.0 interchanges	per interchange	
2308	53.20	Painted Roadway Lines - White - Single Line Ordered	Nil line kms	per line km	
2309	53.20	Painted Roadway Lines - Yellow - Single Line Ordered	46.0 line kms	per line km	
2310	53.20	Supply of Waterborne Paint - White	9 508.0 litre	per litre	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
2311	53.20	Supply of Waterborne Paint - Yellow	8 423.0 litre	per litre	
2312	53.20	Painted Roadway Lines - White (Waterborne)	265.0 line kms	per line km	
2313	53.20	Painted Roadway Lines - Yellow (Waterborne)	219.0 line kms	per line km	
2314	53.20	Painted Roadway Lines - White (Waterborne) - Single Line Ordered	Nil line kms	per line km	
2315	53.20	Painted Roadway Lines - Yellow (Waterborne) - Single Line Ordered	Nil line kms	per line km	
Activity 2400 Pavement Markings					
2401	53.21	Painting Pavement Markings	2 223.0 square metres	per square metre	
2402	53.21	Painting Pavement Markings - Premium	Nil occurrences	per occurrence	
2403	53.22	Durable Pavement Marking, Tape - Supply and Install	Nil square metres	per square metre	
2404	53.22	Durable Pavement Marking, Thermoplastic - Supply and Install	135.0 square metres	per square metre	
2405	53.24	Raised Pavement Markers - Supply and Install	Nil each	per each	
2406	53.24	Raised Pavement Marker Reflectors - Supply and Replace	Nil each	per each	
2407	SP	Inlaid Durable Pavement Marking, Thermoplastic - Supply and Install	50.0 square metres	per square metre	
2408	SP	Removal of Surface Applied Markings	135.0 square metres	per square metre	
Activity 2500 Grading Gravel Surfaces					
2501	53.27	Motor Grader Work on Gravel Surface Roads (same unit price as bid item 1201)	820.0 hours	per hour	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
Activity 2600		Regravelling			
2601	53.29	Spot Gravelling - Supply and Place	54.0 cubic metres	per cubic metre	
2602	53.29	Spot Gravelling - Pickup and Place	235.0 cubic metres	per cubic metre	
2603	53.29	Spot Gravelling - Premium	Nil occurrences	per occurrence	
2604	55.4	Supply of Aggregate	54.0 cubic metres	\$2.040 per cubic metre	\$110.16
2605	55.2	Haul	5 902.0 m ³ .kms	per m ³ .km	
2606	53.30	Gravel Surfacing - Supply and Place	3 500.0 tonnes	per tonne	
2607	53.30	Gravel Surfacing - Pickup and Place	6 500.0 tonnes	per tonne	
2608	55.4	Supply of Aggregate	3 500.0 tonnes	\$1.250 per tonne	\$4,375.00
2609	55.2	Haul	400 000.0 tonne.kms	per tonne.km	
Activity 2700		Dust Abatement			
2702	53.31	Dust Abatement, Calcium Chloride - Supply and Apply	Nil flake.tonnes	per tonne	
2703	53.31	Dust Abatement, EDS Material - Supply and Apply	Nil tonnes	per tonne	
2704	53.31	Dust Abatement, Lignosulphonate - Supply and Apply	Nil tonnes	per tonne	
Activity 2800		Maintenance of Livestock Guards			
2801	53.33	Livestock Guard - Clean and Inspect	44.0 metres	per metre	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
2802	53.33	Livestock Guard - Inspect	14.0 metres	per metre	
2803	53.34	Livestock Guard - Supply Range Type	3.9 metres	per metre	
2804	53.34	Livestock Guard - Supply Standard Highway Type	19.0 metres	per metre	
2805	53.34	Livestock Guard - Supply Off Highway Type	Nil metres	per metre	
2806	53.35	Livestock Guard - Repair Metal Sections	18.0 hours	per hour	
2807	53.35	Livestock Guard - Repair Wooden Sections	20.0 hours	per hour	
2808	53.35	Livestock Guard - Install Complete	20.0 hours	per hour	
2809	53.35	Livestock Guard - Premium	Nil occurrences	per occurrence	
Activity 2900 Provide Traffic Control					
2901	53.36	Erect and Remove Emergency Sign Package	3.0 hours	per hour	
2902	53.37	Supply Flagperson, Signs and Vehicle	137.0 hours	per hour	
2903	53.37	Supply Flagperson	79.0 hours	per hour	
2904	53.38	Supply of Truck Mounted Arrowboard - Mobile	33.0 hours	per hour	
2905	53.38	Supply of Truck Mounted Arrowboard - Stationary	38.0 hours	per hour	
2906	53.38	Supply of Trailer Mounted Arrowboard	38.0 hours	per hour	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
2914	53.38	Supply of Truck Mounted Dynamic Message Sign - Mobile	Nil hours	per hour	
2915	53.38	Supply of Truck Mounted Dynamic Message Sign - Stationary	Nil hours	per hour	
2916	53.38	Supply of Trailer Mounted Dynamic Message Sign	136.0 hours	per hour	
2907	53.37 53.38	Traffic Control - Premium	12.0 occurrences	per occurrence	
Activity 3000		Inspections			
3001	53.39	Highway Maintenance Work	12.0 months	per month	
3002	53.39	Additional Road Inspections	3 920.0 kilometres	per kilometre	
3003	53.39	After Hours Callout	25.0 occurrences	per occurrence	
3004	53.39	Haul of Roadkill	525.0 kilometres	per kilometre	
3007	55.6	Supply of Labourer (Miscellaneous Work)	10.0 hours	per hour	
3008	55.6	Supply of Truck (Miscellaneous Work)	10.0 hours	per hour	
Activity 3100		Milled Rumble Strips			
3101	53.41	Milled Rumble Strips	Nil kilometres/side	kilometre/side	
3102	53.41	Milled Rumble Strips for No-Passing Zones	Nil kilometres	per kilometre	
3103	53.41	Milled Rumble Strips for Stop Conditions	2.0 sets	per set	
Activity 3200		Mowing			

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
3201	54.1	Mowing	1 855.0 hectares	per hectare	
3202	55.6	Supply of Labourer (Miscellaneous Work) (same unit price as bid item 3007)	40.0 hours	per hour	
3203	55.6	Supply of Truck (Miscellaneous Work) (same unit price as bid item 3008)	40.0 hours	per hour	
3230	SP	Brush Cutting	100.0 hours	per hour	
3231	SP	Mowing Canals with Specialized Equipment	125.0 hectares	per hectare	
3277	SP	Administer Hay Permits & No Spray Permits	10.0 each	per each	
Activity 3300 Chemical Vegetation Control					
3301	54.4	Vegetation Control - Mobile Spray (On Road)	155.0 hectares	per hectare	
3302	54.4	Vegetation Control - Mobile Spray (Off Road)	23.0 hectares	per hectare	
3303	54.4	Vegetation Control - Mobile Spot Spray (On Road)	117.0 hectares	per hectare	
3304	54.4	Vegetation Control - Mobile Spot Spray (Off Road)	45.0 hectares	per hectare	
3305	54.4	Mobile Spray - Premium	1.0 occurrences	per occurrence	
3306	54.4	Vegetation Control - Hand Spray	100 000.0 square metres	per square metre	
3307	54.4	Hand Spray - Premium	Nil occurrences	per occurrence	
3308	55.6	Supply of Labourer (Miscellaneous Work) (same unit price as bid item 3007)	10.0 hours	per hour	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
3309	55.6	Supply of Truck (Miscellaneous Work) (same unit price as bid item 3008)	10.0 hours	per hour	
Activity 3400 Culvert Maintenance					
3401	54.5	Steaming Culverts	38.0 hours	per hour	
3402	54.6	Cleaning Culvert Barrel - Up To 800mm Diameter	7.0 metres	per metre	
3403	54.6	Cleaning Culvert Barrel - over 800mm but less than 1500mm Diameter	Nil metres	per metre	
3404	54.6	Cleaning Culvert Barrel - 1500mm Diameter and over	Nil metres	per metre	
3405	54.6	Cleaning Culvert Ends	2.0 each	per each	
3406	54.6	Culvert Cleaning - Premium	Nil occurrences	per occurrence	
Activity 3500 Culvert Installation/Rehab/Replacement					
3501	54.8 54.9	Culverts - Excavation and Backfill	111.0 cubic metres	per cubic metre	
3502	54.8	Culverts - Remove and Dispose	16.0 metres	per metre	
3503	54.8 54.9	Centre-Line Culvert - Traffic Control	5.0 metres	per metre	
3504	54.8	Culvert Removal Premium	1.0 occurrences	per occurrence	
3506	54.9	Culverts Install - Corrugated Metal Pipe - 500 mm - Nominal Diameter	Nil metres	per metre	
3507	54.9	Culverts Install - Corrugated Metal Pipe - 600 mm - Nominal Diameter	28.0 metres	per metre	
3508	54.9	Culverts Install - Corrugated Metal Pipe - 800 mm - Nominal Diameter	14.0 metres	per metre	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
3509	54.9	Culverts Install - Corrugated Metal Pipe - 900 mm - Nominal Diameter	Nil metres	per metre	
3510	54.9	Culverts Install - Corrugated Metal Pipe - 1200 mm - Nominal Diameter	Nil metres	per metre	
3511	54.9	Culverts Install - Corrugated Metal Pipe - 1500 mm - Nominal Diameter	Nil metres	per metre	
3512	54.9	Culverts Install - Corrugated Polyethylene Pipe 525 mm - Nominal Diameter	Nil metres	per metre	
3513	54.9	Culverts Install - Corrugated Polyethylene Pipe 600 mm - Nominal Diameter	Nil metres	per metre	
3514	54.9	Culverts Install - Corrugated Polyethylene Pipe 750 mm - Nominal Diameter	Nil metres	per metre	
3515	54.9	Culverts Install - Corrugated Polyethylene Pipe 900 mm - Nominal Diameter	Nil metres	per metre	
3516	53.2	Pit-Run Gravel - Supply and Place	Nil cubic metres	per cubic metre	
3517	53.2	Pit-Run Gravel - Pick Up and Place	215.0 cubic metres	per cubic metre	
3518	53.3	Granular Base Course - Supply and Place	Nil cubic metres	per cubic metre	
3519	53.3	Granular Base Course - Pick Up and Place	87.0 cubic metres	per cubic metre	
3520	53.13	Asphalt Concrete Pavement (Mix Type 5 or Type 8) Patching (Grader) - Produce and Place	Nil tonnes	per tonne	
3521	53.13	Asphalt Concrete Pavement (Mix Type 5 or Type 8) Patching (Grader) - Pick up and Place	Nil tonnes	per tonne	
3522	55.4	Supply of Aggregate	Nil tonnes	\$1 250 per tonne	
3523	55.4	Supply of Aggregate	Nil cubic metres	\$2.040 per cubic metre	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
3524	55.2	Haul	14 000.0 tonne.kms	per tonne.km	
3525	55.2	Haul	Nil m ³ .kms	per m ³ .km	
3526	54.9	Culvert Installation - Premium	Nil occurrences	per occurrence	
3528	54.10	Culvert End Repair - Using Hand Tools	Nil each	per each	
3529	54.10	Culvert End Repair - Using Equipment	Nil each	per each	
Activity 3600 Maintaining Signs					
3601	54.12	Standard Signs 0.27 square metres and under - Supply	51.0 square metres	per square metre	
3602	54.12	Standard Signs 0.28 to 0.45 square metres - Supply	3.0 square metres	per square metre	
3603	54.12	Standard Signs 0.46 to 0.56 square metres - Supply	4.0 square metres	per square metre	
3604	54.12	Standard Signs 0.57 to 1.44 square metres - Supply	13.0 square metres	per square metre	
3605	54.12	Standard Signs 1.45 square metres and Over - Supply	2.0 square metres	per square metre	
3606	54.12	Extra Prints	12.0 each	per each	
3607	54.12	Non Standard Signs - 3/4" Plywood - Supply	10.0 square metres	per square metre	
3608	54.12	Non Standard Signs - Extruded Aluminum - Supply	2.0 square metres	per square metre	
3609	54.13	Sign Posts - Wooden, 100mm x 100mm (or equivalent) - Supply and Install	Nil each	per each	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
3610	54.13	Sign Posts - Wooden, 100mm x 150mm (or equivalent) - Supply and Install	267.0 each	per each	
3611	54.13	Sign Posts - Wooden, 150mm x 200mm (or equivalent) - Supply and Install	Nil each	per each	
3612	54.13	Wooden Sign Posts (or equivalent) - Remove and Reinstall	2.0 each	per each	
3613	54.13	Wooden Sign Posts (or equivalent) - Remove and Dispose	2.0 each	per each	
3614	54.13	Install Sign - Less than 1 square metre	374.0 each	per each	
3615	54.13	Install Sign - 1 to 3 square metres	36.0 each	per each	
3616	54.13	Install Sign - Over 3 square metres	5.0 each	per each	
3617	54.13	Remove Sign - Less than 1 square metre	29.0 each	per each	
3618	54.13	Remove Sign - 1 to 3 square metres	2.0 each	per each	
3619	54.13	Remove Sign - Over 3 square metres	1.0 each	per each	
3620	54.13	Breakaway Steel Posts - W150 x 14 - Supply and Install	1.0 each	per each	
3621	54.13	Breakaway Steel Posts - W200 x 15 - Supply and Install	Nil each	per each	
3622	54.13	Breakaway Steel Posts - W150 x 22 - Supply and Install	4.0 each	per each	
3623	54.13	Breakaway Steel Posts - W200 x 27 - Supply and Install	Nil each	per each	
3624	54.13	Breakaway Steel Posts - Remove and Reinstall	4.0 each	per each	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
3625	54.13	Breakaway Steel Posts - Remove and Dispose	Nil each	per each	
3626	54.13	Concrete Base - Supply and Install	2.0 each	per each	
3627	54.13	Concrete Base - Remove and Reinstall	2.0 each	per each	
3628	54.13	Concrete Base - Remove and Dispose	Nil each	per each	
3629	54.13	Cluster Frames - Supply and Install	15.0 square metres	per square metre	
3630	54.13	Wind Frame - Supply and Install	Nil square metres	per square metre	
3631	54.13	Reinforcing Girts - Supply and Install	Nil metres	per metre	
3632	54.12 54.13	Banding of Signs	40.0 each	per each	
3633	54.13	Sign on Overhead Sign Structure or Bridge Structure - Install	Nil square metres	per square metre	
3634	54.13	Sign on Overhead Sign Structure or Bridge Structure - Remove	Nil square metres	per square metre	
3635	54.12	Standard Signs 0.27 square metres and under (Specialized Reflective Sheeting for RA-1, RA-2, RB-22 & RB-23 Signs) - Supply	66.0 square metres	per square metre	
3636	54.12	Standard Signs 0.28 to 0.45 square metres (Specialized Reflective Sheeting for RA-1, RA-2, RB-22 & RB-23 Signs) - Supply	Nil square metres	per square metre	
3637	54.12	Standard Signs 0.46 to 0.56 square metres (Specialized Reflective Sheeting for RA-1, RA-2, RB-22 & RB-23 Signs) - Supply	Nil square metres	per square metre	
3638	54.12	Standard Signs 0.57 to 1.44 square metres (Specialized Reflective Sheeting for RA-1, RA-2, RB-22 & RB-23 Signs) - Supply	Nil square metres	per square metre	
3639	54.12	Standard Signs 1.45 square metres and Over (Specialized Reflective Sheeting for RA-1, RA-2, RB-22 & RB-23 Signs) - Supply	Nil square metres	per square metre	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
3640	SP	Maintaining Welcome to Alberta Sign	Nil each	per each	
Activity 3800		Maintaining Guideposts			
3801	54.19	Flexible Guidepost - Supply and Install	638.0 each	per each	
3802	54.19	Flexible Guidepost - Remove and Reinstall	82.0 each	per each	
3803	54.19	Flexible Guidepost - Remove and Dispose	Nil each	per each	
3804	54.20	Wildlife Reflector Post - Supply and Install Wooden Post 2.13 m	4.0 each	per each	
3805	54.20	Wildlife Reflector Post - Supply and Install Steel Post 2.13 m	Nil each	per each	
3806	54.20	Wildlife Reflector - Supply and Install	7.0 each	per each	
Activity 3900		Maintaining Guardrail			
3901	54.22	Guardrail/ Barrier - Remove and Dispose	Nil metres	per metre	
3902	54.23	W-Beam Guardrail - Supply and Install	373.0 metres	per metre	
3903	54.23	Guardrail Posts 1.52 m Wooden - Supply and Install	91.0 posts	per post	
3913	54.23	Guardrail Posts 1.83 m Wooden - Supply and Install	Nil posts	per post	
3904	54.23	Guardrail Posts 2.13 m Wooden - Supply and Install	2.0 posts	per post	
3905	54.23	Guardrail Posts 1.9 m Metal - Supply and Install	Nil posts	per post	
3906	54.23	Guardrail Posts Plastic - Supply and Install	10.0 posts	per post	

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
3914	54.23	Strong Post Spacer Blocks – Supply	Nil each	per each	
3907	54.23	W-Beam Guardrail - Realigning	233.0 post	per post	
3908	54.23	W-Beam Guardrail - Resetting	49.0 post	per post	
3909	54.24	Box Beam Guardrail - Supply and Install	Nil metres	per metre	
3910	54.24	Box Beam Guardrail - Remove and Reinstall	Nil metres	per metre	
3911	54.24	Box Beam Guardrail Posts - Supply and Install	Nil posts	per post	
3912	54.23 54.24	Guardrail - Premium	Nil occurrences	per occurrence	
Activity 4000		Line Fence			
4001	54.29	Line Fence - Repair or Remove	20.0 hours/2 man crew	hour/2 man crew	
Activity 4100		Bridge Maintenance/ Rehabilitation/ Repair			
4101	54.30	Bridge Structure - Cleaning	28 000.0 square metres	per square metre	
Activity 4200		Beaver Control			
4201	54.34	Beaver Control	10.0 hours	per hour	
4202	55.6	Supply of Labourer (Miscellaneous Work) (same unit price as bid item 3007)	10.0 hours	per hour	
4203	55.6	Supply of Truck (Miscellaneous Work) (same unit price as bid item 3008)	10.0 hours	per hour	
Activity 4300		Highway Cleanup			

CMA 27
Unit Price Schedule

Bid Item	Spec.	Description	Qty	Unit Price	Extension
4301	52.2	Debris Removal - Loader	6.0 hours	per hour	
4302	52.2	Debris Removal - Truck	7.0 hours	per hour	
4303	52.2	Debris Removal - Premium	2.0 occurrences	per occurrence	
4310	55.6	Supply of Labourer (Miscellaneous Work) (same unit price as bid item 3007)	Nil hours	per hour	
4311	55.6	Supply of Truck (Miscellaneous Work) (same unit price as bid item 3008)	Nil hours	per hour	
Activity 4400		Miscellaneous			
4401	51.2.1 7	Contractor Indirect Operating Costs	12.0 month	per month	
4410	SP	General Liability Insurance Premium	Lump Sum	annual lump sum	
4450	SP	MiKE Radios	38.0 radios	\$62.450 per radio/month	\$28,477.20 (x 12 months)

Total Provisional Costs:	
Total Fixed Costs:	
Total Contract:	

LOCAL FEATURES

CMA 27

GUIDELINES FOR

**Black Diamond, Chain Lakes, Nanton, and Aldersyde
AREAS**

PROVIDED AS INFORMATION ONLY

A. TROUBLE SPOTS

The following areas will normally require special attention during winter storms:

- **Hwy 2:10 and 12:** Nanton – DeWinton Interchange: This is a four lane divided highway which goes through Nanton. There are spots along this section of roadway which have heavy commuter traffic. Also special attention is required to monitor the road condition through the town of Nanton especially at the crosswalks accessing the business district between the north and south bound lanes. Between Nanton and DeWinton Interchange there are 2 CPR overpasses which cause numerous problems in the winter storms. At the Junctions of 23:08 and Junction of 2A:06 of this section interchanges are located which also should be attended to first during winter storms. There is also an interchange scheduled to be constructed at the Junction of 7:08 and 547:02 that will require the same level of service. There are 8 bridges and 4 steep inclines along this section that cause major problems during storm incidents and require attention through-out each storm.
- **Hwy 2:15:** DeWinton Interchange to Junction 2A:08. This is a high traffic volume highway and a major truck route around the City of Calgary. DeWinton Interchange # 90 to Junction 2A:08 has 5 lanes in each direction and also has traffic from 2A:06 accessing it via interchange.
- **Hwy 2A:04:** This highway accesses the Cargill Foods Meat Plant and at shift changes, has a very high traffic volume, and also is accessed by large volumes of truck and trailer combination traffic.
- **Hwy 2A:08:** This is a high traffic volume, commuter route. There is a set of traffic signals at the Calgary City Limits that ice up quickly during a storm. There are 2 steep inclines through-out this section of highway that tend to ice up during storm incidents. The fly-over at 2:15 has Thrie-beam guardrail that traps snow on the road surface and requires immediate attention.
- **Hwy 2A:06:** This is a divided highway that has very high commuter traffic in both early morning and evenings.
- **Hwy 552:02:** This highway has a school located beside it and should be plowed before bus and student traffic start commuting.
- **Hwy 22:08:** Davis Hill is a major problem area during winter storm events. There is also 1 bridge deck and major intersection into a park within these limits.
- **Hwy 533:02:** Timber Ridge along this section is a very steep incline and requires regular attention.
- **Hwy 22:10 and 12:** There are 4 bridges along this section and there are 9 steep grades that have a tendency to ice during winter storm incidents. The Village of

Longview and Towns of Black Diamond and Turner Valley are within this section as well.

- **Hwy 22:14:** Priddis Fire Hall, Three Lane Hill, Slide Hill and School Bus Hill are the inclines that will require extra attention. Stop areas at Bragg Creek , Highway 8 and 22 and all Redwood Meadows intersections are high maintenance intersections.
- **Hwy 8:06:** There are traffic signals at 117th ave and a bridge over the Elbow River that are high maintenance areas. This is a high traffic volume highway with a large amount of truck traffic.

B. TYPICAL MAINTENANCE ISSUES

Guardrail

Guardrail in CMA 27 can be a problem during the winter months due to strong winds causing heavy drifting. Guardrail sections, especially within river valleys, off of bridge decks and on hills can be quite prone to accident damage. There are areas of new Thrie-Beam rail along 2A:08 that hold snow and may require removal with a loader after heavy winds or heavy snowfall incidents. This would require additional traffic control.

Severe Erosion

Several areas within the CMA due to the steepness of ditch gradients and underground springs are prone to erosion problems. Multiple slides can occur so special attention may be required to prevent damage to the infrastructure.

Slide areas

Within the western portion of the CMA three major slide areas are present. One on 549:02 at Quirk Creek, one on 762 at Fischer Creek and one that is equipped with drainage pumps on 22:14 at Priddis Creek Estates. The pumps at the Priddis Creek Estates slide are monitored daily until freeze-up, when the pumps are shut down until spring.

There are several other minor slide areas, especially along rock cuts, which may need cleaning from time to time.

C. Continual Surface Condition Problems

- **Hwy 773:** This is an oil based road that requires attention year round. There are pothole problems in the summer and icing problems in the winter. There are numerous steep grades along this section of highway. This highway has a 75% road ban all year. This road ban does not apply to plow trucks in the winter.

- **Hwy 540:** There is 18.8 kilometers of oil based road that requires attention year round. Surface condition is a constant problem. This highway has a 75% road ban all year. This road ban does not apply to plow trucks in the winter.

Culverts

The following is a list of culverts that generally require steaming regularly.

- Junction 22X:02 and 22:12/22:14
- 22:14 1 kilometer west of 22X:02
- 22:14 1 kilometer north of the junction 22:14 and 66:04
- 66:02 west of winter closure gates
- 66:04 at the junction of 758:02
- 66:04 11 kilometers west of the junction 22:14
- Powderface Trail 10 culverts each spring
- McLean Creek Trail 4 culverts each spring
- Gorge Creek Trail 2 culverts each spring
- 22:12 in the Village of Longview 2 culverts each spring
- 940:06 3 culverts each spring

There are beaver problems at a culvert on highway 8:06 at Twin Bridges that requires cleaning at least 2 times yearly.

Railway Crossings

There are 6 crossings that require daily monitoring throughout the year, and 2 that require weekly monitoring. The 6 are used daily by CP and 2 are used for car storage by CP.

Annual Road Closures

The following roads have annual road closures that must be monitored through out the length of the closures. Occasionally someone will need access and keys must be provide. These roads are closed from December 1 to various opening dates yearly.

- Forestry Trunk Road (formerly 940:06) from Cataract Creek to Flat Top Mountain
- Mclean Creek Trail from McLean Creek Campground to Fischer Creek Day Use Area.
- Sheep River Road from Sandy McNabb Campground west to the end.
- Gorge Creek Trail from Northfork Campground to Sandy McNabb Campground.
- Powderface Trail from Elbow Day Use Area to CMA boundary.
- 66:02 from Elbow Day Use Area to Powderface Trail.

C. SEVERE STORM EVENTS

CMA 27 can experience extreme wind storms in the more southern and western portions of the CMA and requires a plan to address such incidents as they occur. This would include communication with adjoining CMA's.

D. Work on Banned Roads

There will be times that work will be required on banned roads. This will require a work plan to haul the material to an appropriate site for stockpile and then haul to approved ban weights onto the road [usually 75%].

SAMPLE FORMS

CONTENTS

- **AMA ROAD REPORT**
- **AVAILABILITY BI-WEEKLY REPORT**
- **HIGHWAY INSPECTION FORM**
- **HIGHWAY WORK IDENTIFICATION GUIDELINES**
- **WINTER READINESS CHECKLIST**



SNOWPLOW TRUCK, LOADER & OPERATOR AVAILABILITY BI-WEEKLY REPORT

Shop _____ Foreman _____ Work Order No. _____ Week Ending _____

UNIT NUMBER	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	COMMENTS
Date															
No. of Operators															

Note, a checkmark indicates unit was available on noted day.

Foreman's Signature _____

CONTRACTOR NAME (LOGO)



Highway Work Identification Report

Date _____

CMA # _____

14

SHOP: TWO HILLS

CIRCUIT _____

PAVED ROADS
(Fill in details in comment Section)

Gravel/Oiled Roads

OTHER OBSERVATIONS (Fill in details in comment section)

Hwy	Identify Times of Inspection							(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(p)		
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Potholes	Surface Failures	Work In Progress	Blading Required	Work in Progress	Damaged Signs	Damaged Guardrail	Damaged Guide Posts	Drainage Problems	Erosion Problems	Large Debris in ROW	Beaver Dams	Non-Conforming Signs	Activity by Others	Misc. (Details Below)		
36:18																								
36:20																								
36:22																								
45:06																								
45:08																								
857:04																								
631:02																								
631:04																								
870:10																								
637:04																								
637:06																								
645:04																								

Comments - Please provide details to observation made (i.e. Location, description of damage etc)

Roads Inspected by: _____ (Printed Name) _____ (Signature)

The information shown on this report is based upon the last "known" conditions. Actual conditions may change from the time of which this report was generated.

Highway Work Identification Guidelines

Intent of Form

The intent of the form is to identify work that may be required to the highway infrastructure. The contents of the report will be based on the drive by day time inspections of the highway. The report is to be submitted to Alberta Transportation once a week or a frequency otherwise agreed to by the Department and the Contractor

Inspection Identification

Forms are to be modified by each District to include highway control sections contained within a given inspection beat, as agreed with the maintenance contractor.

Indicate the start time of inspection for each individual highway control section inspected in a defined beat.

Place a check mark in the Roads Checked column identifying which Highway sections were inspected. Person who conducted inspection are to print their name and sign the form before submitting it to Alberta Transportation.

If more than one person inspected the same road during the course of the week, the form should be signed off by those who conducted the inspections.

Check Boxes & Comments - General

For each Highway section, place check marks under the appropriate category for conditions observed during an inspection. **The first time a new condition is observed, a comment must be included in the comment section, detailing the observation. Comments need not be added for repeat observations of a condition, only for new occurrences.** Some specific considerations are included below.

Paved Roads

- (a) **Potholes** – to include all potholes on driving lanes and shoulders. Identify in comment section as to the severity of the problem. No need to count every pothole, just indicate the range. (I.e. 0-10 potholes, 10-50 potholes, 50 or more potholes)
- (b) **Surface Failures** – to include all pavement failures and breakouts exceeding pothole size. Clarify description of problem in comment section.
- (c) **Work in Progress** – check when maintenance contractor is undertaking surface work activities on paved highway. Identify activity in comment section.

Gravel/Oiled Roads

- (D) **Blading Required** – Check box when blading is required. Identify in comment section if spot gravelling is required in some locations.
- (E) **Work in Progress** – check when maintenance contractor is undertaking surface work activities on gravel highways. Identify activity in comment section.

Other Observations

Generally, identify details and locations of problems observed on the first inspection where identified, and simply include check mark where still existing on subsequent inspections.

- (F) **Damage Signs** – Check box if signs are damaged. (i.e., knock down, broken post, holes in signs, piece of sign missing, signs leaning) Report in comment section location of sign.
- (G) **Damage Guardrail** – Check box if guardrail is damaged. (I.e. broken posts, damaged rail) Report in comment section location of damaged guardrail.

- (H) Damage Guide Posts** – Check box for damaged guideposts. (I.e. knock down, missing reflector strip). Identify in comment section as to the severity of the problem. No need to count every guidepost, just indicate the range. (I.e. 0-10 guideposts, 10-50 guidepost, 50 or more guideposts).
- (I) Drainage Problems** – Check box if you note water being back up in ditch because of plugged culvert, or if you spot a collapse culvert. Also check if you noted a farmer has cultivated the bottom of the ditch. Only check once with reference in comment section, when first observed.
- (J) Erosion Problems** – Check if you note any side slope movement or any slides within or adjacent to the highway right-of-way. Also check if you note any serious erosion that has occurred within the right-of-way following a recent rain event or spring runoff. Only check once with reference in comment section, when first observed.
- (K) Large debris in ROW** - Check only when large debris is found in ROW, such as fridge's, tires, bags of garbage, etc.
- (L) Beaver dams** – Check off if beaver dams are located within or near highway right-of-way and are posing a hazard to the highway.
- (M) Non-Conforming Signs** – Check off box if you note any non-conforming signs placed up within the highway right-of-way that appear to be of a permanent nature. Identify location of sign(s) in comment section.
- (N) Activity by Others** – Check box if you note any activity such as utility & pipeline construction or any other development within or adjacent to the highway right-of-way. Identify activity and location in comment section.
- (O) Miscellaneous** – Indicate detail in comments section, i.e.) signal lights, litter bins, extreme weather conditions, etc.

Signature Line

To be signed by person that did the inspection and filled in the report.

Winter Readiness Checklist

The following checklist is to be filled out by the contractor and submitted to the Department Engineer prior to October 15 of each year.

DESCRIPTION	Yes/No
EQUIPMENT	
All snow plow units have a valid Alberta Vehicle registration or equivalent permit and a current commercial Vehicle Inspection Certification Decal.	
All snow plow units are ready to commence work at the start of the availability period.	
All snow plow units are equipped the number of wings, prewetting units and other accessories as identified in the contract requirements.	
All snow plow units are mechanically safe to operate	
All spread controls for each unit have been calibrated	
All power floats for each unit have been calibrated	
All Infrared Thermometers have been calibrated.	
AVLS Units are functioning properly	
Pre-wetting units are functioning properly	
Warning lights, flags & reflectors on all plow units have been checked for proper installation and alignment.	
All loaders are operational	
All graders used for gravel roads are equipped with an adequate set of blades, scarifier teeth, shanks and Sandvik blades and bits (System 2000) or equivalent.	
All graders are equipped with functioning headlights, tail lights, 4-way flashers, back-up alarm, revolving light, slow moving symbol and warning flags on the outward edges of the cab and moldboard.	
All graders are equipped with a functioning wing mounted on the right hand side.	
MATERIAL	
Sand and salt is stockpiled at all sites as per the work plan.	
Sand stockpiles at each site have been freeze proof as per the work plan.	
Pre-wetting chemical is stored at each site as per the work plan.	
OPERATORS	
All operators required under the contract are available to commence work at the start of the availability period.	
All new operators have received appropriate training	
Pre-winter safety meetings have been held for all operators	
Each operator has a valid operator's license	

Written clarification is required on any "No" response.

I certify that the information on this check list is correct.

Contractors Printed Name

Signature

Date



Procedures for Maintenance Contract Performance Measures

Commencing 2005 / 2006 Appraisal Year
MPMG Task Group

INTRODUCTION	1
TIMELINESS	2
SAFETY.....	5
Development of Safe Work Procedures System	5
Accident Reporting and Investigation Process	7
Conducting Health & Safety Work Site Meetings	8
Safety Pre-Commencement Meetings for Subcontractors	9
Traffic Accommodation for Work Zones.....	10
Emergency Communications	11
Winter Preparedness Operator Training	12
SPECIFICATION COMPLIANCE.....	13
Punitive Damages	14
Warranty and Specification Compliance	15
Highway Maintenance Work	16
Quality Assurance Plan.....	18
Universal “Quality Assurance Audit” Form.....	18
Snow Removal & Ice Control	19
Mix & Stockpile Salt Treated Sand	19
Supply & Stockpile Sand	20
Supply Sodium Chloride	20
Cracksealing	20
Crack, Rout & Seal	21
Selective Surface Seals	22
Transverse Crack Repair – Spray Patch	23
Pothole Patching.....	23
Asphalt Pavement – Surface, Patching & Deep Patching	24
Roadway & Raised Median Cleaning	24
Painted Roadway Lines	25
Pavement Messages	25
Grading Gravel Surfaces	26
Regravelling	26
Supply & Apply Dust Abatement.....	27
Emergency Sign Package, Supply, Flag Person, Signs, Vehicle Supply/Arrow Boards..	27
Highway Maintenance Work	28
Mowing.....	29
Vegetation Control	30
Supply of Signs & Supply / Install Posts	30
Work on Major Signs & Sign Structures	31
Supply & Install W-Beam Guardrail & Posts.....	31
Bridge Structure Cleaning.....	31
Environmental Management Plan (EMP) for Highway Maintenance Yards.....	32
Summary of Maximum Scoring for Maintenance Contract Performance Measures	34

Introduction

In 1998, a task group including members of Alberta Roadbuilders and Heavy Construction Association (ARHCA) and Alberta Infrastructure and Transportation (Trans) completed the initial “Maintenance Contractor Performance Measures” (CPM). Modifications have been made to CPM to update and improve the initial procedures. The updated procedures will come into effect commencing April 1, 2005.

This document attempts to clarify the processes and reduce any inconsistencies that exist in the practice of CPM. It is not intended to change either the “Spirit or Intent” of the original document.

Contractor Performance Measures has three components. This document clarifies procedures for all three components.

Timeliness

The intent of “timeliness” is to measure the Contractor’s performance of “keeping up with the work” and completing work on a timely basis. Timeliness will cover 40% of the Contractor’s overall score for performance measurement.

A computer report generated by Trans staff will calculate the number of days a work item is reported to be completed late, that is days beyond it’s “due” or “completion” date.

The total number of “Work Item Days Late” will be tracked throughout the year and reviewed with the Contractor on a monthly basis, to determine if the Contractor is “keeping up” to the work ordered.

One standard report format will be adopted provincially, to measure timeliness, incorporating the following features:

- Indirect Operating Costs will not be considered.
- No hourly work will be counted other than if the Contractor provides a proposal with a time frame.
- The Contract Procedures Manual will be updated, to ensure consistent procedure, for the recording of dates.
- Highway Maintenance Work will be removed.
- Winter Response time for snowplow trucks is not considered in timeliness.
- Emergency work will not be considered in timeliness.
- When the work is completed, the date recorded is the actual last day of work, not the default date or date set, initially generated when the work order was cut.
- No winter or snow and ice control activities will be included, in the measure except for Ice Control Materials – Sand Stockpiles
- Critical work orders will not be closed, until they are completed or the end of the fiscal year, whichever comes first.
- Non Critical work orders not completed on time and are greater than or equal to 80% complete may be requested by the contractor to be closed at the end of the season.
- Late Non Critical work order less than 80% complete will not be closed until the end of the fiscal year.
- To encourage prompt completion, if Critical Work Activities Items Days Late will be multiplied by a factor of two or ten depending on the activity prior to being added to the total Work Order Item Days Late variable in calculating the Contractor’s Work Order Timeliness score. The list of critical activities and their weighted factors are shown in “Table of Weighted Highway Maintenance Activities”.

At the end of the year, the total number of 'work item days' will be placed into an index calculation. The formula for calculation of the Contractor's Timeliness Score out of 40 is shown below:

$$\text{Contractor's W.O. Timeliness Score} = 40 \times \frac{\text{Total Number of "Work Order Item Days" in Contract} - \text{Work Order Item Days Late}}{\text{Total Number of "Work Order Item Days" in Contract}}$$

It is appropriate for the Maintenance Contract Inspector to determine if work is planned or discretionary in nature. The following definitions apply:

Planned Work: Work that is ordered in advance of its need, to meet the operational demands of the Department and scheduling is mutually agreed upon by both parties. Planned work may have permissible longer due dates agreed upon at the time the work order is issued. Typically the Contractor will have a "work plan" or "work schedule" and the planned work requirements are usually accommodated within the plan.

Reactionary Work: Work that is ordered in a "reactive situation" that occurs and is not foreseen or planned. This type of work is required to maintain overall service for the motoring public.

When the completion of the Work is delayed through no fault of the Contractor, the Contractor shall provide the Engineer with written notice of the existence of circumstances over which he has no control and which affects the completion of the work. The Engineer may, at his discretion, extend the completion date specified in the Work Order. Refer to Contract Administrative Manual for further guidelines to extending work orders.

If the amount of work has varied appreciably from the original plan (+ 20 %), then an additional Work Order for the supplemental, work will be issued. Completion dates may be adjusted when the contractor can verify that the increased work has impacted the completion dates of other work.

This procedure stresses the need for the Contractor and Maintenance Contract Inspector to work together co-operatively for identification and planning of the work, prior to issuance of the work order.

Issuance of work orders on Friday afternoon for reactionary work should be for emergency situations only.

Table of Weighted Highway Maintenance Activities

X 1 Factor (Non-Critical Activities)	X 2 Factor (Critical Activities)	X 10 Factor (Critical Activities)
Crack Sealing; Hot & Cold Pour Emulsion Crack Sealing; RACS Subgrade Excavation Subgrade Excavation-Subsurface Drain Fogging Surface Repair-Spray Patch Crack Repair-Spray Patch Asphalt Surface Treatment-Patching Asphalt Surface Treatment-Minor Repair Asphalt Surface Treatment-Major Repair Asphalt Surface Treatment-New Construction Deep Patching Sweeping Pick Up Sweeping Pavement Markings; Painted Pavement Markings; Thermoplastic Milled Rumble Strips Mowing Culvert Maintenance Summer Culvert Repairs Culvert Replacement or New Installation Maintain Signs Maintain Delineators W-Beam Box Beam Repair or Remove Fence Wash Bridge Decks	Dust Abatement (Calcium Chloride) Dust Abatement (Other Materials) Mobile Equipment; Roadside Strip Spray Mobile Equipment; Spot Spraying Hand Spraying	Supply Winter Sand/Salt Mixture Supply Salt Pothole Patching by Hand Asphalt Pavement Patching by Hand Emergency Patch, Proprietary Material Emergency Patch (ASBC) Cold Mix (Grader) Hot Mix; Rut Repair Hot Mix (Paver) Hot Mix (Grader) Line Painting Re-Gravel Main Alignment Other Re-Graveling Spot Repairs

Safety

Safety performance will form 20% of the Contractor's overall annual score for Contractor Performance Measures. There will be 20 points assessed, on the following criteria for safety performance:

Development of Safe Work Procedures System

- a). Each year the Operations Manager shall identify which two activities she/he requires for safe work procedures, by April 01. The Contractor shall provide in writing, each year, those two safe work procedures, within a month of the Operations Manager's request.

The Operations Manager shall award one point, for this category. If the Contractor complies with this requirement fully, there shall be no deductions made.

A listing of activities for safe work procedures is shown below:

MAINTENANCE ACTIVITIES SAFE WORK PROCEDURES
Snow removal, plow truck
Snow removal by grader
Snowblowing & removal by loader & truck haul
Crack sealing & transverse crack repair
Surface seal (seal & for coating)
Pothole Patching
Sweeping (intersections, bridge deck, etc.)
Line Painting
Pavement Patching & Pavement Markings
Grading gravel surfaces (summer work) & re-gravelling and dust control
Maintaining guardrails, signs & delineator (includes washing)
Washing bridge decks
Bridge wood deck repair
Emergency road closures (dangerous good spills, road hazard, 3 rd party accident response, fire calls, etc.)
Ferries
Mowing & brushing
Chemical vegetation control
Excavation or culvert repairs that involve lane closures.

- b). A copy of the internal or peer safety audit or letter from ACSA with ACSA Audit Summary Sheet is to be provided to the Operations Manager, by the Contractor each year, for each Contract. Audit or letter is to be received by March 31, for the previous year.

Every Contractor that complies with this requirement fully shall be awarded two points.

Accident Reporting and Investigation Process

- a) The contractor shall provide notification of all serious injury or other accidents, involving employees of the contractor or his sub-contractors, engaged in primary highway maintenance work, within the execution of the maintenance contract.

The definition of serious injury is any injury or accident that is reportable by Section 18 of the Occupational Health and Safety Act.

An award of one point will be made by the Operations Manager, for this category if there are no failures in reporting accidents within 72 hours of the occurrence. During the performance evaluation appraisal period, the Operations Manager shall monitor the reporting situation. If, during the performance evaluation period, a report is missed or not reported after an ample opportunity to do so has occurred, then a deduction of one point will be made against the Contractor's safety score, for this item. Should the Contractor have more than one non-reporting incident, in this category, the Contractor's score for this item will be zero, regardless of the number of subsequent incidents.

- b) The contractor should notify the Operations Manager, or designate, of all 3rd party accidents involving serious personal injury, fatalities, or property damage in excess of \$1000 that involves the Contractor's staff or equipment, if the work has been ordered under the terms and conditions of the Maintenance Contract. Reporting to the Operations Manager or designate, would be done usually within seventy two hours of an occurrence.

The Operations Manager shall award initially two points, for this category. During the appraisal period, the Operations Manager shall monitor the reporting situation and shall deduct one point for every incident where the Contractor missed reporting. Notice of the missed incident shall be provided in writing, by the Operations Manager.

Conducting Health & Safety Work Site Meetings

The Contractor shall provide documentation that monthly safety meetings are held and Trans staff are invited, once a year.

This documentation shall normally take the form of a letter, inviting Maintenance Contractor Inspectors, Operations Managers and Regional Safety Officers to meetings. Or this may be done by a standing invitation, contained within the minutes of a biweekly meeting.

Scoring for this item shall be as shown below:

1 Point If the Contractor has provided the letter/invitation.

Safety Pre-commencement Meetings for Subcontractors

Subcontractors (for the purpose of performance measurement) are defined as the following:

Subcontractor: Anyone, or any group, retained to do a significant portion of a major maintenance activity. Normally the Contractor is not involved in direct supervision of the work.

The Contractor should hold a pre- commencement meeting with Subcontractors to discuss application of the following:

1. Hazard Assessment
2. Safe Work Procedures and Practices

The Contractor shall be provided with three points for performance score for this item. A deduction of one point shall be made for each incident when subcontractor pre-commencement meeting were not held, or not covering the two above noted items. This is to be determined by the minutes of the pre-commencement meeting, provided by the Contractor. Should any Contractor have more than three incidents, the Contractors performance score, for this item, shall remain at zero.

Each year the year-end report lists the subcontractors. It is expected that pre-commencement meetings will have been held with all subcontractors, with minutes of the meetings recorded and available to the auditors. Owner operators are not considered subcontractors in this case and may have their pre-commencement meetings included with the main contractor's pre-commencement meeting.

Traffic Accommodation for Work Zones

- a) The Contractor shall provide documentation to confirm a standard process is used for traffic accommodation that meets the Department's standards.

Should Department staff identify deficiencies within work zones, the Contractor shall be advised of these deficiencies immediately. The Contractor shall be provided time to correct the situation (normally a day). After suitable time to correct passes and the situation continues, Department staff will identify the situation as an incident.

The Contractor shall be provided with five points for performance score for this item. A deduction of one point shall be made for each incident when Department staff have identified unsafe situations and the Contractor has failed to correct, within a reasonable time period. Should any Contractor have more than five incidents, the Contractor's performance score, for this item, shall remain at zero.

It is expected that each District shall keep a "master list" of warnings issued and after a reasonable time to correct (normally a day) there will be no incident issued.

Warning:

1st Occurrence - Identified and rectified by the Contractor (Warning, not an Incident). A warning will remain in effect for a two year term. Any re-occurrence within the two year period of the warning will implement an incident.

Incident:

2nd Occurrence - Once documented and if the same deficiency is identified anywhere in the Contract Area (within the performance measures year) issuing of an "Incident" would be recommended to the Operations Manager by the MCI or Safety Officer. Only the OM may issue an "Incident". With the OM's concurrence an "Incident" is issued and the Company Management is advised. The result will be a deduction of one point, to a maximum of five points in this category.

- b) The contractor shall ensure that all flag-persons have been trained and certified. Department staff may request the flag-person on-site, to produce their card of certification.

The Contractor shall be provided with one point for performance score for this item. A deduction of one point shall be made for each incident when Department staff have identified situations where flag persons, who are not properly certified, were working. The Contractor will be provided the opportunity to confirm that the flag person was certified by providing either the card or ACSA certification list, valid at the date of the inspection.

Emergency Communications

The contractor shall provide documentation on how adverse / emergency road conditions are communicated in accordance with the contract specifications. This includes updating the communication plan by October 31. A list of the updated communication list is to be provided to the Operations Manager by October 31, of the performance appraisal period.

The Contractor shall be provided with one point for performance score for this item. If the communication list is not provided on time, then a deduction of that one point will be against the Contractor's Safety Performance Score, for this item.

Winter Preparedness Operator Training

The Contractor shall be provided with three points for performance score for this item. The Contractor shall provide documentation on the following components of winter operator training.

- a) Road Builders Training Safety System (RSTS) snowplow safety training module, documentation that every plow truck operator has received this training.
1 POINT

- b) Auditable and Traceable hands on training for all operators with less than one year experience.
1 POINT

- c) Verification of attendance at pre-season meeting.
1 POINT

Specification Compliance

The Contractor's performance of "Maintenance Contract Specification Compliance" will make up 40 % of the Contractor's annual score for "Maintenance Contract Performance Measures". There will be up to 40 points assessed annually, for this category. Deductions from the Contractor's score 40 points will be done as shown below:

Contract specification compliance measures will come from four basic areas:

- Conformance to generic Quality Assurance Plan.
- "Punitive Damages" assessed against the Contractor.
- Contractor does not comply with specifications, known as "Specification Compliance".
- The Contractor's compliance with "Highway Maintenance Work".

Points will be distributed, for "Contract Specification Compliance", in the following fashion:

10 Points for "Punitive Damages"
5 Points for Warranty and Specification Compliance
5 Points for "Highway Maintenance Work"
20 Points for Quality Assurance Plan

Punitive Damages

Shown below is a listing of specific criteria that can arise where “Punitive damages are assessed against the Contractor”:

- Any work is done that is assessed that reduces unit price due to workmanship.
- If the Department has to hire someone else to get the work done on a timely basis. (If work is within the scope of the contract)
- If work ordered under a premium is not completed on time, if an opportunity had existed for the Contractor to do the work.

The value of the punitive damages is the value of the premium.

- The Contractor does not meet the winter snowplow “response” time requirement specification. The penalty will be applied as per specification 52.1

Any work ordered that is deficient, the value of the work plus the value of the penalty shall be accumulatively added to the accruing value of punitive damages.

- Quality of materials shall not be deemed as included in this category. The Contract has other specifications for deductions due to material quality. (i.e. cracksealing and salt materials)

Deductions from the score will be made on the cumulative value of punitive damage, so far that year, in the appraisal year. Points will be deducted, as shown below:

Under \$5,000		Zero points deducted
\$5,000	to \$ 10,000	One point deducted
\$ 10,001	to \$ 15,000	Three points deducted
\$ 15,001	to \$ 20,000	Five points deducted
\$ 20,001	to \$ 25,000	Seven points deducted
\$ 25,001	to \$ 30,000	Nine points deducted
Over \$ 30,001		Ten points deducted

The Operations Manager shall keep a “running total” of punitive damages and review with the Contractor, on a regular basis, usually monthly or as mutually agreed time frame. Any points deducted will be at the end of the year, March 31, for the appraisal period.

Warranty and Specification Compliance

Criteria that fall under the classification as not complying “Specification Compliance”:

- The Contractor does not undertake warranty work after Department staff has issued a work order of required warranty work. This will be measured by the value non-pay work orders issued by Maintenance Contract Inspectors, for “warranty work”. This would only apply to work that remains undone, after the warranty period has expired. If the Repair work is done, within the warranty period, then it does not fit the criteria as being out of contract specification compliance. The value of the warranty work will be added to the accruing value of “punitive damages” if the warranty period is exceeded.
- The Contractor fails to perform work according to specification, after notice has been provided and sufficient time has passed, to enable the Contractor to correct the deficiency. Normally time to correct will be 30 days or a mutually agreeable time frame.

At the beginning of each appraisal period, the Contractor will be provided a score of 5 points, for this category. A deduction will be made of one point for each incident that occurs, within the appraisal period. If a Contractor has more than 5 incidents within the appraisal period, the Contractor’s score, for this category shall be zero.

Highway Maintenance Work

In regard to “Highway Maintenance Work”, the following are procedures for identification of non-compliance, for Highway maintenance work.

The Contractor fails to complete work under “Highway Maintenance Work” after Department staff have issued prior notice by any one of the following methods:

- Discussion in a Biweekly Meeting
- Written notice or issuance of a Work Order under the Highway Maintenance Work Item by Maintenance Contract Inspector, to the Contractor

Minutes of biweekly meetings or any written notice shall clearly identify exactly what the HMW deficiencies are. All activities to be completed by the earliest of the following:

- Mutually agreed time frame
- Within 30 days

Only one month is allowed from the time of biweekly meeting or issuance of written notice. For biweekly meetings, no extra time is permitted for biweekly meeting minutes preparation or acceptance of the minutes at the next biweekly meeting.

The Contractor shall be awarded five points for this category, at the beginning of the appraisal period. A deduction of one half point will be made for each month the Contractor has failed to complete “Highway Maintenance Work”, as defined above. Should the Contractor have incidents, as defined below, a deduction of one half point will be made, for each incident, within the appraisal period. If a Contractor has more than five points deducted, the Contractor’s score, for this category will be zero. Written notice of deduction is to be provided by the Operations Manager.

1. There are regular inspections that are not reported.
2. The Contractor fails to report specific site conditions, after prior notice had been issued by Department staff, to do so. Once prior notice has been issued a report of specific site conditions is to be provided to the Department within one day of the next normal day time inspection cycle.
3. If regular or planned “highway inspections” are not done on the dates specified.
4. Temporary replacement of a “Stop” or “Yield” sign is not done, after the Contractor has had an opportunity to do so.

Quality Assurance Plan

The Operations Manager (or designate) shall audit documentation required under the Contractor's specification for Quality Assurance Plan. The Operations Manager (or designate) will review 20 activities identified, for that appraisal period. A standard format will be adopted and a joint review done with the Contractor, before the end of the appraisal period. Up to one full point per activity with individual points assigned to each Q/A Process Item will be assessed to the Contractor for each activity that the Contractor can provide adequate documentation.

Note: Partial marks (points) will not be given for individual Q/A Process Items. (All or Nothing)

Universal "Quality Assurance Audit" Form:

A year end audit to be done on twenty of the following based on the following form.

Snow Removal & Ice Control

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Annual checks of spreader device and calibration.	One each per truck/year	Foreman	All trucks must have an inspection completed indicating working condition	.2	
2. Spot calibrate 5% of units For determining number of trucks round up from .5	Per year	Superintendent or designate	5% of all truck have a inspection completed indicating working condition	.2	
3. Payment in hours – time records submitted to Trans are physically spot-audited for time record accuracy	Audit 90% of the fleet/yr. Covering min. 2 storm events	Management or designate	Records have been inspected and a report completed	.2	
4. Site Q/A inspection of work to evaluate conformance to spec and accuracy of measurement	Four Random inspections per CMA per yr. (covering 20% of fleet)	Management or designate	Four random sites per CMA have been inspected – must include checking of the following items: Lights , driver's qualification, equipment compliance to the specification, required number of units	.4	

Mix & Stockpile Salt Treated Sand

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Volumetric measure – total volume of material	One pile/CMA	Superintendent or designate	One pile per CMA must be properly measured with details of the measurement provided	.4	
2. Application rate of salt is as specified	One pile/CMA	Superintendent or designate	Must provide details on the method for re-mixing of previously treated and mixing of new sand confirming correct application rate of salt as specified including bulk salt content calculations	.6	

Supply & Stockpile Sand

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Sieve analysis to be supplied by supplier 1 each per 800 tonnes of material supplied. If consistent material, OM may specify min. 1/source/yr. Results to be consistent with spec agreed to with Trans for specific sources	Random check sieves if supplier results not by an independent lab whose results are certified by a P. Eng. At one per source.	Foreman	Must provide copies of test results on one sample per 800 tonnes of material provided – testing to be completed by an independent lab or certified by a P. Eng	1.0	

Supply Sodium Chloride

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Each load to clearly show the net weight of Product being delivered	Independently re-weigh four loads per year	Superintendent or designate	Four loads have been independently re-weighed and proper documentation provided verifying accuracy of weight	1.0	

Cracksealing

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Use material from recognized product list with suppliers providing Q/C results for each batch of material supplied	Each batch	Foreman	Must provide copies of Q/C results for each batch from Supplier – material must be from the recognized product list	.2	
2. Audit supplier Q/C tests by independent test	One each per supplier	Superintendent	Must supply a copy of one test for each Supplier - tested by an independent testing lab	.3	
3. Audit crew compliance to specification and quantities.	500 lane metres per CMA per season	Superintendent or designate	500 lane metres (.5 km Hwy length) per CMA has been inspected checking that the cracks are clean and sealed	.5	

Crack, Rout & Seal

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Use material from recognized product list with suppliers providing Q/C results for each batch of material supplied	Each batch	Foreman	Must provide copies of Q/C results for each batch from Supplier - material must be from the recognized product list	.4	
2. Audit crew compliance to specifications and quantities. Use templates as per Drawing CBS-10.5M	500 lane metres per CMA per season	Superintendent or designate	500 lane metres (.5 km Hwy length) has been inspected record size of rout with use of template and note method used for cleaning and drying the crack	.6	

Selective Surface Seals

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Obtain supplier results for each batch of material supplied	Do an independent test to verify supplied Q/C results if quantity of product utilized exceeds 20,000 litres per year.	Superintendent	Must provide the Suppliers specification confirming that the material supplied meets requirements and confirm with a sample tested by an independent lab if quantity of product utilized exceeds 20,000 litres per year	.2	
2. Do aggregate sieve analysis – one per source	Do an independent Q/A test per year if sieve not done by an independent testing agency with results certified by a P.Eng.	Foreman	Must satisfy the requirement that the product meets specification if not a pre approved source has Q/A test completed by an independent lab	.2	
3. Site Q/A inspection of work to evaluate conformance to spec and accuracy of measurement.	Two each per CMA per year	Manager or designate	Two sites per CMA have been inspected while and a check to ensure accuracy of measurement and compliance to the specification	.6	

Transverse Crack Repair - Spray Patch

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Do aggregate sieve analysis	One per year per source	Foremen	Must provide copies of one test per source completed by an independent lab or certified by a P.Eng.	.2	
2. Obtain Q/C results if performed by supplier for oil	Verify from bill of lading – 1 load/yr.	Foreman	Must provide copies of Q/C results from each Supplier and copy of one independent test to verify	.2	
3. Site Q/A inspection of work to evaluate conformance to specification and accuracy of measurement	One per year	Superintendent or Management Designate	One site per CMA has been inspected , including a check of the actual length and width of spray patch	.6	

Pothole Patching

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
Site Q/A inspection of work to evaluate conformance to specification and accuracy of the measurement	One section of hwy. per CMA per year	Management or designate	One section of hwy. per CMA has been inspected checking size and number of potholes	1.0	

Asphalt Pavement – Surface, Patching & Deep Patching

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Asphalt Concrete Pavement Mix, provide mix design for the approved mix for each mix from each supplier and each source	One per each supplier per source per mix	Superintendent	Must provide copies of mix designs for the approved mix for each mix, each supplier and each source Note: Contractor Supply Only	.2	
2. Obtain Q/C results if performed by supplier, audit supplier testing Note: Contractor Supply Only	Minimum one independent test to verify asphalt, oil content and gradation as per mix design per year on a min. tonnage of 50 t.	Management or designate	Must provide copies of Q/C results from each Supplier and copy of one independent test to verify asphalt, oil content and gradation as per mix design	.2	
3. Spot check scales or weight of loads.	One per year per supplier	Superintendent or Foreman	Must check scales or weight of loads and provide an inspection confirming accuracy	.1	
4. Site Q/A inspection of work to evaluate conformance to specification and accuracy of measurement	One per CMA per year	Management or designate	One site per CMA has been inspected. A check measurement of the area being repaired vs requested quantities	.5	

Roadway & Raised Median Cleaning

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
Audit for compliance to specification	Four areas per CMA per year, covering all activities done in each CMA	Management or designate	Four areas per CMA have been inspected including a check measure of areas cleaned to ensure accuracy of measurement.	1.0	

Painted Roadway Lines

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Use recognized products list for paint and bead.	Each material		Must provide copy of certification for paint and beads from Supplier	.1	
2. Obtain supplier Q/C results for paint and beads	One per supplier per batch	Superintendent	Must provide copies of Q/C results for one test per batch from each Supplier	.1	
3. Produce or obtain daily application records	Verify to meet spec daily	Foreman	Must provide copies of daily field production records.	.2	
4. Audit daily application and payment quantity	One day's production per CMA per year	Superintendent	Must review, audit and provide copies of one days field production records per CMA – must include checking application rates and method of calculation of rates	.1	
5. Visual conformance to specification on highway	Four 5 km sections and minimum 2 intersections per CMA per year	Management	Four 5 km sections and a minimum 2 intersections per CMA including a check on the width of line placed and the application of bead to ensure compliance with the specification	.5	

Pavement Messages

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Obtain supplier Q/C results	One per supplier	Superintendent	Must provide a copy of Q/C from each Supplier	.2	
2. Visual audit application for conformance to specifications	One per CMA per year	Management or designate	One site per CMA has been inspected checking layout of message to ensure accuracy of measurement	.8	

Grading Gravel Surfaces

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	
Payment in hours – time records submitted to Trans are physically spot audited for time and record accuracy and completeness	One per grader - a maximum of 8 inspections	Management or designate	Records have been inspected and a inspection completed for up to a maximum of 8 graders.	1.0	

Regravelling

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Do aggregate analysis. If consistent material, OM may specify minimum 1 per source per year. Results to be consistent with spec agreed to with Trans for specified material.	One test per 800 tonnes per source	Foremen	Must provide copies of test results on one sample per 800 tonnes of material provided – testing to be completed by an independent lab or certified by a P.Eng	.2	
2. Spot check scales/weights of loads	One per source	Superintendent or designate	Must check scales or weight of loads	.2	
3. Site audit for conformance to specifications	One per CMA per year	Management or designate	One site per CMA has been inspected must include details of a check on the distance covered by a load (spreadrate)	.6	

Supply & Apply Dust Abatement

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Obtain Q/C results certifying analysis of product (copy with each load)	One each per source per batch	Superintendent	Must provide copies of Q/C results for each load	.1	
2. Audit product Q/C analysis – send sample for independent test	One per four loads	Superintendent	Must supply a copy of one test per four loads for each Supplier - tested by an independent testing lab confirming quality	.2	
3. Audit daily bulk application and payment quantity	One day per CMA per year	Superintendent	Must review, audit and provide copies of one day's field production records per CMA	.2	
4. Visual audit application results on highway for conformance to specification	One section per CMA per year	Superintendent	One section per CMA has been inspected, including a check on the application rate in the field	.5	

Emergency Sign Package, Supply, Flagperson, Signs, Vehicle Supply/Arrow Boards

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Do audit of all signs and verify equipment package complete and ready to mobilize	Twice per year per package	Foreman	Each emergency sign package has been inspected twice verifying complete and ready to mobilize	.5	
2. Spot audit compliance to specifications	One/yr./CMA	Management or designate	One activity per CMA have been inspected	.5	

Highway Maintenance Work

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Keep record of highway maintenance work on approved form	Check use of form	Foreman	Must provide documentation that the use of approved form has been reviewed with staff	.1	
2. Audit inspections for compliance	Four per CMA per year	Management or designate	Four inspections per CMA on approved form have been reviewed and documentation provided including copies of the inspection reports and check to ensure that minimum standards are met	.4	
3. Audit winter inspection circuits for completion of inspection and accuracy of road condition assessment	Four circuits per CMA per year	Management or designate	Four winter inspections per CMA on approved form have been checked and verified for completeness and accuracy of the road condition assessment within 24 hrs of completion of report and documentation provided including copies of the inspection reports	.5	

Mowing

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Audit check to verify cuts 150 mm in accordance with specification.	One day's production per CMA per year	Management or designate	One days production per CMA has been inspected. checking and verifying height of cut is in specification	.3	
2. Audit mowing width for partial right-of-way mowing	One day's production per CMA per year	Management or Designate	One days production per CMA has been inspected verifying mowing width for partial right-of-way mowing	.3	
3. Audit that hand trimming has been done as required	One day's production per CMA per year	Management or designate	One days production per CMA has been inspected verifying that hand trimming has been done as required	.4	

Vegetation Control

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Verify applicator has proper license	Once per year	Superintendent	Must provide copies of all applicator's licenses	.1	
2. Obtain copies of permits and advertisement	Once per year	Superintendent	Must provide copies of any required licenses and permits	.1	
3. Obtain production reports confirming application rate	For all areas	Foreman	Must provide copies of production reports for all areas verifying application rates and method of calculation of rates of application	.4	
4. Audit application of chemicals in accordance with specification	Once per season, one area per CMA	Superintendent	One area per CMA has been inspected including a check that the application of chemicals is in accordance with specifications	.2	
5. Audit production reports	One day per year per CMA	Management or designate	One days production report per CMA to be reviewed for completeness and accuracy with documentation provided verify that the application rate is appropriate for type of weeds targeted	.2	

Supply of Signs & Supply / Install Posts

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Supplier to provide certification that materials supplied meet specification and are from recognized products list	Once per year per supplier	Superintendent	Must provide the Suppliers specification confirming that the materials supplied meet requirements and are from the recognized products list	.5	
2. Spot audit installation to verify conformance to specifications	Four installations/ CMA/year	Management or designate	Four installations per CMA have been inspected - must include details verifying conformance to specifications	.5	

Work on Major Signs & Sign Structures

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Supplier to provide certification that materials supplied meet specifications and are from recognized products list.	Once per year per supplier	Superintendent	Must provide the Suppliers specification confirming that the materials supplied meet requirements and are from the recognized products list	.4	
2. Spot audit installation to verify conformance to specifications	Four per year per CMA	Management or designate	Four installations per CMA has been inspected	.6	

Supply & Install W-Beam Guardrail & Posts

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Supplier to provide certification that materials supplied meets specifications and are from recognized products list.	Once per year per supplier	Superintendent	Must provide the Suppliers specification confirming that the materials supplied meet requirements and are from the recognized products list	.3	
2. Spot audit installations to verify conformance to specifications and the posts have a date certificate attached.	Four installations per year per CMA	Management or designate	Four installations per CMA have been inspected for accuracy of measurement for spacing, height and depth of posts, verification that posts have a date certificate attached and are properly compacted	.7	

Bridge Structure Cleaning

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
Spot Audit to verify compliance to specification	One bridge per CMA per year.	Management or Designate.	One bridge per CMA has been inspected including a check on the accuracy of measurement	1.0	

Environmental Management Plan (EMP) for Highway Maintenance Yards

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
1. Check that EMPs are on site at every shop.	1 per year, per shop	Superintendent or Designate	Documentation that all shops have EMPs on site.	.1	
2. Documentation of staff being trained in requirements of EMP.	Once per employee	Foreman or Superintendent	Documentation of each individual trained in requirements.	.1	
3. Document effectiveness of the EMP.	1 per year	Superintendent	Document inspection of shop and yard as to conformation to the EMP.	.1	
4. Follow-up inspection of deficiencies.	As required	Superintendent	Document follow-up as required.	.1	
5. Inspection of Highway Maintenance yard by independent and qualified engineering consulting firm registered with A.P.E.G.G.A.	2 per year: 1 in Jan / Feb 1 in July / Aug	General Manager	Copy of consultant's inspection report within two weeks of inspection.	.1	
6. Notification to Alberta Infrastructure and Transportation of when consultant is going to do inspection so that Alberta Infrastructure and Transportation may attend.	2 per year	Superintendent or Designate	Copy of notification letter.	.1	
7. Records and logs are being kept to demonstrate that proper controls are in place working successfully and monitored.	Ongoing	Foreman	Records are being kept according to the Environment Protection and Enhancement Act and Water Control Regulations at all Highway Maintenance Yards.	.1	
8. Reporting to Alberta Environment any releases that have occurred or have potential to cause any adverse effect.	As occur	Foreman or Designate	Failure to report incidents according to the Release Reporting Regulation (Alberta Environment, 2001).	.1	

Q/A Process Items	Minimum Frequency	Responsibility	Assessment Criteria	Points	Score
9. All issues identified by Alberta Environment be reported to Alberta Infrastructure and Transportation.	As occur	General Manager	Failure to report any occurrence.	.1	
10. Groundwater Quality Monitoring	2 per year	Superintendent or Designate	Copies of chloride and sodium testing of water at each site by qualified engineering consultants registered with A.P.E.G.G.A.	.1	

**Summary of Maximum Scoring for
Maintenance Contract Performance Measures**

	Points	Score
Timeliness	40	
Total Points	40	
Safety		
Development of Safe Work Procedures		
a) Provide two work procedures	1	
b) Provide internal or peer audit	2	
Accident Reporting & Investigation Process		
a) No failure to report serious accident within 72 hours	1	
b) Notification of 3rd Party Accidents greater than \$1000.00	2	
Conducting Health & Safety Work Site Meetings		
a) Invitation to safety meetings	1	
Safety Pre-Commencement Meetings for Subcontractors		
a) Minutes of all meetings showing discussion of Hazard Assessments and Safe Work Procedures and Practices	3	
Traffic Accommodations for Work Zones		
a) Incidents of failure to correct identified unsafe situations	5	
b) Incidents of flagpersons not properly certified	1	
Emergency Communications		
a) Updated communications list by October 31	1	
Winter Preparedness Operator Training		
a) Documentation of RSTS snowplow	1	
b) Auditable and trackable hands-on training	1	
c) Verification of attendance of pre-season meeting	1	
Total Points	20	
Specification Compliance		
Punitive Damages	10	
Warranty and Specification Compliance	5	
Highway Maintenance Work	5	
Quality Assurance Plan	20	
Total Points	40	
Grand Total	100	

Environmental Management Plan Guidelines Highway Maintenance Yards

(Minimum Requirements)

Date: March 4, 2005

Environmental Management Plan Guidelines Highway Maintenance Yards

Table of Contents

1. Definitions:.....	1
2. Introduction:.....	2
3. Purpose:.....	3
4. Objectives:.....	3
5. Responsibilities	4
5.1. Alberta Infrastructure and Transportation	4
5.2. Highway Maintenance Contractor (HMC)	4
5.3. Contact List.....	4
6. Document Preparation and Administration:.....	5
7. Quality Assurance Monitoring and Reporting:	5
8. Product Storage and Handling.....	6
8.1. Product Identification and Labeling.....	7
8.1.1. Product Identification, Storage and Handling.....	7
8.2. Storage Containers and Tanks (environmentally sensitive products).....	8
8.2.1. General.....	8
8.2.2. Containers	8
8.2.3. Storage Tanks.....	8
8.3. Solid Asphalt Mix Storage.....	9
9. Spill Prevention and Response Requirements.....	9
10. Contamination Risk Areas	9
10.1. Designated Area.....	9
10.2. Sanitary Sewage Systems	10
10.3. Fuel and Oil Storage or Use Areas	10
10.4. Treated Lumber Storage Areas	11
11. Salt Storage and Handling Requirements	11
11.1. Salt Shed Operations.....	11
11.2. Salt Off-loading Requirements	11
12. Salt/Sand Management Practices.....	11
12.1. Salt/Sand Mixing Requirements	12
12.2. Salt/Sand Stockpile Carry-over Requirements	12
12.3. Salt/Sand Covering Requirements	12
12.4. Equipment Maintenance and Cleaning Requirements.....	13
13. Saline Water Containment and Disposal (salt impacted runoff water).....	13
13.1. Saline Water Containment Pond Design and Construction	13
13.2. Saline Water Disposal.....	14
14. Site Drawings and Sketches.....	14
15. APPENDIX A.....	15

1. Definitions:

“Owner” means the “Fee Simple” owner of the Highway Maintenance Yard (HMY).

“Owned or Previously Owned” means Highway Maintenance Yards and satellite sites that were or are currently owned by Alberta Infrastructure and Transportation. This refers to all Government Highway Maintenance Yards and satellite sites regardless of when ownership changed hands.

“Government” means the Alberta Government of the province of Alberta, Canada.

“Contaminant” means any physical, chemical, biological or radiological product, substance or material that has an adverse affect on the environment

“Containment” means to control, hold back or confine a product, substance or material within a predetermined area.

“Designated Area” means the area used for all Salt and Salt/Sand storage, mixing and handling.

"Release" means to spill, discharge, leach, leak, seep, dispose of, spray, inject, inoculate, abandon, deposit, pour, emit, empty, throw, dump, place or exhaust.

"Storage" means the holding of a substance or thing for a temporary period at the end of which it is processed, used, transported, treated or disposed of.

“All Weather Shelter” means an indoor storage structure constructed on an impermeable floor of asphalt, concrete, or other suitable material that is graded away from the centre of the structure for drainage purposes. The pad shall extend around the exterior of the structure and be graded away from the building, such that runoff is prevented from entering the structure. The structure shall have a suitably sealed perimeter to prevent salt from leaking to the exterior. The roof and the exterior including end walls of the structure shall be of waterproof material, such that precipitation and moisture are prevented from entering the structure. A tarp supported by the pile is not considered an indoor structure.

“Highway Maintenance Contractor (HMC)” means the highway maintenance contractor for Alberta Transportation who is the occupant or potential occupant of a Highway Maintenance Yard.

“Highway Maintenance Yard” (HMY) means the lands and improvements used for highway maintenance operations, in whole or in part for Alberta Transportation.

“Risk Management” means a plan and actions to reduce, control or prevent exposure to contamination. A Risk Management plan must have a fully delineated contamination area, source control, monitoring wells and be approved by all the stakeholders including Alberta Environment.

2. Introduction:

A Joint Environmental Committee with representatives from Alberta Environment, Alberta Infrastructure and Transportation recommends a unified approach to the prevention and management of salt contamination at Highway Maintenance Yards (HMYs). One of the recommendations is for the Highway Maintenance Contractors (HMCs) to develop Environmental Management Plans (EMPs) that protect the environment.

This EMP Guideline is developed as a go forward document for inclusion in Alberta Infrastructure and Transportation's Highway Maintenance Request for Proposals.

It is intended that the HMC undertake the Owners responsibility on HMYs they occupy and that EMPs they develop and administer comply with this guideline and address all potential contaminants and environmental issues.

Alberta Infrastructure and Transportation has an interest in source control of contaminants and preventing contamination on HMYs the department owns or previously owned. This interest is necessitated by Alberta Infrastructure and Transportation's ongoing efforts and responsibility to develop Risk Management plans for adjacent lands that may be contaminated due to Alberta Government operations at these HMYs.

The Joint Environmental Committee has designated all Government owned or previously owned HMYs as "High, Medium, or Low Priority Sites". EMPs for these sites must comply with the following requirements.

- ◆ "High Priority Sites (Priority One)" are those sites that are within 300 meters of a watercourse or permanent open water body; in or near communities where the water supply is obtained from shallow aquifers (identified in Appendix A); where the average surficial soil texture (texture of 1.5 metre surface) has a median grain size greater than 75 microns. These sites require the construction of an "all weather" shelter of appropriate size to fully enclose (including end enclosures) the on-site salt requirements, salt unloading activities, annual volume of salt/sand storage, mixing and loading operations. The interior shall be considered the Designated Area.
- ◆ "Medium Priority Sites (Priority Two)" are those with limited or no information about contamination, and are not in close proximity to water supplies. These sites require construction of an "all weather" shelter of appropriate size to fully shelter the annual volume of salt/sand storage, an asphalt containment area (Designated Area) for salt impacted material and a lined containment pond for runoff water.
- ◆ "Low Priority Sites (Priority Three)" are those that are not considered to be a concern for contamination. Maintain the salt/sand pile covered with tarps and protected from wind and rain. These sites require construction of an asphalt

containment area (Designated Area) for salt impacted material and a lined containment pond for runoff water. Note: this category is not considered applicable for EMP's as all HMY's are considered a concern for contamination.

3. Purpose:

The purpose of the Environmental Management Plan Guideline is to ensure a consistent approach for Owners to implement, coordinate and maintain EMPs on HMYs.

This guideline is provided to document the minimum environmental requirements of an EMP. It is intended to provide a broad overview of environmental issues that face the industry, outline minimum EMP requirements, performance issues, basic monitoring and reporting requirements and to minimize misunderstandings in preparing EMPs.

This guideline is for use as a basis for preparing, reviewing and assessing the minimum requirements for source control at HMYs. These same guidelines apply to all Owned or Previously Owned HMYs where HMCs store or obtain mixed salt/sand products for use on a highway maintenance contract with Alberta Transportation including HMYs previously owned by the Government that are now owned or operated by third parties.

4. Objectives:

The primary objectives of the Environmental Management Plan Guideline are to ensure that the HMC :

- ◆ will comply with the *Environmental Protection and Enhancement Act, Alberta Fire Code, Canadian Environmental Protection Act (CEPA), Waste Control Regulation, Release Reporting Regulation, Water act, Storm Water and Drainage Regulation* and any other legislation pertaining to the protection of the environment at the HMY and adjacent properties,
- ◆ will conduct its operation in a manner that will protect the HMY and adjacent properties and will prevent situations hazardous to the health of individuals and the environment,
- ◆ will inspect the HMY, and conduct investigations necessary to ensure compliance with the EMP, any lease agreements and all environmental laws,
- ◆ will implement best practices to prevent the release of contaminants at the HMY. It is understood that some tracking or release of contaminants such as salt is inherent in the handling operations and that the best practices must ensure tracking is kept to a minimum,
- ◆ will promptly notify the regulatory authorities if there is a release of contaminants in accordance with the Alberta Environment - Release Reporting Guidelines,

- ◆ will be responsible for the full cleanup of any contaminant releases.
- ◆ will have an acceptable EMP complying with this guideline prior to commencing operations at the HMY,
- ◆ will provide an EMP that is specific to the HMY that consists of an itemized list of each product clearly describing the intended process for storage, handling and use of each such product. The EMP will include a site plan showing specific storage areas and additional plans as necessary to illustrate how materials will be stored, protected and secured,
- ◆ will monitor and maintain records of activities required to comply with the EMP,
- ◆ will monitor their performance as required by the EMP.

5. Responsibilities

5.1. Alberta Infrastructure and Transportation

- ◆ Ensure the HMCs are aware of the requirements for an acceptable EMP.
- ◆ Ensure Leasing Branch is advised of the successful HMC for each contract involving Government owned HMYs that are to be leased.

5.2. Highway Maintenance Contractor (HMC)

- ◆ Provide an EMP that complies with this guideline, ensures source control, meets all the environmental legislation, complies with the highway maintenance contract and where applicable, the requirements of the lease agreement for Government owned HMYs.
- ◆ Provide an acceptable EMP prior to commencement of the contract and where applicable, with sufficient time to execute a lease for Government owned HMYs prior to commencement of the contract.
- ◆ Pay all costs associated with maintenance and improvements required to comply with their EMP.

5.3. Contact List

Alberta Infrastructure and Transportation

Moh Lali - Director – Transportation

Rob Tomalty - Area Manager, Lethbridge (403-381-5393)

Steve Rawcliffe – Area Manager, Calgary (403-297-3247)

Don Franks – Area Manager, Red Deer (403-340-7652)

George Tribe – Area Manager, Edmonton South (780-422-0356)

Arvid Hopp – Area Manager, North West (780-460-4990)

Louis Levasseur – Area Manager, North East (780-645-6286)

Alberta Environment

Emergency release reporting – 1-800-222-6514

6. Document Preparation and Administration:

- ◆ The HMC will prepare EMPs in a format of their choosing and will address all the issues referenced in the Environmental Management Plan Guideline.
- ◆ The HMC will keep copies of the EMP on-site that will be readily available for review by all the HMC staff and contractors as well as Alberta Infrastructure and Transportation's representative.
- ◆ The HMC will keep documentation that verifies that persons working at HMYs are suitably instructed to the extent they are involved in the use, handling and storage of products covered in the EMP and that they can and will comply with the requirements of the EMP.
- ◆ The HMC will review the effectiveness of the EMP on a regular basis and at least annually. If required, the HMC, Alberta Infrastructure and Transportation will recommend amendments to the EMP.

7. Quality Assurance Monitoring and Reporting:

- ◆ The HMC will at their own cost arrange for semi-annual inspections and any required follow up inspections by an independent and qualified engineering consulting firm registered with A.P.E.G.G.A. to determine compliance with the EMP. One inspection in summer season (July – August) and another in winter season (January – February). The HMC shall notify Alberta Infrastructure and Transportation of the time and dates of inspections so they may attend and they may do independent inspections at that time. The HMC shall make corrections identified in the reports and arrange for immediate follow up inspections. Copies of the inspection reports shall be provided to Alberta Infrastructure and Transportation within four weeks of completion.
- ◆ Alberta Infrastructure and Transportation and Alberta Environment may conduct additional investigations to ensure compliance with the EMP's and lease agreements. The HMC shall make corrections identified in the engineering reports or on-site inspections where they are found to be non-compliant.
- ◆ Alberta Infrastructure and Transportation may, but is not obligated to enter HMY's owned by Alberta Infrastructure and Transportation to rectify situations where the HMC is in any way failing to comply with the lease agreement or EMP requirements.
- ◆ The HMC will keep records and logs to demonstrate that proper controls are in place, working successfully and monitored.
- ◆ The HMC will immediately report to Alberta Environment any releases that have caused or have the potential to cause an adverse effect. Reporting requirements are described in the *Release Reporting Regulation* (Alberta Environment, 2001). Examples of reportable releases include, but are not limited to, overflowing catchment area, containment ponds or significant spills outside the containment area and any release of contaminants that leave the HMY.
- ◆ The HMC will notify Alberta Environment of all oil, diesel, gasoline or dangerous good spills no matter what the size of the spill. Fisheries and Oceans as well as the Coast Guard also require notification where the spill occurs near a stream, river or water body.
- ◆ The HMC will report to Alberta Infrastructure and Transportation any environmental related issues and complaints by the public or adjacent landowners.

- ◆ Representatives for Alberta Infrastructure and Transportation will advise the HMC of any environmental related issues and complaints by the public or adjacent landowners.
- ◆ The HMC will provide groundwater quality monitoring.
 - ◆ Provisions at minimum shall include one monitoring well to be located hydraulically up-gradient and two wells down-gradient.
 - ◆ One of the down-gradient wells shall be located immediately down-gradient from the run-off containment pond where a pond is utilized.
 - ◆ Unless gravels are encountered throughout the profile, the well shall be designed to allow collection of groundwater samples from the uppermost water bearing formation. Where no water is encountered, depth of placement of the piezometers for the protection of the groundwater aquifer is at the discretion of the hydrogeologic specialist registered by A.P.E.G.G.A...
 - ◆ The HMC shall arrange initial sampling of chloride and sodium concentrations as soon as the groundwater levels have stabilized in the monitoring wells. Subsequent sampling and testing shall be done semi-annually.
 - ◆ The groundwater sampling and laboratory analyses shall be directed by an independent and qualified engineering consulting firm registered with A.P.E.G.G.A.. Analytic sampling is to meet CAEAL (Canadian Association of Environmental Analytical Laboratories) requirements. Calcium and magnesium are to be included within the sampling to determine SAR (sodium adsorption ratio). All results shall be provided to Alberta Infrastructure and Transportation within 60 days of sampling.
 - ◆ The HMC shall be responsible for all costs associated with monitoring well installation, maintenance, sampling and analysis. Costs for additional samples requested in excess of the frequency specified above will be the responsibility of the party requesting the samples.
- ◆ The HMC will obtain the necessary approvals required by the Alberta Environment *Water Act*, the *Environmental and Protection Act* and the *Stormwater Management Guidelines*, prior to making changes to the HMY landscape. The HMY is responsible for all costs associated with applications, approvals, modifications as a result of the above act and regulation, as well as any moving or relocating sand, salt or structures put in place prior to the required approvals. Approvals can take 30 days from the date of application, but may take much longer depending on the circumstances.

8. Product Storage and Handling

This section provides a summary of the products and operational issues to be considered by the HMC in the preparation of an EMP. The HMC is fully responsible for assessment of the site to ensure all the environmental issues are identified and addressed in the EMP.

8.1. Product Identification and Labeling

8.1.1. Product Identification, Storage and Handling

The following table identifies many of the products that are commonly stored and handled at the HMY and provides a brief description of their potential for release into the environment. When released into the environment, these products may be contaminants and therefore the HMC must address their potential release in their EMP. This is not an all-inclusive list. The HMC must provide an all-inclusive list of products in use or storage.

product	Storage and Handling Issues	
<p>Salt</p> <p>Pre-wetting Brine</p>	<ul style="list-style-type: none"> • Spillage on the ground and/or becoming airborne during delivery and salt shed filling process. • Spillage on the ground and/or becoming airborne during movement of salt from the salt shed to the mixing area. • Precipitation falling on the sand/salt pile carries salt out of the designated area. • Truck parked in heated garage. • Condition of containment ponds. • Saline water disposal from containment ponds. • • Mag Chloride and Calcium Chloride may be stored in tanks in the designated area outside or in a separate area with 100% secondary containment. • Sodium Chloride may be stored inside the shops where secondary containment is provided or (1) the municipality approves where a spill goes to the municipal drain or (2) the leaching cesspools have been changed to a suitably sized storage tank. 	<ul style="list-style-type: none"> • Sand/salt mixture falling from loaded trucks as they drive on the site. • Equipment used for handling, relocation and mixing of salt or sand/salt mixture is used for other purposes, thereby depositing salt at the location where the equipment is used. • Snow piles created on the site during snow removal operation. • Washing of trucks on the site. • • The type of brine, concentrations and methods of storage and handling must be clearly posted and addressed in an environmental management plan.
<p>Engine Fuel</p>	<ul style="list-style-type: none"> • Leaking underground fuel storage tanks. • Leaking aboveground fuel storage tanks. • Spillage while refueling at the designated refueling area. • Spillage while refueling at random locations on the site. • Leaking fuel tanks and slip tanks on vehicles and equipment. • Spillage during removal from vehicle or equipment fuel tank. 	<ul style="list-style-type: none"> • Leakage during storage prior to disposal. • Spillage and dripping on the site during cleaning/rust proofing of truck boxes or other equipment. • Spillage or improper disposal of fuel used as a cleaning solvent. • Leakage from 45-gallon drums stored for future use.
<p>Engine Oil and Filters</p>	<ul style="list-style-type: none"> • Leakage from dispensing equipment • Spillage during oil change procedure. • Spillage and dripping on the site during cleaning/rust proofing of truck boxes or other equipment. 	<ul style="list-style-type: none"> • Leaking vehicles and equipment. • Leakage from empty oil containers prior to disposal. • Leakage/spilling during storage prior to disposal.
<p>Lubricating Grease</p>	<ul style="list-style-type: none"> • Leakage from dispensing equipment. • Spillage during lubrication procedure. 	<ul style="list-style-type: none"> • Leakage from empty grease containers and dispensers prior to disposal. • Leakage from storage tanks or containers.
<p>Automotive Antifreeze</p>	<ul style="list-style-type: none"> • Leakage from dispensing equipment. • Spillage during filling, mixing procedures. • Leaking vehicles and equipment. 	<ul style="list-style-type: none"> • Spillage during removal from engine or flushing procedures. • Leakage from storage tanks or containers.
<p>Solvents</p>	<ul style="list-style-type: none"> • Leakage from dispensing equipment. • Improper ventilation of airborne vapors. • Spillage during cleaning of vehicle and equipment parts. 	<ul style="list-style-type: none"> • Spillage during thinning of paints and cleaning of painting tools or equipment. • Leakage from storage tanks or containers.
<p>Liquid/Solid Asphalt, Liquid Paint</p>	<ul style="list-style-type: none"> • Leakage from dispensing equipment. • Spillage during filling, mixing procedures. • Leakage from application equipment. 	<ul style="list-style-type: none"> • Leakage from storage tanks or containers.
<p>Soil Sterilants, Herbicide, Insecticide</p>	<ul style="list-style-type: none"> • Leakage from dispensing equipment. • Spillage during filling, mixing procedures. • Inadequate labeling of mixed product. • Regulation compliant storage area 	<ul style="list-style-type: none"> • Improper cleaning of application equipment and containers. • Leakage from any containers during storage. • WHMIS compliant
<p>Automotive Batteries</p>	<ul style="list-style-type: none"> • Improper charging procedure, location and storage and disposal. 	

<p>Pre-treated Timber, Oily Rags, Absorbents, Tires, Aerosol Cans</p>	<ul style="list-style-type: none"> • Inadequate storage locations and procedures. • Excessive quantities. • Lengthy storage time.
--	--

8.2. Storage Containers and Tanks (environmentally sensitive products)

8.2.1. General

- ◆ The HMC will dispose of, in an appropriate manner, residue/waste from equipment cleaning, drippings, etc. Such disposal methods and locations will be identified in the EMP.
- ◆ The HMC will clearly label all product containers and tanks identifying the product being contained in accordance with WHMIS regulations.

8.2.2. Containers

- ◆ The HMC will ensure that no sources of ignition, such as smoking or open flames, are present where inflammable products are stored.
- ◆ The HMC will maintain containers in good condition. The containers will be accurately and sufficiently labeled with no residue on the outside of containers. Containers in questionable condition should be placed in an overpack container and removed from site.
- ◆ The HMC will ensure leaking containers have contents transferred to secure container or be placed in an overpack container.
- ◆ The HMC will ensure that stacking of containers in storage will be done in a manner that will not cause the containers to be damaged or ruptured by excessive weight, falling or tipping.
- ◆ The HMC will store and label all containers in a containment area.

8.2.3. Storage Tanks

- ◆ The HMC will construct, operate, and inspect tank systems used for storage, blending, or processing of liquids to ensure that they are environmentally sound.
- ◆ The HMC will ensure that all tanks, stationary or portable, located or kept on site, have secondary containment. Secondary containment may necessitate the construction of an earthen berm around a tank or provisions of a designated location with secondary containment for a portable tank.
- ◆ The HMC will ensure all hoses used for transfer purposes are free of cracks or defects. When not in use, hoses are to be placed in a manner to prevent leakage or a method provided to capture any leakage.
- ◆ The HMC will place a drip pan or bucket under the hose connections to contain any drippings during transfer of liquids into or out of tanks.

8.3. Solid Asphalt Mix Storage

- ◆ The HMC will not prepare asphalt mix on Government owned HMYs unless approved in writing by Alberta Infrastructure and Transportation.

9. Spill Prevention and Response Requirements

- ◆ The HMC will operate the facility to minimize the possibility of a fire, explosion or unplanned release of substances. A site specific Contingency or Emergency Response Plan must be in place that has been prepared by the HMC to minimize health and environmental hazards arising from fires, explosions, or any other unplanned release of substances.
- ◆ The HMC must be aware of the applicable legislation such as the *Release Reporting Regulation* with respect to spills, spill response, and reporting requirements.
- ◆ The HMC will equip the facility with appropriate spill response equipment and documented procedures
- ◆ On Government owned HMYs, the HMC will ensure that Alberta Infrastructure and Transportation is contacted in a timely manner in the event of any fire, explosion, or release of substance.

10. Contamination Risk Areas

HMYs have areas that are affected by high concentrations of potential contaminants. These areas require ongoing monitoring and care to ensure adequate source control. The HMC will keep records and logs to demonstrate that proper controls are in place, working successfully and monitored.

10.1. Designated Area

- ◆ The HMC will ensure that the designated area has an impervious surface such as asphalt. The boundaries of the designated area will be designed and constructed so that the salt and salt/sand mix is confined to the area. The minimum recommended asphalt thickness is 100mm. 150mm rolled design curbs or similar height perimeter edge banking should be considered in the design.
- ◆ The HMC will ensure the exposed surface is examined each spring for drainage and condition and all necessary maintenance is performed. The pavement base should be evaluated as salt may have contaminated the base to the point that it may not be capable of supporting the intended loads.
- ◆ The HMC will ensure proper drainage flow and crack sealing to direct surface runoff to a saline water containment pond.
- ◆ The HMC will ensure that the designated area is large enough to accommodate the storage of salt impacted snow so as to have any melt-water runoff directed to the saline water containment pond.
- ◆ The HMC will ensure that any detritus or salt impacted material accumulating on the designated area is added to the salt/sand pile or disposed of in accordance with the appropriate legislation. Such material shall not be stored off the designated area.

- ◆ The HMC will prepare detailed plans and operating procedures for all requirements of the EMP to ensure salt will be confined to the designated area. The plans will detail the containment area as well as a containment pond for saline runoff water.
- ◆ The HMC will immediately clean up all salt spilled outside the designated area. Spills will be reported as per the *Release Reporting Regulation* (Alberta Environment 2001) and recorded in the Owner's onsite logbook.

10.2. Sanitary Sewage Systems

- ◆ The HMC will not use the sanitary sewage systems as catchment areas for saline rain or snow melt water, or for any other contaminants.
- ◆ The HMC must obtain written approval from the municipality before connecting new drainage systems used for washing salt impacted vehicles and equipment to municipal systems
- ◆ The HMC may direct sanitary sewage containing saline water from washing salt impacted vehicles and equipment to a holding tank, provided that the holding tank is pumped out and the effluent is disposed of in accordance with the applicable regulations.
- ◆ The HMC will not use municipal ditches, roadway ditches, natural drainage courses or property for any saline water runoff.

10.3. Fuel and Oil Storage or Use Areas

- ◆ The HMC will maintain fuel storage tanks to current *Alberta Fire Code* standards.
- ◆ The HMC will register fuel storage tanks with the Petroleum Tank Management Association of Alberta.
- ◆ The HMC will not use above ground farm type, fuel storage tanks.
- ◆ The HMC will not use underground fuel storage tanks.
- ◆ The HMC will provide and maintain a surface, such as concrete, in the vehicle refueling area to contain spills.
- ◆ The HMC will provide and maintain containment areas where oil or petroleum products are stored or used. These areas will be of sufficient size to contain 100% of the stored products. This includes fuel used to clean or rust proof truck boxes or other equipment. Note: Not required for unopened containers 4 liters or smaller.
- ◆ The HMC will clean up all spills and recycle or dispose of spilled materials in accordance with the *Environmental Protection and Enhancement Act* and the *Waste Control Regulation*.
- ◆ The HMC will keep records as required by the *Environmental Protection and Enhancement Act* and the *Waste Control Regulation* for all contaminants disposed of and these records will be made available upon request.
- ◆ The HMC will not use fuel or oils over absorbent material with the intent of deliberately releasing a contaminant and disposing of the contaminated absorbing material.

10.4. Treated Lumber Storage Areas

- ◆ The HMC will store treated timber products in an area specifically marked for the purpose.
- ◆ The HMC will ensure that treated timber products are covered.
- ◆ The HMC will keep the stored quantities at a reasonable amount.
- ◆ The HMC will remove unusable or broken material from the site at least annually. Disposal will be in accordance with the *Environmental Protection and Enhancement Act* and the *Waste Control Regulations*.

11. Salt Storage and Handling Requirements

Extreme care must be exercised in the storage, handling and delivering of salt to ensure salt is not released to the environment. Best practices must ensure good housekeeping standards are maintained. Extensive contamination occurs due to the cumulative effect when salt is released over a localized area.

11.1. Salt Shed Operations

- ◆ The HMC will store salt in a salt shelter or covered structure.
- ◆ The HMC will inspect the salt shelter annually and take remedial action to maintain the structure.
- ◆ The HMC will keep the salt shed doors closed when there is no salt operation in progress.

11.2. Salt Off-loading Requirements

- ◆ The HMC will ensure that a trained person perform or supervise all aspects of the off-loading of the salt into the salt shed or shelter.
- ◆ The HMC may load salt into the shed by conveyor or blow salt into the shed by providing a piping system with filtered air vents designed for the purpose. The piping system will be thoroughly cleaned before and after each use and will have operating procedures posted on the shed. The type of filters and frequency of cleaning and changing will be part of the operating procedures. The shed doors and other openings will be closed and sealed during blowing operations to ensure air escaping the shed does so only through the filter sections.
- ◆ The HMC will clean salt spilled during the off-loading operations on completion.
- ◆ The HMC will adjust operations or stop off-loading immediately if airborne salt is observed leaving the designated area, or the shelter in the case of High Priority sites.

12. Salt/Sand Management Practices

Containment of salt and salt impacted materials is a mandatory lease agreement requirement on Government owned HMYs. Every effort should be taken to ensure salt is fully contained.

12.1. Salt/Sand Mixing Requirements

- ◆ The HMC will undertake all pickled salt/sand mixing, storage and handling in the Designated Area.
- ◆ The HMC will contain all salt/sand within the Designated Area at all times.
- ◆ The HMC will develop and comply with a detailed procedure that ensures salt dust or spray does not leave the Designated Area.
- ◆ The HMC will not carry out the pre-winter mixing operation when wind conditions cause any salt dust or spray to become airborne and migrate off the designated area.
- ◆ The HMC will ensure that persons involved in the mixing operation are properly instructed and familiar with the requirements to limit salt and salt dust or spray to the designated area.

12.2. Salt/Sand Stockpile Carry-over Requirements

- ◆ The HMC will work with Alberta Infrastructure and Transportation to minimize the quantity of salt/sand stockpile carry-over at the end of each highway maintenance period.
- ◆ The HMC will undertake all reasonable activities to prevent salt water leaching or flowing into natural drainage courses, roadway ditches or onto adjacent lands.

12.3. Salt/Sand Covering Requirements

- ◆ The EMP must comply with the following requirements at all HMY's:
 - ◆ “High Priority Sites (Priority One)” As a minimum, these sites require the construction of an “all weather” shelter of appropriate size to fully shelter the on site salt requirements, salt unloading activities, annual volume of salt/sand storage, mixing and loading operations. The interior shall be the Designated Area.
 - ◆ “Medium Priority Sites (Priority Two)” As a minimum, these sites require construction of an “all weather” shelter of appropriate size to fully shelter the annual volume of salt/sand storage, an asphalt containment area (Designated Area) for salt impacted material and a lined containment pond for runoff water.
 - ◆ “Low Priority Sites (Priority Three)” As a minimum, these sites require the salt/sand pile to be covered with tarps and protected from wind and rain, construction of an asphalt containment area (Designated Area) for salt impacted material and a lined containment pond for runoff water. (*see note in section 2. Introduction: Low Priority Sites*)
 - ◆ Tarps used for covering salt/sand piles must be firmly secured to solid anchors suitable for the purpose.
 - ◆ Salt/sand piles must be covered with tarps at all times during rainy season generally mid May to October. Salt/sand piles must also be suitably protected from wind erosion for the balance of the year.

- ◆ Shelters used for covering salt/sand piles may be temporary metal, wood or fabric structures. The shelters should be installed on wood or concrete pony walls of sufficient height and construction to accommodate the volume of material stored and loading equipment activity. The shelters must be adequately sealed to prevent entry of water and escape of dust.

12.4. Equipment Maintenance and Cleaning Requirements

- ◆ The HMC will only clean salt and road grit from equipment on the designated area.
- ◆ The HMC will not wash salt from plow trucks or equipment on the HMY unless an adequate catchment and disposal system for the saline water is provided, and as provided in 10.2 of this guideline.
- ◆ The HMC will clean maintenance shop sumps regularly during the salt/sand application season to minimize the amount of salt impacted grit in the system.

13. Saline Water Containment and Disposal (salt impacted runoff water)

Government owned or previously owned HMY sites require the construction and maintenance of a saline water containment pond. The containment pond must be designed to capture all the runoff from the containment or Designated area.

13.1. Saline Water Containment Pond Design and Construction

The HMC will consider the following when planning the design of a saline water containment pond:

- ◆ The amount of space available in the yard.
- ◆ The topography: The pond will be located in an area down-gradient from the designated area.
- ◆ The number of times a year that it is desirable to remove the brine from the pond.
- ◆ Annual precipitation: Alberta Infrastructure and Transportation recommends that the pond design and operation be based on annual precipitation as opposed to unusual storm events (e.g. 1 in 50 year, 1 in 100 year etc.). The reason for this is the required storage volume will be very high for infrequent storm events compared to average annual precipitation. Precipitation information is available at www.agric.gov.ab.ca.
- ◆ The size of the designated area: The designated area consists of the salt shed, the mixing area, the pickled material storage pile, handling area, snow storage and the saline water containment pond.
- ◆ The freeboard in the containment pond: Sufficient freeboard in the pond needs to be provided for normal storm events. Where possible pond water should back up onto the designated area to provide additional runoff storage.
- ◆ The containment pond liner: Heavy polyethylene liner material that is UV protected and resistant to chemicals is required and installed as per manufacturer's specification. Particular attention must be paid to the bedding material for the liner.

- ◆ The preceding design information is intended to assist with basic design and is not intended to be all the information that needs consideration. Site specific information is required (e.g. topographical survey) to complete the design. Alberta Infrastructure and Transportation, Site and Environmental Services, is available to liaison with the HMC on pond design and approve proposals prior to construction on government owned HMYs.
- ◆ The saline water containment pond liner will be inspected annually. The process and findings will be documented in the onsite log book.

13.2. Saline Water Disposal

- ◆ The HMC will ensure that all runoff from the designated area is collected in the saline water containment pond and the HMC must remove water when the levels reach the designed high water line to ensure adequate free board is available. The designated high water line will be clearly indicated on the pond structure.
- ◆ The HMC will remove the saline water from site to an acceptable disposal location. Note: Acceptable disposal locations are salt-water injection wells or other locations accepted by Alberta Environment.
- ◆ The HMC will not under any circumstances discharge salt impacted water from the containment ponds at the site. Note: Even though the designated area may have been washed down and appears clean there will be residual salt. Even small amounts of salt discharged at the site repeatedly will have a cumulative effect, which is not acceptable.
- ◆ The HMC will keep a log on site of all disposals. The information in the log will include dates, approximate volumes pumped, and manifests/receipts from disposal sites.

14. Site Drawings and Sketches

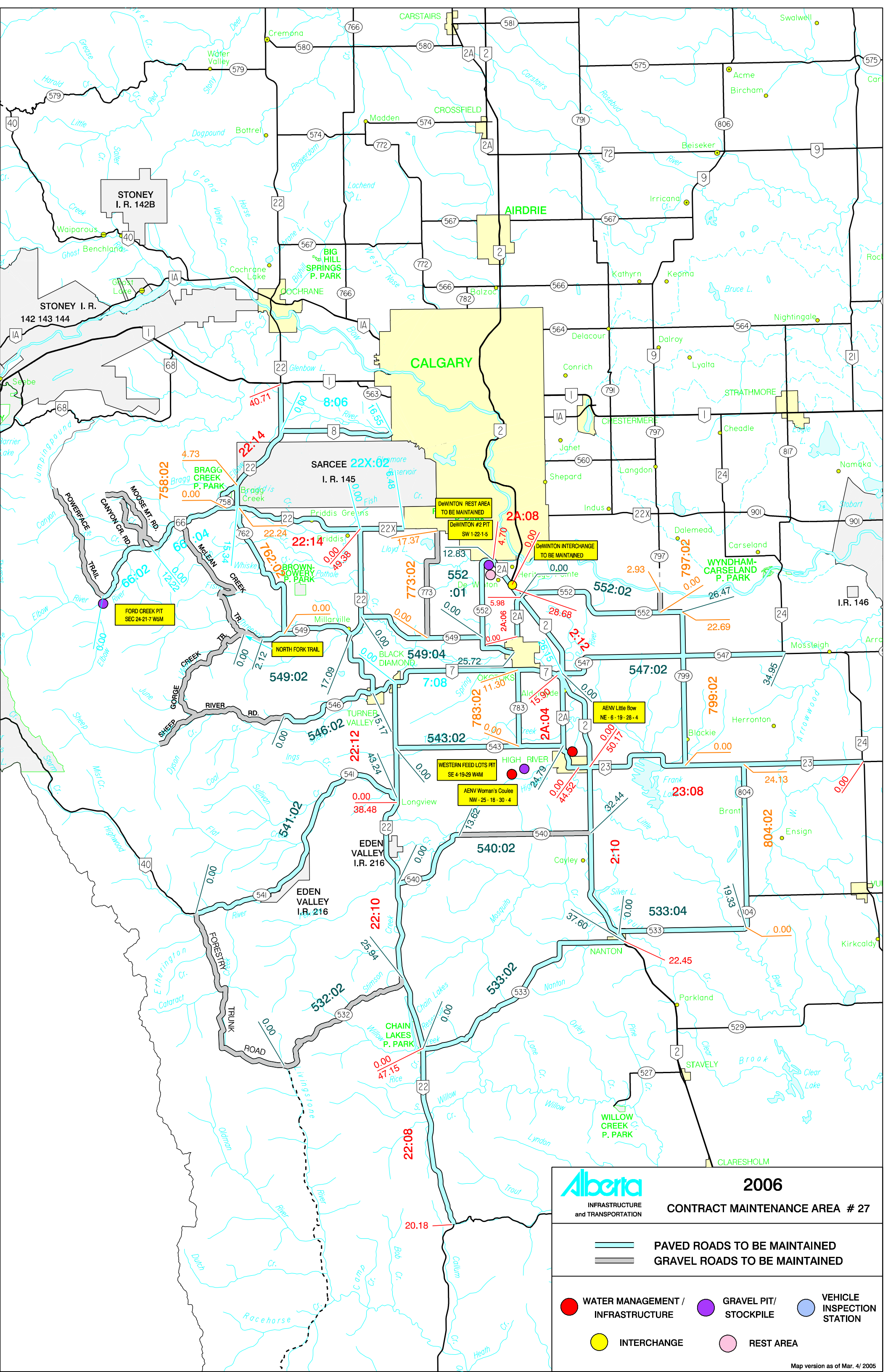
- ◆ The HMC will keep site drawings showing locations of all building improvements and storage areas.
- ◆ The HMC will keep site drawings showing topographical elevations and site drainage flow directions.
- ◆ The HMC will keep engineered construction drawings for the saline water containment pond and associated apparatus.
- ◆ The HMC will keep sketches that detail contaminant storage areas, tanks and containers.

15. APPENDIX A

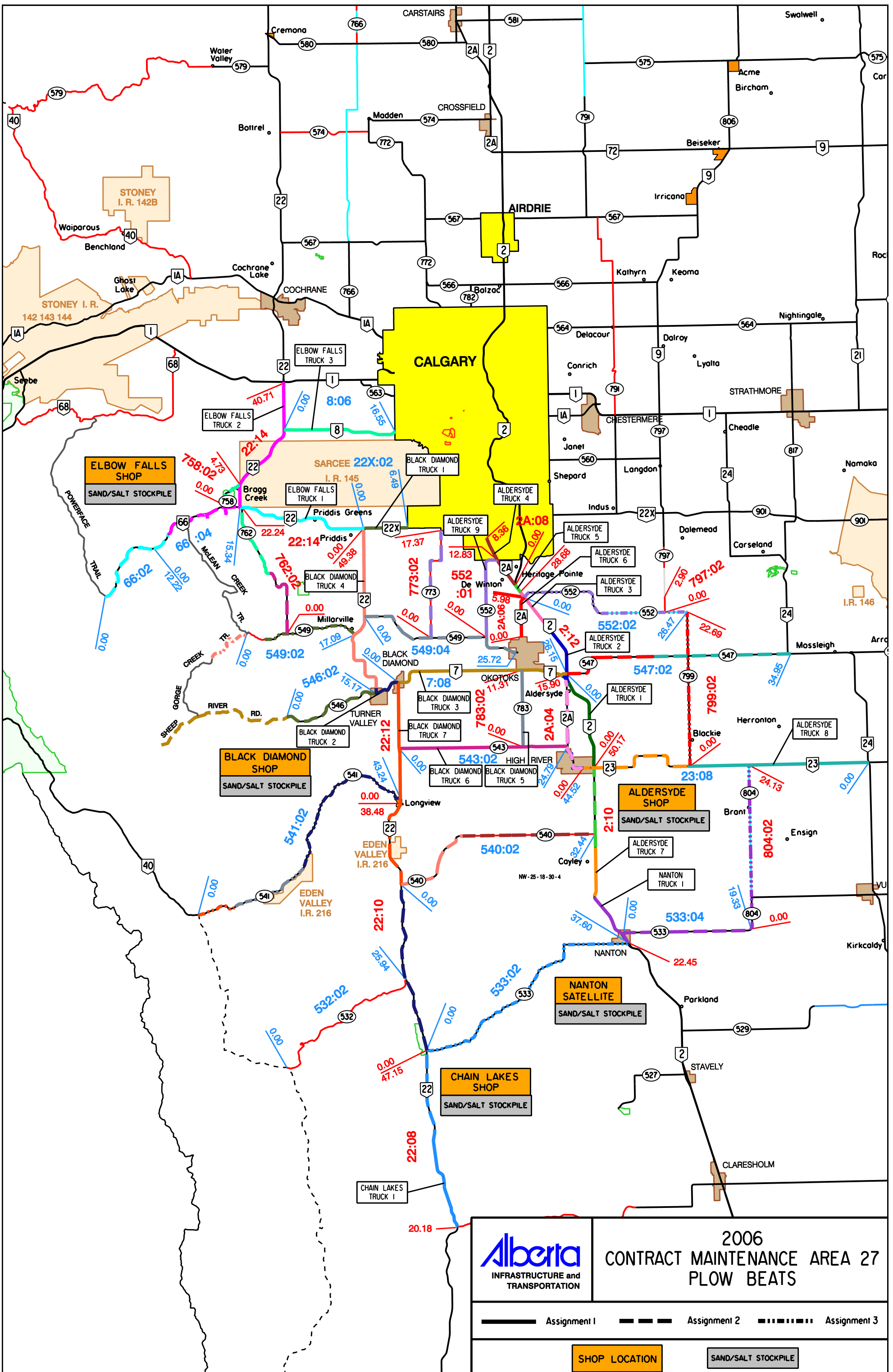
The following communities are known by Alberta Environment to have sensitive ground water supplies and to obtain water from shallow aquifers referred to in priority 1 sites.*

Village of Andrew
Village of Bon Accord
Town of Canmore
Village of Chauvin
Village of Cremona
Municipality of Crowsnest Pass
Village of Delburne
Town of Eckville
Village of Entwistle
Village of Forestberg
Village of Ft. Assiniboine
Town of Hardisty
Town of High River
Town of Killam
Village of Longview
Village of Lougheed
Town of Okotoks
Town of Oyen
Village of Rosalind
Village of Sedgewick
Town of Smoky Lake
Town of Sundre
Town of Turner Valley

* This list was developed through the former MUST Program (Management of Underground Storage Tanks) for incorporation into the 1992 Alberta Fire Code to identify specific communities where secondary containment would be requirement for installation of underground petroleum storage tanks.



- PAVED ROADS TO BE MAINTAINED
- GRAVEL ROADS TO BE MAINTAINED
- WATER MANAGEMENT / INFRASTRUCTURE
- GRAVEL PIT / STOCKPILE
- VEHICLE INSPECTION STATION
- INTERCHANGE
- REST AREA



By separate contract with the Landlord (the "Maintenance Contract"), the Tenant has agreed to provide highway maintenance services in a geographic area of the Province in which the Land is located;

The purpose of this Agreement is to provide for the lease of the Land and Buildings (collectively the "Demised Premises") to the Tenant;

In this Lease, the "Province" means Her Majesty the Queen in right of Alberta, as represented by the Minister of Infrastructure and Transportation and the "Purchaser" means any other party that becomes the owner of the Demised Premises;

For clarity, any reference to the Landlord in this Lease means:

- (a) the Province, in respect of any period of time during which the Province is the owner of the Demised Premises; and
- (b) any Purchaser in respect of any period of time during which such Purchaser is the owner of the Demised Premises.

The parties agree as follows:

1. **TERM**

- 1.1 (a) The Landlord hereby leases the Demised Premises to the Tenant for a term of _____ years and _____ months commencing _____, 200__ and expiring _____, 200____.
- (b) The Demised Premises are leased to the Tenant for the primary purpose of operating a highway maintenance facility. The Demised Premises may also be used for any other purpose as may be approved by the Landlord in writing, such approval not to be unreasonably withheld.
- (c) The Tenant acknowledges that the Demised Premises are satisfactory for the purpose of operating a highway maintenance facility and the Tenant agrees to occupy the Demised Premises in an "as is" condition at the commencement date of this Lease.

1.2 If, during the term of this Lease, the Maintenance Contract is terminated or expires and is not renewed, then either party may terminate this Lease upon not less than 30 days' notice in writing to the other party.

2. **RENT**

- 2.1 (a) The Tenant shall pay to the Landlord during the term the annual rent of \$_____ payable monthly in even portions of \$_____.
- (b) The monthly rental amount is payable on or before the first day of each calendar month.

ALTERNATE Section 2.1(b) for Partial Months

- (b) For the period _____, _____ to _____, _____ the portion of annual rent payable is \$_____ and for the period _____, _____ to _____, _____ the portion of annual rent payable is \$_____. For each such period, the rent is payable on the first day of the period. For the balance of the term of this Lease, the monthly rental amount is payable on the first day of each calendar month.

- (c) Cheques shall be payable to the Minister of Finance and delivered to:

ALBERTA INFRASTRUCTURE AND TRANSPORTATION
FINANCE

2ND FLOOR, 6950 - 113 STREET

EDMONTON, ALBERTA

T6H 5V7

TELEPHONE NO.: (780) 427-3386

or at such other place as the Landlord may from time to time notify the Tenant in writing.

- (d) Each of the Tenant's rental cheques shall be accompanied by a statement detailing all leases covered by the cheque (Landlord's file number reference, the amount being paid for each lease and the time period covered by the payment).

2.2 This is a net lease and all costs and obligations relating to the Demised Premises, whether or not referred to, now existing or contemplated by the parties, are the responsibility of the Tenant unless specifically provided to the contrary herein.

- 2.3
- (a) In the event that an agreement is reached by the Province to sell the Demised Premises, the Province or any Purchaser of the Demised Premises may notify the Tenant to pay to the Province, or the Purchaser as the case may be, a security deposit in the amount equal to 3 months rental under this Lease plus the Federal Goods and Services Tax.
 - (b) The Tenant will pay the security deposit within 30 days of receipt of such notice.
 - (c) This provision to require the Tenant to provide a security deposit may only be utilized on one occasion.
 - (d) The Landlord may use the security deposit to:
 - (i) Reimburse the Landlord, on expiry or termination of this Lease, for the cost of:
 - (A) repairing any damage to the Demised Premises caused or permitted to be caused by the Tenant or its invitees that is not repaired by the Tenant at all or to the Landlord's satisfaction; and
 - (B) restoring the Demised Premises to a reasonable state of cleanliness;

- (ii) Pay the Landlord any amount due the Landlord by the Tenant which remains unpaid in accordance with the provisions of this Lease; and
 - (iii) Compensate the Landlord for any costs or damages suffered by the Landlord as a result of the Tenant failing to carry out any provision of this Lease.
- (e) The use of the security deposit in accordance with this Lease constitutes satisfaction of the Tenant's obligations to repair, restore or make payment to the Landlord, only to the amount of the security deposit so used. The Tenant shall remain liable for any costs of repair and restoration, and any other amounts due to the Landlord, in excess of the amount of the security deposit so used, and the Landlord shall be entitled to all of its remedies at law to obtain satisfaction of the same.
- (f)
 - (i) The Landlord is not required to pay to the Tenant any interest on the security deposit.
 - (ii) The Landlord is entitled to retain any interest and profit resulting from the investment of the security deposit.
- (g)
 - (i) The Landlord shall within a reasonable period of the termination of this Lease return to the Tenant the security deposit or such balance remaining, if any, after use by the Landlord in accordance with this Lease.
 - (ii) If all or a portion of the security deposit is used by the Landlord, the Landlord shall also provide the Tenant with a statement of account showing the amount of the security deposit used and for what purposes.
 - (iii) The security deposit, or balance thereof, and statement of account may be forwarded by the Landlord to the Tenant by registered mail to the Tenant's address for notices under this Lease.

- (h) If during the term of this Lease, the security deposit or a portion thereof is used by the Landlord, the Tenant will reinstate the security deposit to its full amount within 30 days of notice from the Landlord of the amount outstanding.

2.4 If and so long as the Province remains the Landlord under this Lease, the Landlord may, by way of set-off against amounts payable to the Tenant under the Maintenance Contract:

- (a) Reimburse the Landlord, on expiry or termination of this Lease, for the cost of:
 - (i) repairing any damage to the Demised Premises caused or permitted to be caused by the Tenant or its invitees that is not repaired by the Tenant at all or to the Landlord's satisfaction; and
 - (ii) restoring the Demised Premises to a reasonable state of cleanliness;
- (b) Pay the Landlord any amount due the Landlord by the Tenant which remains unpaid in accordance with the provisions of this Lease; and
- (c) Compensate the Landlord for any costs or damages suffered by the Landlord as a result of the Tenant failing to carry out any provision of this Lease.

3. **TAXES, UTILITIES AND OTHER CHARGES**

3.1 The Tenant is not responsible for the payment of any amounts in respect of the Demised Premises for grants in place of taxes, property taxes, local improvement charges or other charges under the Municipal Government Act, R.S.A. 2000, c.M-26, as amended and revised from time to time.

3.2 The Tenant shall pay when due business taxes, license fees, telephone charges and all costs and charges relating to the installation, extension, repair and maintenance of and consumption of utilities in and about the Demised Premises, which utilities generally comprise electricity, natural gas for heating, water and sewer, and other tenant's charges of a similar nature that may be properly assessed or charged against the Tenant with respect to the Demised Premises.

3.3 The Tenant shall pay to the Landlord any amount payable from time to time by the Tenant to the Landlord in accordance with the Federal Goods and Services Tax (GST) and accruing in respect of rental or other payments pursuant to this Lease. The amount of any payment set forth in this Lease does not include GST unless specifically stated to the contrary herein.

4. **ASSIGNMENT OR SUBLETTING**

- 4.1 (a) The Tenant shall have no right to assign the within Lease, or sublet the Demised Premises, or any part thereof, during the term of this Lease without the prior written approval of the Landlord which approval is not to be unreasonably withheld. The parties agree that it is reasonable for the Landlord to withhold approval of any assignment or subletting that is deemed by the Landlord in its sole discretion to present a risk of environmental contamination at the Demised Premises.
- (b) The Tenant agrees that it will not request approval of an assignment or sublease under this Section 4 unless the Tenant has obtained the prior written approval of the Municipality, in which the Demised Premises are located, to the proposed use of the Demised Premises by the assignee or Subtenant. The Tenant will provide a true copy of such approval with its request to the Landlord.

4.2 In granting any approval under this Section 4, the Landlord may impose any conditions on the Tenant or the Subtenant as the Landlord deems appropriate in its sole discretion.

4.3 The Tenant agrees that any approved sublease of the Demised Premises granted by the Tenant pursuant to this Section 4 will bind the Subtenant to all of the obligations applicable to the Tenant under Section 9 "Contaminants and Environmental Conditions" of this Lease.

4.4 For clarity and without limiting the generality of Clause 4.1, the provisions of this Section 4 will apply to any existing Sublease of the Demised Premises which the Tenant wishes to continue, renew or extend into the term of this Lease, notwithstanding any previous approval which may have been provided by the Landlord.

4.5 No assignment or subletting shall in any way release or relieve the Tenant of its obligations under this Lease.

4.6 The Landlord's approval of an assignment or subletting under this Lease shall not be deemed to be an approval of any subsequent assignment or subletting.

4.7 The Tenant will, upon request of the Landlord, provide the Landlord with true copies of any assignment or subletting documentation whether such request is before or after approval by the Landlord.

5. **NUISANCE**

5.1 The Tenant will not do or fail to do anything which results in a nuisance or which causes the rate of insurance upon the Buildings, or any part thereof, to be increased. If the rate of insurance on the Buildings is increased and the Tenant is responsible, the Tenant shall pay to the Landlord the amount of the increase.

5.2 If notice of cancellation is given on any insurance policy on the Buildings or if any such policy is refused by an insurer by reason of the Tenant's use of the Demised Premises, the Tenant shall forthwith remedy such use upon request in writing by the Landlord. If the Tenant fails to do so forthwith the Landlord at its option may terminate this Lease by giving the Tenant notice in writing providing a reasonable period, under the circumstances, for the Tenant to vacate the Demised Premises.

6. **INDEMNITY**

6.1 (a) The Tenant shall indemnify and hold harmless the Landlord, its employees and agents, from any and all claims, demands, actions and costs whatsoever that may arise, directly or indirectly, out of any act or omission of the Tenant, its employees or agents, in the performance by the Tenant of this Lease and all other business operations.

(b) Such indemnification will survive this Agreement.

6.2 (a) The Landlord shall indemnify and hold harmless the Tenant, its employees and agents, from any and all claims, demands, actions and costs whatsoever that may arise, directly or indirectly, out of any act or omission of the Landlord, its employees or agents, in the performance by the Landlord of this Lease and all other business operations.

(b) Such indemnification shall survive this Agreement.

7. **LIMITATION OF LANDLORD'S LIABILITY**

7.1 The Tenant shall not be entitled to damages from the Landlord on account of:

- (a) failure of utility services or any other services;
- (b) damage occasioned by water, snow or ice or by any break in any pipe, tank or fixture;
- (c) damage caused by any electric or other wiring;
- (d) damage caused by occupants of neighbouring property; or
- (e) changes to the Buildings or their services that are made with reasonable expedition.

8. **TENANT'S INSURANCE**

8.1 During the term of this Lease, the Tenant shall be responsible for insuring all its owned property on or in the Demised Premises, including all of its improvements, furniture, fittings, fixtures and stock-in-trade in amounts adequate to cover the repair or replacement of such property.

8.2 The Tenant shall, at its own expense and without limiting its liabilities herein, insure its operations under a contract of General Liability Insurance, in accordance with the Alberta Insurance Act, in an amount not less than \$2,000,000.00 inclusive per occurrence, insuring against bodily injury, personal injury and property damage including loss of use thereof. Such insurance shall extend to include All Risks Tenants' Legal Liability coverage in an amount adequate to cover the Tenant's legal liability for the Premises.

8.3 The Tenant will provide to the Landlord a detailed certificate of insurance as evidence of each insurance policy prior to occupancy of the Demised Premises by the Tenant.

8.4 All required insurance shall be endorsed to provide the Landlord with 30 days advance notice of cancellation or material change.

8.5 The Tenant will not place property insurance on the Buildings.

8.6 The Tenant hereby waives any right of recourse it may have or obtain against the Landlord, its employees or agents, with regard to loss or damage to the Tenant's property located on or in the Demised Premises, and shall make its insurer aware of this waiver.

9. **CONTAMINANTS AND ENVIRONMENTAL CONDITIONS**

9.1 In this Lease:

- (a) "Contaminant" means any physical, chemical, biological or radiological substance that has or may have an adverse affect on the environment; and
- (b) "Release" has the same meaning as the word "release" in the Environmental Protection and Enhancement Act, R.S.A. 2000, c.E-12 (the "Environmental Protection Act"), as amended and revised from time to time.

9.2 (a) Without limiting Clause 11.3, the Tenant will comply with all applicable laws relating to any Contaminant and the protection of the environment at the Demised Premises and neighbouring properties.

- (b) The Tenant will conduct its operations in a manner which will:
 - (i) protect the Demised Premises and neighbouring properties from contamination;
 - (ii) avoid situations hazardous to the health of individuals at the Demised Premises and neighbouring properties; and
 - (iii) without limiting Clause 11.3, comply with the Environmental Protection Act, the Alberta Fire Code and any other legislation pertaining to the environment.
 - (c) The Tenant will not permit the Release of any Contaminant at the Demised Premises or elsewhere.
 - (d) The Tenant is responsible for the full cleanup of the Demised Premises and any neighbouring properties affected, to the satisfaction of the Landlord in its sole discretion, of any Contaminant Release at the Demised Premises during the term of this Lease and such obligation will survive this Lease.
 - (e) For clarity, and notwithstanding any other terms and conditions of this Lease, the Tenant is not responsible for the cleanup of any Contaminant Release at the Demised Premises prior to the initial occupancy of the Demised Premises by the Tenant, whether under this Lease or a prior Lease, or as a result of any act of the Landlord, its agents, employees or contractors.
- 9.3
- (a) (i) The Tenant will submit to the Landlord for approval a written plan (the "Environmental Management Plan") prepared in accordance with the document entitled "Environmental Management Plan Guidelines Highway Maintenance Yards" dated January 24, 2003 as revised from time to time (the "EMP Guidelines").
 - (ii) The Tenant acknowledges receipt of a copy of the EMP Guidelines.

- (iii) The Landlord in its sole discretion will in writing to the Tenant either approve the Environmental Management Plan or any resubmitted Environmental Management Plan in accordance with Subclause 9.3(a)(iv) or provide reasons why the Environmental Management Plan is not acceptable to the Landlord.
 - (iv) Within 10 days of notice that the Environmental Management Plan is not approved by the Landlord, the Tenant will revise and resubmit the Environmental Management Plan to the Landlord for approval.
- (b)
 - (i) The Landlord's consent under the Subclause 9.3(a) is not for any technical or regulatory purpose and is only to protect its interest as Landlord and without limiting the generality of the foregoing is not to be construed as providing any permit, license or any other approval pursuant to the Environmental Protection Act or any other applicable legislation.
 - (ii) Approval of the Environmental Management Plan by the Landlord will not relieve the Tenant of any of the Tenant's obligations under this Lease and the Tenant is responsible for rectifying any deficiency in or failure of the approved Environmental Management Plan and for making any revision to the approved Environment Management Plan requested from time to time by the Landlord acting reasonably.
 - (iii) Any revision to the Environmental Management Plan, required by virtue of Subclause 9.3(b)(ii) will be submitted to the Landlord for approval in accordance with Subclause 9.3(a).

- (c) (i) The Tenant may not conduct any operations at the Demised Premises until its Environmental Management Plan has been approved by the Landlord. For clarity, in the event of a deficiency or failure of the approved Environmental Management Plan or a requested amendment to the approved Environmental Management Plan in accordance with Subclause 9.3(b)(ii), the Tenant may continue its operations except as it relates to such deficiency, failure or amendment
 - (ii) Notwithstanding Subclause 9.2(c), the Tenant shall conduct its operations including but not limited to salt/sand operations at the Demised Premises strictly and fully in accordance with the Environmental Management Plan as approved by the Landlord, the EMP Guidelines and this Lease.
 - (ii) Where there is a conflict between the Environmental Management Plan, the EMP Guidelines and this Lease then the conflict will be reconciled in favor of the most stringent of the conflicting provisions as determined by the Landlord, acting reasonably.

- 9.4 (a) Notwithstanding Clause 9.7, the Landlord may during the term hereof enter and use the Demised Premises for the purposes of:
 - (i) removing any underground fuel tank (provided the Landlord backfills and levels any Land disturbed);
 - (ii) undertaking land farming operations of fuel contaminated soils;and
 - (iii) undertaking environmental assessments, investigations and site remediation.

- (b) The Landlord will use its best efforts to ensure its activities under Subclause 9.4(a) do not unreasonably interfere with the operations of the Tenant.

9.5 (a) The Tenant shall indemnify and hold harmless the Landlord, its employees and agents, from any and all claims, demands, actions and costs whatsoever that may arise, directly or indirectly, out of the Release of any Contaminant at the Demised Premises, or any actions which are otherwise in non-compliance with the Environmental Protection Act, or predecessor legislation, during the term of the Lease except as may result from the Landlord's operations under Clause 9.4.

(b) Such indemnification will survive this Lease.

9.6 (a) The Landlord shall indemnify and hold harmless the Tenant, its employees and agents, from any and all claims, demands, actions and costs whatsoever that may arise, directly or indirectly, out of the Release of any Contaminant at the Demised Premises, or any actions which are otherwise in non-compliance with the Environmental Protection Act, or predecessor legislation, prior to the initial occupancy of the Demised Premises by the Tenant, whether under this Lease or a prior Lease, or as a result of any act of the Landlord, its agents or employees.

(b) Such indemnification shall survive this Lease.

9.7 The Tenant will permit the Landlord, its employees and agents, to enter the Demised Premises at all reasonable times for the purpose of determining compliance by the Tenant with the obligations under this Section 9. If the Tenant is in any way failing to comply with any obligation under this Section 9, the Landlord and its agents may, but are not obliged to, enter the Demised Premises and rectify such failure and the Landlord shall be entitled to recover the cost from the Tenant as rent upon invoice.

9.8 The Province may issue demerit points to the Tenant under the Maintenance Contract in the event of any default or series of defaults by the Tenant under the provisions of this Section 9 that the Province, in its sole discretion, considers material.

10. **REFUSE**

10.1 The Tenant will not allow refuse, garbage or other loose or objectionable matter to accumulate in or about the Demised Premises and will at all times keep and at the termination of the said term yield up the Demised Premises in a clean condition.

11. **REPAIRS AND MAINTENANCE**

- 11.1 (a) (i) In this Clause, "Structural Elements" means the Building's foundation, floors, columns, exterior walls, roof, roofing, chimneys and vents, exterior cladding, exterior windows and doors and flashings but excluding those items listed in paragraph 4 and paragraph 24 through paragraph 28, inclusive, of Schedule "B".
- (ii) The Landlord shall at all times keep the Structural Elements of the Buildings in good order and condition and shall make all needed repairs and replacements thereto as required from time to time during the term of this Lease.
- (b) Subject to Subclause 11.1(a), the Tenant shall, in accordance with all applicable codes, at all times keep the Demised Premises, including the mechanical, electrical and other utility systems servicing the Demised Premises and any appurtenances thereto and any and all improvements now or hereafter executed or installed in or about the Demised Premises,

in good order and condition and shall make all needed repairs and replacements thereto as required from time to time during the term of this Lease. For clarity, but without limiting the generality of the foregoing, the Tenant is responsible for the items listed in Schedule "B" attached hereto, if applicable, for the Demised Premises.

- (c) The Tenant is responsible for any damage to the Demised Premises occasioned by the negligence or actions of the Tenant, its employees or agents.

11.2 The Tenant will permit the Landlord, its employees and agents, to enter the Demised Premises at all reasonable times for the purpose of viewing the condition thereof. If repair or maintenance is required and is the responsibility of the Tenant, the Tenant shall within 10 days of receipt of written notice given by or on behalf of the Landlord, commence and proceed diligently with the completion of the repair or maintenance referred to in the notice. If the Tenant has not complied with the notice within 10 days from the date of receipt thereof, the Landlord and its agents may enter the Demised Premises and execute such repair or maintenance and the Landlord shall be entitled to recover the cost from the Tenant as rent upon invoice.

- 11.3 (a) The Tenant shall comply with the requirements of all applicable laws with respect to its use of the Demised Premises.
- (b) Without limiting the generality of the foregoing, the space leased under this Lease may be subject to the provisions of the Protection from Second-Hand Smoke in Public Buildings Act, R.S.A. 2000, c.P-30, as amended and revised from time to time.

11.4 The Province may issue demerit points to the Tenant under the Maintenance Contract in the event of any default or series of defaults by the Tenant under the provisions of this Section 11 that the Province, in its sole discretion, considers material.

12. **LIENS**

12.1 (a) During the term of this Lease, the Tenant shall not suffer or permit any builders' liens or other liens for work, labour, services or material relating to work contracted for by or on behalf of the Tenant or any agent or employee of the Tenant to remain filed against the Land.

(b) The Tenant shall, to the satisfaction of the Landlord, indemnify and hold the Landlord harmless against the cost of removing any such liens and against all liability for any damages, interest, penalties and expenses (including reasonable legal costs) resulting from or incurred in connection with such liens that are not forthwith removed by the Tenant.

13. **TENANT'S NOTICE**

13.1 The Tenant shall promptly advise the Landlord of any accidental loss or damage to the Demised Premises, its fixtures or equipment, and shall not make any repair to or replace any such damaged or lost property of the Landlord without the Landlord's prior written consent. The Tenant must, however, take steps required to prevent further loss or damage from occurring.

13.2 The Tenant shall immediately advise the Landlord of any injury or accident which may result in injury occurring on, in or about the Buildings or the Demised Premises.

14. **REGULATIONS**

14.1 The Tenant, its agents and employees, shall observe any reasonable rules and regulations that the Landlord may make relating to the Demised Premises.

15. **SIGNS**

15.1 The Tenant may, at its sole cost, place signs on the Demised Premises with the prior consent of the Landlord, acting reasonably. At the expiration or termination of this Lease, as the case may be, the Tenant shall remove any signs and any resulting damage to the Demised Premises shall be repaired by the Tenant to the satisfaction of the Landlord.

16. **QUIET ENJOYMENT**

16.1 The Landlord has good right and full power to lease the Demised Premises as set out in this Lease. If and so long as the Tenant performs its obligations hereunder, the Tenant shall quietly enjoy the Demised Premises without hindrance by the Landlord, its employees and agents, subject to the provisions of this Lease.

17. **SERVICES**

17.1 The Tenant shall provide caretaking services in the Buildings during the term of this Lease to maintain a reasonable standard of cleanliness.

17.2 The Tenant will make provision for the disposal of the accumulation of its waste materials.

17.3 The Tenant will keep in a clean condition the sidewalks and parking areas which form part of the Land and any adjoining municipal sidewalks, if applicable, and will maintain same free of the accumulation of debris, dust, ice and snow.

17.4 The Tenant shall maintain any landscaped areas on the Land including the cutting of grass and pruning of trees and shrubs.

17.5 The Tenant shall maintain the surfaces of the sidewalks, parking areas and other hard-surfaced areas that may be located on the Land, including the refurbishment or replacement of the surfaces when required in order to retain same in at least the condition existing at the commencement date of this Lease.

18. **REMOVAL OF TENANT'S EQUIPMENT AND TRADE FIXTURES**

18.1 The Tenant reserves all its right, title and interest in and to its trade fixtures and equipment and upon termination of this Lease, the Tenant shall if all rent and monies have been paid, remove from the Demised Premises such trade fixtures and equipment so installed by the Tenant, all of which are hereby deemed and agreed to be personal property. Any removal shall be completed prior to the termination of this Lease and the Tenant shall make good all damage caused by such removal.

19. **DESTRUCTION OR DAMAGE**

19.1 If during the term hereby granted:

- (a) the Buildings are totally destroyed by fire, or other cause; or
- (b) the Buildings are damaged so as to render them unusable or partly unusable for the Tenant's permitted uses, but not to the extent that they are totally destroyed as that expression is defined in this Section;

the Landlord may, within 1 month after the date of damage or destruction, terminate this Lease by giving written notice thereof to the Tenant. In this Section "totally destroyed" means damage or destruction to the extent that in the Landlord's opinion the Buildings cannot be made ready for the Tenant's reoccupancy within 6 months of the event. Provided however, that the Tenant shall in no way be released from its liability for damage to the Buildings where such damage is caused by the negligence of the Tenant, its employees or agents.

20. **REMODELLING**

20.1 The Tenant shall not carry out any alterations to the Demised Premises without the prior written approval of the Landlord, which approval shall not be unreasonably withheld. However, the Landlord may in its sole discretion withhold consent in cases where the structure of any of the Buildings, or any of the Buildings' mechanical or electrical systems are affected.

20.2 All alterations, additions or improvements made by the Tenant, excepting moveable furniture and other tenants' fixtures, shall be and remain the property of the Landlord on the expiration of the term.

- 20.3 (a) Notwithstanding Clause 20.2, the Landlord may on notice in writing to the Tenant within 3 months of the expiry of this Lease require the Tenant to remove and make good any alteration, addition or improvement made by the Tenant.
- (b) Such work will be completed by the Tenant within a reasonable period of time.
- (c) The Tenant may enter the Demised Premises for the purpose of completing such work.

21. **FORCE MAJEURE**

21.1 If the Landlord is unable to perform any of its obligations under this Lease due to any event or circumstance beyond its control, the time for performance of that obligation shall be extended for the period of time that the event or circumstance operates to prevent such performance.

22. **TERMINATION FOR DEFAULT**

22.1 The Tenant shall be deemed to have committed an act of default hereunder if:

- (a) any of the Tenant's goods and chattels located on or in the Demised Premises liable to distress are seized or taken in execution or attachment by any creditor of the Tenant;
- (b) the Tenant makes an assignment for the benefit of its creditors, or becomes bankrupt or insolvent or takes the benefit of any enactment for bankrupt or insolvent debtors or becomes involved in voluntary or involuntary winding-up proceedings or if a receiver shall be appointed for the business, property, affairs or revenues of the Tenant;
- (c) the Tenant fails to perform any obligation or comply with any provision of this Lease and persists in such failure 3 days after receiving written notice from the Landlord to rectify such failure;
- (d) part or all of the rent or other amounts hereby reserved to be paid by the Tenant are not so paid, and such default continues for 5 days after the due date thereof; or
- (e) the Tenant abandons or purports to surrender the Demised Premises or repudiates this Lease or makes a bulk sale of its goods.

22.2 Upon the Tenant committing an act of default, the Landlord may terminate this Lease upon giving the Tenant written notice of termination, whereupon the Landlord shall be entitled to enter upon and retake the Demised Premises.

22.3 In addition to the rights of the Landlord under Clause 22.2, the Province may, upon the Tenant committing an act of default, issue demerit points to the Tenant under the Maintenance Contract.

23. **ARBITRATION**

23.1 In the event of a dispute arising between the Landlord and the Tenant regarding the interpretation, application, operation or any alleged violation of this Agreement, such dispute shall be determined by arbitration in accordance with this Section.

23.2 The party alleging a dispute shall notify the other party in writing of the details of the nature and extent of the dispute.

23.3 Within 7 days from receipt of notice, the opposite party shall in writing notify the party preparing the initial notice of any matter referred to in the initial notice for which it accepts responsibility and proposes to take remedial action.

23.4 The terms of reference for arbitration shall be those areas of dispute referred to in the initial notice with respect to which the opposite party has not admitted responsibility or proposed to take remedial action to the satisfaction of the first party.

23.5 Each party shall, within 7 days of the establishment of the terms of reference pursuant to Clause 23.4, appoint an arbitrator and the two arbitrators shall within 7 days of their appointment appoint a third member of the arbitration committee who will act as chairman. However, if the two arbitrators fail to appoint a chairman, then both parties or either of them may apply to a Justice of the Court of Queen's Bench of Alberta to have the chairman appointed.

23.6 If either party fails to appoint an arbitrator within the 7 day period outlined in Clause 23.5, the arbitrator appointed by the one party shall be deemed to be the arbitration committee and a decision of such arbitrator shall be binding upon the parties.

23.7 Within 30 days of the establishment of the arbitration committee, or such further period as may be agreed upon by the parties, the arbitration committee shall resolve the matters in dispute referred to in the terms of reference.

23.8 The decision of the majority of the arbitration committee shall be the decision of the committee.

23.9 The decision of the arbitration committee shall be binding upon the parties.

23.10 The cost of the arbitration committee shall be borne equally by the parties.

24. **OVERHOLDING**

24.1 Should the Tenant remain in possession of the Demised Premises after the termination of the term without special agreement, a tenancy from year to year shall not be created by implication of the law and the Tenant shall be deemed to be a monthly tenant only at a monthly rental to be established by the Landlord and otherwise in accordance with the terms of this Lease.

25. **PRORATING OF PAYMENTS**

25.1 Where an amount is payable by the Tenant or by the Landlord in respect of a period of time where only part of the period of time falls within the term of the Lease, the amount will be prorated.

26. **ADDRESS FOR NOTICES**

26.1 Whenever in this Lease, it shall be required or permitted that notice or demand be given or served by either party to this Lease to or on the other party, such notice or demand shall be in writing and may be given personally or by prepaid registered letter addressed to the other for which intended at the address hereunder, or to such other address as may be substituted therefor from time to time by proper notice and if mailed, shall be deemed to be given 48 hours after it is mailed as hereinbefore specified:

TO THE LANDLORD AT:

DIRECTOR, LEASING

ALBERTA INFRASTRUCTURE AND TRANSPORTATION

3RD FLOOR, 6950 - 113 STREET

EDMONTON, ALBERTA

T6H 5V7

TO THE TENANT AT:

ATTENTION: _____

27. **SALE OR LEASE OF THE DEMISED PREMISES**

27.1 The Landlord, or its agents and their invitees, may at all reasonable times and on reasonable notice to the Tenant, enter the Demised Premises for the purpose of showing the Demised Premises to prospective purchasers and prospective tenants or conducting any other activity reasonably required in connection with the sale of the Demised Premises by the Landlord or the lease of the Demised Premises by the Landlord upon expiry or termination of this Lease.

27.2 The Province, or its agents and their invitees, may at all reasonable times and on reasonable notice to the Tenant, enter the Demised Premises for the purpose of showing the Demised Premises to prospective highway maintenance contractors or conducting any other activity reasonably required in connection with a highway maintenance contract tender call.

27.3 The Landlord, or its agents, may place "For Sale" and "For Lease" signs in reasonable locations on the Demised Premises.

27.4 In the event of a sale of the Demised Premises, the Tenant will attorn to and become the Tenant of the Purchaser in accordance with the terms and conditions of this Lease.

28. **NON-WAIVER**

28.1 The waiver by the Landlord or the Tenant of the strict performance of any condition, covenant or agreement herein contained shall not constitute a waiver of or abrogate such or any other condition, covenant or agreement nor shall it be deemed a waiver of any subsequent breach of the same or of any other condition, covenant or agreement.

29. **TIME OF ESSENCE**

29.1 Time is of the essence of this Lease.

30. **INTERPRETATION**

30.1 The headings used throughout this Lease are inserted for reference purposes only and are not to be considered or taken into account in construing the terms and provisions of any paragraph or section and are not to be deemed in any way to qualify, modify, or explain the effects of any such provisions or terms.

30.2 The words "herein", "hereof", "hereby", "hereunder" and words of similar import refer to this Lease as a whole and not to any clause, section or paragraph hereof.

31. **SUCCESSORS OR ASSIGNS**

31.1 This Lease shall enure to the benefit of and be binding upon the Landlord and the Landlord's successors and assigns and upon the Tenant and the Tenant's successors.

31.2 The Tenant does hereby accept this Lease of the Demised Premises as above set forth.

IN WITNESS WHEREOF the Landlord has executed this Agreement this day and year first above written.

AND THE TENANT has hereunto affixed its corporate seal duly attested by the hands of its officers duly authorized in that behalf, as of the _____ day of _____ A.D. 20 ____ .

LANDLORD:

Signed by the Minister of Infrastructure and Transportation of the Province of Alberta, or his duly authorized representative, and sealed with his Seal of Office.

DIRECTOR, LEASING
DEPARTMENT OF INFRASTRUCTURE
AND TRANSPORTATION

TENANT:

PER _____ (Seal)

PER _____

SCHEDULE "B"

TENANT RESPONSIBILITIES

The Tenant is responsible for the following:

1. Window washing.
2. Wash ceilings and walls to remove soot caused by diesel exhaust.
3. Garbage removal from the Demised Premises.
4. Overhead door and salt shed door maintenance, including all moving parts, rollers, tracks, hinges and lifting and lowering mechanisms.
5. Preventative maintenance and repair of the mechanical, humidification, electrical, high voltage, security, computerized building control, elevators and architectural systems.
6. Maintenance of fire systems including testing and inspection of fire extinguishers, fire hoses, sprinkler systems, fire alarms, fire pumps, and emergency lights. This includes maintenance and repair of water backflow preventors.
7. Maintaining a water treatment program for all water, steam and condensate used in the mechanical systems. Where applicable maintain glycol levels in affected systems.
8. Replacement of light bulbs, tubes and ballast.
9. Repair and maintenance of light standards (including bulb replacement).
10. Maintaining and securing site fencing.
11. Performing horticultural services (including weed control) to all of the Lands within the fenced areas, including sewage mounds, the grounds and any areas outside of the fenced-in compound requiring maintenance. This includes municipal property which may extend from the property boundary to adjacent curbs, lanes and streets. Light equipment is required to perform horticultural services on sewage mounds.
12. Spring and fall maintenance of lawn irrigation systems.
13. Repair and maintenance of the shop air compressor, fuel pumps, floor hoists and overhead hoists.

14. Pest control.
15. Cleaning and maintenance of shop sumps, as required, including cleaning of trench drains and replacement of floor grates.
16. Repair and maintenance of sewage disposal systems including septic tank, pumps and cleaning as required. Secure by lock, all manholes and lids on septic tanks and cisterns.
17. Servicing of domestic water wells including repair and maintenance of pumps, pressure systems and water conditioning systems.
18. Proper disposal of used oil.
19. Repair and maintenance of high pressure washers.
20. Maintenance of the gravelled and paved areas inside the compound.
21. Caretaking program to ensure hard surfaced and resilient flooring in office and lunchroom areas is maintained in a manner acceptable to the Landlord, acting reasonably.
22. Repairs, maintenance and replacement of salt pond liners. Pump out the ponds and dispose of contents in a manner acceptable to the Landlord.
23. Repair and maintenance of all interior and exterior signage.
24. Repair or replace locks on man doors, repair and replace weatherstripping on both man doors and overhead doors. Provide for keys to be cut as required and rekeying as required.
25. Replacing caulking, weather seals and broken glass on exterior windows.
26. Repainting of all interior painted surfaces, as reasonably required.
27. Repair, maintenance and replacement of all floor coverings, as reasonably required.
28. Repair and maintenance of all stairs.

INDEX
LEASE AGREEMENT

SECTION

1.	TERM	Page 2
2.	RENT	Page 3
3.	TAXES, UTILITIES AND OTHER CHARGES	Page 6
4.	ASSIGNMENT OR SUBLETTING	Page 7
5.	NUISANCE	Page 9
6.	INDEMNITY	Page 9
7.	LIMITATION OF LANDLORD'S LIABILITY	Page 10
8.	TENANT'S INSURANCE.....	Page 10
9.	CONTAMINANTS AND ENVIRONMENTAL CONDITIONS	Page 11
10.	REFUSE.....	Page 16
11.	REPAIRS AND MAINTENANCE.....	Page 16
12.	LIENS	Page 18
13.	TENANT'S NOTICE.....	Page 18
14.	REGULATIONS.....	Page 19
15.	SIGNS.....	Page 19
16.	QUIET ENJOYMENT.....	Page 19
17.	SERVICES	Page 19
18.	REMOVAL OF TENANT'S EQUIPMENT AND TRADE FIXTURES	Page 20
19.	DESTRUCTION OR DAMAGE.....	Page 20
20.	REMODELLING	Page 21
21.	FORCE MAJEURE	Page 22
22.	TERMINATION FOR DEFAULT.....	Page 22
23.	ARBITRATION.....	Page 23
24.	OVERHOLDING.....	Page 25
25.	PRORATING OF PAYMENTS.....	Page 25
26.	ADDRESS FOR NOTICES.....	Page 25
27.	SALE OR LEASE OF DEMISED PREMISES	Page 26
28.	NON-WAIVER	Page 27
29.	TIME OF ESSENCE.....	Page 27
30.	INTERPRETATION.....	Page 27
31.	SUCCESSORS OR ASSIGNS	Page 28
	SCHEDULE "A".....	SITE PLAN
	SCHEDULE "B"	TENANT RESPONSIBILITIES

LEASE AGREEMENT
(Rents Receivable)

Lease of land and buildings to:

"Highway Maintenance Yard"
_____, Alberta

File: R_____ -2

The parties agree as follows:

1. **DEMISED PREMISES, TERM AND RENT**

1.1 The Landlord leases to the Tenant those Buildings, located in Peter Lougheed Provincial Park, Kananaskis Country, and designated as:

#2 King Creek Drive
#4 King Creek Drive
#6 King Creek Drive
#9 King Creek Drive
#16 King Creek Drive

together with such land as is associated with each dwelling (collectively the "Demised Premises")

for the term of 5 years commencing August 1, 2006 (the "Commencement Date") to and including July 31, 2011 (the "Term"), upon and subject to the covenants and conditions herein contained.

1.2 The Tenant shall be permitted to use the Demised Premises for the sole purpose of the residential accommodation of the Tenant's employees, and the employees' immediate families, who are directly involved in the delivery of the highway maintenance services under the Maintenance Contract (the "Permitted Use"), subject to Section 7.

1.3 (a) The Tenant shall pay to the Landlord for the use of the Demised Premises during the Term the annual rent (the "Annual Rent") of \$39,000.00 payable monthly in advance in even portions of \$3,250.00 beginning on the Commencement Date.

- (b) The Annual Rent payable by the Tenant for the Demised Premises is calculated at the rate of \$650.00 per month per dwelling.

1.4 The Federal Goods and Services Tax ("GST") is not payable on the Annual Rent by the Tenant to the Landlord under this Lease provided the Tenant complies with Section 7 of this Lease.

1.5 Cheques shall be payable to the Minister of Finance and delivered to Alberta Infrastructure and Transportation, Finance, 2nd Floor, 6950 - 113 Street, Edmonton, Alberta, T6H 5V7 (Telephone No.: 427-3386), or to such other place as the Landlord may from time to time notify the Tenant in writing.

1.6 If the Maintenance Contract is terminated during the Term, then either party may terminate this Lease upon not less than 3 full months prior written notice to the other party.

2. **CONDITION OF DEMISED PREMISES**

2.1 The Tenant shall lease and occupy the Demised Premises as of the Commencement Date on the agreement that:

- (a) the Tenant has satisfied itself as to the condition of the Demised Premises and the fitness for its intended use;
- (b) the Tenant accepts the Demised Premises on an "as is, where is" basis; and
- (c) the Landlord does not warrant:
 - (i) the quality, condition or sufficiency of the Demised Premises for any use or purpose;

- (ii) the adequacy of the services, utilities and ancillary facilities either to or on the Demised Premises; or
- (iii) the absence or presence of hazardous substances in, on or under the Demised Premises.

3. **NET LEASE**

3.1 This Lease shall be a completely carefree, absolutely net lease to the Landlord, except as expressly set out herein. Any amount and any obligation which is not expressly declared in this Lease to be the responsibility of the Landlord shall be the responsibility of the Tenant to be paid or performed by or at the Tenant's expense in accordance with the terms of this Lease.

4. **OPERATING COSTS**

4.1 The Tenant shall pay throughout the Term when the same shall become due and payable all costs and charges relating to the installation, extension, repair and maintenance of and consumption of utilities in and about the Demised Premises, which utilities generally comprise electricity, natural gas and propane gas for heating, water and sewer.

5. **TAXES**

5.1 The Landlord is responsible for all property taxes and local improvement charges, with respect to the Demised Premises, payable to the municipality in which the Buildings are located, pursuant to the Municipal Government Act, R.S.A. 2000, c. M-26.

6. **BUSINESS TAXES AND OTHER CHARGES**

6.1 The Tenant shall pay when the same shall become due and payable business taxes, license fees, telephone and cable charges and other tenant's charges of a similar nature that may be properly assessed or charged against the Tenant with respect to the Demised Premises.

7. **ASSIGNMENT OR SUBLETTING**

7.1 The Tenant shall not assign this Lease.

7.2 The Tenant shall not sublease, license or enter into any similar agreement (the "Sublease") for the purpose of the occupancy of a Building, or part thereof, except in accordance with this Section.

7.3 The Tenant shall not Sublease to an individual other than an employee employed for the purpose of the Permitted Use and the employee's immediate family.

7.4 All Subleases shall comply with:

- (a) the Residential Tenancies Act, R.S.A. 2000, c. R017.1, and the Tenant under the Sublease shall be the landlord as that word is defined in the Residential Tenancies Act; and
- (b) Sections 6 and 6.1 of the Excise Tax Act (R.S.C. 1985, c. E-15), Schedule V, Exempt Supplies, Part I, such that, without limiting the generality of the foregoing, the period of continuous occupancy granted to the same employee under the Sublease is at least 1 month.

- 7.5 (a) All Subleases entered into by the Tenant shall provide for vacant possession of the Demised Premises upon termination or expiry of this Lease.
- (b) If the Tenant is unable to comply with Section 7.5(a), notwithstanding any other term of this Lease, the Tenant shall indemnify the Landlord for all costs incurred by the Landlord as a consequence of the failure of the Tenant to provide vacant possession as required.

7.6 The Tenant agrees that any Sublease of the Demised Premises shall not release or relieve the Tenant of its obligations under this Lease.

7.7 The Tenant shall provide the Landlord with true copies of any Sublease respecting the Demised Premises upon the request of the Landlord.

8. **NUISANCE**

8.1 The Tenant will not do or permit anything to be done, nor make or permit any omission to be made, which shall result in a nuisance, or which shall cause the rate of insurance upon the Buildings, or any part thereof, to be increased. If notice of cancellation shall be given respecting any insurance policy or if any insurance policy upon the Buildings, or any part thereof, shall be cancelled or refused by an insurer by reason of the Tenant's use or occupation of the Demised Premises or any part thereof, the Tenant shall forthwith remedy or rectify such use or occupation upon being requested to do so in writing by the Landlord, and if the Tenant shall fail to do so forthwith the Landlord at its option may terminate this Lease by giving the Tenant notice in writing of its intention to do so, and thereupon rent and any other payments for which the Tenant is liable under this Lease shall be apportioned and paid in full to the date of such termination of the Lease, and the Tenant shall immediately deliver up possession of the Demised Premises to the Landlord.

9. **HOLD HARMLESS**

- 9.1 (a) The Tenant shall hold the Landlord harmless from any and all third party claims, demands or actions for which the Tenant is legally responsible, including, without limitation, those arising out of negligence or wilful acts by the Tenant or the Tenant's employees or agents.
- (b) This hold harmless provision shall survive this Lease.

10. **LIMITATION OF LANDLORD'S LIABILITY**

10.1 The Tenant shall not be entitled to damages, costs, losses or disbursements from the Landlord, regardless of the cause or reason therefor, on account of:

- (a) partial or total failure of, damage caused by, lessening of supply of, or stoppage of heat, electric light, power, water, plumbing, sewerage, or any other service;
- (b) any damage or annoyance occasioned by water, snow or ice being upon or coming through the roof, skylight, trapdoors, windows or otherwise, or by any defect or break in any pipes, tanks, fixtures or otherwise, whereby steam, water, snow, smoke or gas leaks, issues or flows into the Demised Premises;
- (c) any damage or annoyance occasioned by the condition or arrangements of any electric or other wiring;
- (d) any damage or annoyance arising from any acts, omissions, or negligence of owners or occupants of adjacent or contiguous property; or
- (e) the making of alterations, repairs, improvements or structural changes to any of the Buildings or service therein or thereon or contiguous thereto, provided the same shall be made with reasonable expedition.

11. **TENANT'S INSURANCE**

11.1 During the Term, the Tenant shall be responsible for insuring all its owned property on the Demised Premises, including all of its improvements, furniture and fixtures in amounts adequate to cover the repair or replacement of such property.

11.2 The Tenant shall, at its own expense and without limiting its liabilities herein, insure its operations under a contract of General Liability Insurance, in accordance with the Alberta Insurance Act, in an amount not less than \$2,000,000.00 inclusive per occurrence, insuring against bodily injury, personal injury and property damage including loss of use thereof. Such insurance shall extend to include All Risks Tenants' Legal Liability coverage in an amount adequate to cover the Tenant's legal liability for the Demised Premises.

11.3 Certificates evidencing such insurance in a form acceptable to the Landlord will be made available on request of the Landlord.

11.4 All required insurance shall be endorsed to provide the Landlord with 30 days advance notice of cancellation or material change.

11.5 The Tenant hereby waives any right of recourse it may have or obtain against the Landlord, its employees or agents with regard to loss or damage to the Tenant's property located within the Buildings and the Demised Premises, and shall make its insurer aware of this waiver.

12. **EMPLOYEES INCLUDED**

12.1 Every right, exemption from liability, defence and immunity of whatsoever nature applicable to the Landlord or to which the Landlord is entitled under this Lease shall also be available and shall extend to protect each employee and agent of the Landlord acting in the course of or in connection with his or her employment. For the purposes of this Section, the Landlord is or shall be deemed to be acting as agent or trustee on behalf of and for the benefit of each person who is or who becomes an employee or agent of the Landlord from time to time.

13. **REFUSE**

13.1 The Tenant will not allow refuse, garbage or other loose or objectionable matter to accumulate in or about the Demised Premises or upon the Land, and will at all times keep and at the termination of the Term yield up the Demised Premises in a clean condition.

14. **REPAIRS AND MAINTENANCE**

- 14.1 (a) (i) In this Section, "Structural Elements" means the Buildings' foundation, floors, columns, exterior walls, roof, roofing, chimneys and vents, exterior cladding, exterior windows and doors and flashings.
- (ii) The Landlord shall at all times keep the Structural Elements of the Buildings in good order and condition and shall make all needed repairs and replacements thereto as required from time to time during the Term.

- (b) Subject to Section 14.1(a), the Tenant shall, in accordance with all applicable codes, throughout the Term keep the Buildings including the mechanical, electrical and other utility systems servicing the Buildings and any appurtenances thereto and any and all improvements nor or hereafter executed or installed in or about the Demised Premises, in good order and condition and shall make all needed repairs and replacements thereto as required from time to time during the Term. For clarity, but without limiting the generality of the foregoing, the Tenant is responsible for the items listed in Schedule "A" attached hereto, as each is applicable, for the Demised Premises.
- (c) The Tenant shall make all needed repairs and replacements thereto required due to the negligence of the Tenant, its employees, agents or invitees, and any loss or damage to the Tenant's improvements for which the Tenant is required to insure under this Lease.

14.2 The Tenant shall maintain the surfaces of any sidewalks, driveways, and parking areas located on the Land, including the refurbishment or replacement of the surfaces when required in order to retain the same in at least the condition existing at the Commencement Date.

14.3 The Tenant will permit the Landlord, its employees and agents to enter the Demised Premises at all reasonable times for the purpose of viewing the condition thereof, and will facilitate such entry in accordance with the Residential Tenancies Act. If repair or maintenance is required and is the responsibility of the Tenant, the Tenant shall, within 10 days of receipt of written notice given by or on behalf of the Landlord, commence and proceed diligently with the completion of the repair or maintenance referred to in the notice. If the Tenant has not complied with the notice within 10 days

from the date of receipt thereof, the Landlord and its agents, as agent of the Tenant, may serve notice of entry to the occupants of the Demised Premises in accordance with the Residential Tenancies Act and enter the Demised Premises and execute such repair or maintenance and the Landlord shall be entitled to recover the cost from the Tenant as rent.

14.4 The Landlord may issue demerit points to the Tenant under the Maintenance Contract in the event of any default or series of defaults by the Tenant under the provisions of this Section 14 that the Landlord, in its sole discretion, considers material.

15. **LIENS, CAVEATS AND ENCUMBRANCES**

15.1 During the Term, the Tenant shall not suffer or permit any builders' liens or other liens for work, labour, services or material relating to work contracted for by or performed to the benefit of the Tenant, any party claiming under the Tenant, or any agent, servant or employee of the Tenant to remain filed against the Land. The Tenant shall, to the satisfaction of the Landlord, indemnify and hold the Landlord harmless against the cost of removing any such liens and against all liability for any damages, interest, penalties and expenses (including reasonable legal costs) resulting from or incurred in connection with such liens that are not forthwith removed by the Tenant.

15.2 (a) Except as provided in Section 15.2(b), the Tenant shall not register or cause to be registered, nor permit anyone claiming through or under it to register or cause to be registered, any caveat or encumbrance against the Landlord's title to the Land without the Landlord's prior written consent.

(b) The Tenant may register, or permit to be registered, a caveat in respect of this Lease for the whole or any part of the Demised Premises, but shall not otherwise register or permit to be registered this Lease.

16. **NOTICE OF DEFECT, DAMAGE, FAILURE, ACCIDENT OR INJURY**

16.1 The Tenant shall give to the Landlord prompt notice of any accident to or defect in or failure of the water or gas pipes, electric lights or otherwise and any defect in or failure of the heating apparatus which is known to the Tenant. In addition, the Tenant shall immediately advise the Landlord of any accident to or any damage to the Buildings which is known to the Tenant.

16.2 The Tenant shall immediately advise the Landlord of any injury or accident which may result in injury occurring on, in or about the Demised Premises.

17. **REGULATIONS AND LAWS**

17.1 The Tenant, its agents and employees shall observe any reasonable rules and regulations that the Landlord may make from time to time for the safety, care, cleanliness, preservation and good order of the Demised Premises, and the comfort and convenience of the occupants of the Buildings.

17.2 (a) The Tenant will observe and comply with all requirements in law with respect to its use and occupancy of the Demised Premises and its obligations under this Lease.

(b) Without limiting the generality of the foregoing, the space leased under this Lease may be subject to the provisions of the Protection From Second-Hand Smoke in Public Buildings Act, R.S.A. 2000, c. P-30.

18. **SIGNS**

18.1 The Tenant will not inscribe, paint or affix any sign, advertisement or notice on any part of the outside or inside of the Buildings except of such colour, size and style and in such place or places as shall be consented to by the Landlord, such consent not to be unreasonably withheld.

18.2 The Tenant shall be responsible for all costs associated with its signs, including signs for parking stalls (if applicable).

19. **QUIET ENJOYMENT**

19.1 The Landlord has good right and full power to lease the Demised Premises and to grant the rights and privileges in the manner aforesaid, and, if and so long as the Tenant keeps and performs each and every covenant, agreement, term, provision and condition herein contained on the part and on behalf of the Tenant to be kept and performed, the Tenant shall quietly enjoy the Demised Premises without hindrance or interruption by the Landlord or any other person claiming by, through or under the Landlord, subject to the covenants, agreements, terms, provisions and conditions of this Lease.

20. **ELECTRICITY**

20.1 The Landlord will procure electric current from the corporation or authority supplying the same in the area in which the Buildings are located and ensure that the said current is available at the Demised Premises as a source of supply for the Tenant, providing the Landlord shall not be liable for failure to supply such current for any cause not occasioned by the negligence of the Landlord.

21. **REMOVAL OF TENANT'S EQUIPMENT AND FIXTURES**

21.1 The Tenant reserves all its right, title and interest in and to its facilities and equipment and upon termination of this Lease or any renewal thereof, as the case may be, the Tenant may, if all rent and monies have been paid, remove from the Demised Premises such facilities and equipment so installed by the Tenant, all of which are hereby deemed and agreed to be personal property. Any removal shall be completed prior to the termination of this Lease and the Tenant shall make good all damage caused by such removal.

22. **DESTRUCTION OR DAMAGE**

22.1 If during the Term:

- (a) All or any number of the Buildings are totally destroyed by fire, or other cause; or
- (b) All or any number of the Buildings are damaged so as to render them unusable or partly unusable for the Tenant's permitted uses, but not to the extent that the affected Building or Buildings are totally destroyed as that expression is defined in this Section:

the Landlord may, by giving written notice thereof to the Tenant within 1 month after the date of destruction or damage, either terminate this Lease in whole, or terminate only that portion of this Lease which applies to that Building or Buildings affected by such destruction or damage. In the latter event, the total rent payable to the Landlord by the Tenant under this Lease shall be adjusted in accordance with the rate set forth in Subsection 1.3 of this Lease.

22.2 In this Section "totally destroyed" means destruction or damage to the extent that, in the Landlord's opinion, the affected Building or Buildings cannot be made ready for the Tenant's reoccupancy within 6 months of the event.

22.3 Notwithstanding the foregoing, the Tenant shall in no way be released from its liability for damage to any of the Buildings where such damage is caused by the negligence of the Tenant, its employees or agents.

23. **REMODELLING**

23.1 The Tenant shall not carry out any alterations to the Demised Premises without the prior written approval of the Landlord, which approval shall not be unreasonably withheld. However, the Landlord may unreasonably withhold consent in cases where the structure of the Buildings or the Buildings' mechanical and electrical systems are affected. All alterations, additions or improvements made by the Tenant, excepting moveable furniture and other tenants' fixtures, shall be and remain the property of the Landlord on the expiration of the Term.

24. **FORCE MAJEURE**

24.1 If the Landlord is prevented, delayed or restricted in the performance of any of its obligations under this Lease due to any event or circumstance beyond its control, the time for performance of that obligation shall be extended for the period of time and to the extent that the event or circumstance operates to delay, prevent or restrict such performance.

25. **TERMINATION FOR DEFAULT**

25.1 The Tenant shall be deemed to have committed an act of default hereunder if:

- (a) any of the Tenant's goods and chattels located in the Demised Premises liable to distress are seized or taken in execution or attachment by any creditor of the Tenant;
- (b) the Tenant makes an assignment for the benefit of its creditors, or becomes bankrupt or insolvent or takes the benefit of any enactment for bankrupt or insolvent debtors, or becomes involved in voluntary or involuntary winding-up proceedings, or if a receiver shall be appointed for the business, property, affairs or revenues of the Tenant;
- (c) the Tenant fails to perform any obligation or comply with any provision of this Lease and persists in such failure 3 days after receiving written notice from the Landlord to rectify such failure. If such failure would reasonably require more than 3 days to rectify, the Tenant shall be deemed to have committed an act of default hereunder unless the Tenant commences rectification within the 3 day period and thereafter promptly, effectively and continuously proceeds with such rectification;
- (d) part or all of the rent or other amounts hereby reserved to be paid by the Tenant are not so paid, and such default continues for 5 days after the due date thereof; or
- (e) the Tenant abandons or purports to surrender the Demised Premises or repudiates this Lease or makes a bulk sale of its goods.

25.2 Upon the Tenant committing an act of default, the Landlord may terminate this Lease upon giving the Tenant written notice of termination, whereupon the Landlord shall be entitled to enter upon and retake the Demised Premises.

26. **ARBITRATION**

26.1 In the event of a dispute arising between the Landlord and the Tenant regarding the interpretation, application, operation or any alleged violation of this Agreement, such dispute shall be determined by arbitration in accordance with this Section.

26.2 The party alleging a dispute shall notify the other party in writing of the details of the nature and extent of the dispute.

26.3 Within 7 days from receipt of notice, the opposite party shall in writing notify the party preparing the initial notice of any matter referred to in the initial notice for which it accepts responsibility and proposes to take remedial action.

26.4 The terms of reference for arbitration shall be those areas of dispute referred to in the initial notice with respect to which the opposite party has not admitted responsibility or proposed to take remedial action to the satisfaction of the first party.

26.5 Each party shall, within 7 days of the establishment of the terms of reference, appoint an arbitrator and the two arbitrators shall within 7 days of their appointment appoint a third member of the arbitration committee who will act as chairperson. However, if the two arbitrators fail to appoint a chairperson, then both parties or either of them may apply to a Justice of the Court of Queen's Bench of Alberta to have the chairperson appointed.

26.6 If either party fails to appoint an arbitrator within the 7 day period, the arbitrator appointed by the one party shall be deemed to be the arbitration committee and a decision of such arbitrator shall be binding upon the parties.

26.7 Within 30 days of the establishment of the arbitration committee, or such further period as may be agreed upon by the parties, the arbitration committee shall resolve the matters in dispute referred to in the terms of reference.

26.8 The decision of the majority of the arbitration committee shall be the decision of the committee.

26.9 The decision of the arbitration committee shall be binding upon the parties.

26.10 The cost of the arbitration committee shall be borne equally by the parties.

27. **CARETAKING**

27.1 The Tenant shall provide caretaking services in the Demised Premises during the Term to maintain a reasonable standard of cleanliness.

27.2 The Tenant shall provide sufficient numbers of secure bear-proof waste containers throughout the Demised Premises for the storage of debris and waste generated by the occupants of the Demised Premises, and the Tenant shall remove such debris and waste from the Demised Premises to an approved sanitary land fill site as often as necessary in order to maintain the Demised Premises and adjacent areas in a clean condition.

27.3 The Tenant will keep in a clean condition any sidewalks, driveways, and parking areas located upon the Land, and will maintain the same free of the accumulation of debris, dust, ice and snow.

27.4 The Tenant will maintain the landscaping and other exterior improvements on the Land for the Demised Premises in good order and repair.

27.5 The Tenant shall not bring onto the Land any substances or materials which could create environmental contamination, noxious, corrosive, or toxic conditions potentially harmful to persons or property.

28. **OVERHOLDING**

28.1 Should the Tenant remain in possession of the Demised Premises after the termination of the Term without written agreement, a tenancy from year to year shall not be created by implication of the law and the Tenant shall be deemed to be a monthly tenant only at a monthly rental to be established by the Landlord and otherwise in accordance with the terms of this Lease.

29. **PRORATING OF PAYMENTS BY TENANT AND LANDLORD**

29.1 Where an amount is payable by the Tenant or by the Landlord in respect of a period of time where only part of the period of time falls within the Term of the Lease, the amount will be prorated.

30. **ADDRESSES FOR NOTICES**

30.1 Whenever in this Lease it shall be required or permitted that notice or demand be given or served by either party to this Lease to or on the other party, such notice or demand shall be in writing and may be given personally or by prepaid registered letter addressed to the other party for which intended at the address hereunder or to such other address as may be substituted therefor from time to time by proper notice and, if mailed, shall be deemed to be given 48 hours after it is mailed as hereinbefore specified:

TO THE LANDLORD AT:

DIRECTOR, LEASING

ALBERTA INFRASTRUCTURE AND TRANSPORTATION

3RD FLOOR, 6950 - 113 STREET

EDMONTON, ALBERTA

T6H 5V7

TO THE TENANT AT:

31. **NON-WAIVER**

31.1 The waiver by the Landlord or the Tenant of the strict performance of any condition, covenant or agreement herein contained shall not constitute a waiver of or abrogate such or any other condition, covenant or agreement nor shall it be deemed a waiver of any subsequent breach of the same or of any other condition, covenant or agreement.

32. **CONDITIONS, SUBSEQUENT OR PRECEDENT**

32.1 There are no conditions, either subsequent or precedent, except as set forth in this Lease. This Lease constitutes the entire agreement between the parties and no representations, warranties or promises have been made by the Landlord to the Tenant save those as contained herein.

33. **TIME OF ESSENCE**

33.1 Time is of the essence in this Lease.

34. **INTERPRETATION**

34.1 The headings used throughout this Lease are inserted for reference purposes only and are not considered or taken into account in construing the terms and provisions of any section nor to be deemed in any way to qualify, modify, or explain the effects of any such provisions or terms.

34.2 The words "herein", "hereof", "hereby", "hereunder" and words of similar import refer to this Lease as a whole and not to any section hereof.

34.3 A reference to any federal or provincial law or regulation, or to any municipal by-law shall be deemed to be a reference to the law, regulation or by-law as may be amended, revised, repealed and replaced, or substituted, from time to time.

35. **RECITALS**

35.1 The recitals at the beginning of this Lease are true, and the recitals and the Schedule attached are hereby incorporated into and form an integral part of this Lease.

36. **PARTIAL INVALIDITY**

36.1 Should any provision or provisions of this Lease be illegal or not enforceable, it or they shall be considered separate and severable from the Lease and its remaining provisions shall remain in force and be binding upon the parties as though the said provision or provisions had never been included.

37. **SUCCESSORS OR ASSIGNS**

37.1 This Lease shall enure to the benefit of and be binding upon the Landlord and the Landlord's successors and assigns and upon the Tenant and the Tenant's successors.

37.2 The Tenant does hereby accept this Lease of the Demised Premises as above set forth.

The parties have duly executed this Lease as of the day and year first above written.

LANDLORD:

Signed by the Minister of
Infrastructure and Transportation
of the Province of Alberta, or his
duly authorized representative,
and sealed with his Seal of Office.

DIRECTOR, LEASING
DEPARTMENT OF INFRASTRUCTURE
AND TRANSPORTATION

TENANT:

PER (Seal)

PER

TENANT RESPONSIBILITIES

The Tenant is responsible for the following:

1. Washing windows;
2. Washing ceilings and walls, as necessary;
3. Removing garbage from the Demised Premises;
4. Conducting preventive maintenance and repair of the heating units, propane gas tanks, plumbing and electrical systems;
5. Replacing light bulbs, tubes and ballasts, as needed;
6. Repairing and maintaining light standards (including bulb replacement);
7. Maintaining and securing site fencing;
8. Performing horticultural services (including weed control) to all the Land and any grounds and areas immediately outside the perimeter of the Land for which maintenance is required by the authority having jurisdiction;
9. Controlling pests;
10. Repairing and maintaining sewage disposal systems, including the pumping out and cleaning of the septic tank and related equipment, as needed;
11. Servicing domestic water systems, including repairing and maintaining pumps, cisterns, pressure systems and conditioning systems, if applicable;
12. Disposing of used oil by approved means;
13. Maintaining gravelled and paved areas on the Land;
14. Repairing or replacing door locks; repairing and replacing weatherstripping on exterior entrance doors. Providing for keys to be cut, or re-keying to be completed, as required;
15. Replacing caulking, weather seals and broken glass on exterior windows;
16. Repainting all interior painted surfaces, as reasonably required;
17. Repairing, maintaining and replacing floor coverings, as reasonably required; and
18. Repairing and maintaining all steps, decks, and stairs, as required.

INDEX

LEASE AGREEMENT
(RENTS RECEIVABLE)

SECTION

1.	DEMISED PREMISES, TERM AND RENT.....	Page 2
2.	CONDITION OF DEMISED PREMISES	Page 3
3.	NET LEASE.....	Page 4
4.	OPERATING COSTS.....	Page 4
5.	TAXES.....	Page 4
6.	BUSINESS TAXES AND OTHER CHARGES.....	Page 5
7.	ASSIGNMENT OR SUBLETTING	Page 5
8.	NUISANCE.....	Page 6
9.	HOLD HARMLESS	Page 7
10.	LIMITATION OF LANDLORD'S LIABILITY	Page 7
11.	TENANT'S INSURANCE.....	Page 8
12.	EMPLOYEES INCLUDED.....	Page 9
13.	REFUSE.....	Page 9
14.	REPAIRS AND MAINTENANCE.....	Page 9
15.	LIENS, CAVEATS AND ENCUMBRANCES	Page 11
16.	NOTICE OF DEFECT, DAMAGE, FAILURE, ACCIDENT OR INJURY.....	Page 12
17.	REGULATIONS AND LAWS	Page 12
18.	SIGNS.....	Page 13
19.	QUIET ENJOYMENT.....	Page 13
20.	ELECTRICITY	Page 13
21.	REMOVAL OF TENANT'S EQUIPMENT AND FIXTURES	Page 14
22.	DESTRUCTION OR DAMAGE.....	Page 14
23.	REMODELLING	Page 15
24.	FORCE MAJEURE	Page 15
25.	TERMINATION FOR DEFAULT.....	Page 16
26.	ARBITRATION.....	Page 17
27.	CARETAKING	Page 18
28.	OVERHOLDING.....	Page 19
29.	PRORATING OF PAYMENTS BY TENANT AND LANDLORD.....	Page 19
30.	ADDRESSES FOR NOTICES	Page 20

- cont'd -

INDEX

LEASE AGREEMENT

SECTION

31.	NON-WAIVER	Page 21
32.	CONDITIONS, SUBSEQUENT OR PRECEDENT	Page 21
33.	TIME OF ESSENCE.....	Page 21
34.	INTERPRETATION.....	Page 21
35.	RECITALS	Page 22
36.	PARTIAL INVALIDITY	Page 22
37.	SUCCESSORS OR ASSIGNS	Page 22

SCHEDULE "A"TENANT'S RESPONSIBILITIES

LEASE AGREEMENT
(Rents Receivable)

Lease of residential units to:

"Peter Lougheed Provincial Park"
Kananaskis, Alberta

File: R4758____-2

OUR FILE: CMAs 27, 28 & 30

April 20, 2005

Prospective Contractors:

RE: Request for Proposal – Addendum 1
Highway Maintenance Work – Southern Region

Attached is addendum 1 to the Request for Proposals for Highway Maintenance Work in the Southern Region (CMAs 27, 28 & 30).

This addendum includes revisions to sections of the RFP which are common to all three CMAs, and CMA specific revisions. The addendum document is organized by common and CMA specific revisions.

Please make the necessary revisions to the proposal documents as shown on the attached addendum 1. Prospective respondents must acknowledge receipt of this addendum on the "Receipt of Addendum" form provided, and include the form in Envelope 1 of the proposal submission.

Also, attached is a list of relevant questions asked by prospective respondents during the RFP period to date, and the answers the department has provided.

If you have any questions on addendum 1 then please call me at (780) 415-1071.

Sincerely,



Donald Durand
Operations Technologist

cc: Moh Lali, Director, Highway Operations, Technical Standards Branch
Darrell Camplin, Regional Director, Southern Region
Bruce Atwell, Operations Manager, Calgary
Jim Harvey, Director, Tender Administration, Program Management Branch

attachment:

ADDENDUM 1

REQUEST FOR PROPOSALS HIGHWAY MAINTENANCE WORK IN THE SOUTHERN REGION (CMAs 27, 28 & 30)

The above noted Request for Proposal is revised in accordance with the following:

REVISIONS COMMON TO ALL THREE CMAS

1 REVISIONS TO SECTION "E", SPECIAL PROVISIONS

1.1 **Special Provision "G", PROVISION OF MATERIALS, is revised in accordance with the following:**

1.1.1 The following sentence is inserted after the first sentence of the first paragraph:

When required, the Contractor shall use these materials for their intended purpose but must replenish the inventory within two weeks thereafter.

1.2 **Special Provision "H", HIGHWAY MAINTENANCE WORK, is revised in accordance with the following:**

1.2.1 In the Section titled "REFUSE PICKUP", the following paragraph is inserted before the last paragraph:

The Contractor shall complete a thorough clean up of all highway right-of-ways a minimum of twice a year as requested by the Engineer. A thorough clean up means walking the highway right-of-way and picking up any items of litter or refuse.

1.3 **The Special Provision titled "ENVIRONMENTAL MANAGEMENT OF MAINTENANCE FACILITIES", (SP "NN" in CMAs 27 & 30, and SP "OO" in CMA 28) is revised in accordance with the following:**

1.3.1 Following is an updated list of maintenance facilities previously owned by the Government of Alberta (GOA) for all three CMAs. The Prospective Contractors are advised that the Scott Lake facility has been upgraded from a "Priority Two" to a "Priority One" site.

This updated list is inserted after the second paragraph of the subsection titled **"Maintenance Facilities Previously Owned by the Government of Alberta and New Sites Proposed by the Contractor"**.

Site Previously Owned by GOA	Priority	CMA
Black Diamond	2	27
High River	1	27
Willow Creek (Chain Lakes)	1	27
Canmore	1	28

Site Previously Owned by GOA	Priority	CMA
Cochrane	2	28
Kananaskis (Owned by GOA)	1	28
Scott Lake	1	28
Chestermere	1	30
Gleichen	2	30

2 REVISIONS TO SECTION "G", SPECIFICATION AMENDMENTS

2.1 The following Specification Amendment has been added:

E. AMENDMENTS TO SPECIFICATION 54.13, MAINTENANCE OF HIGHWAY SIGNS

- I. The last sentence of Subsection 54.13.6.1.1, Wooden Supports - Supply and Install, is replaced with the following:

Payment will be full compensation for removing and disposing of the existing posts, supplying and installing the new posts, and all labour, materials, equipment, tools and incidentals necessary to complete the Work.

- II. The following paragraph is added to Subsection 54.13.6.1.3, Wooden Supports - Remove and Dispose:

The payment for "Wooden Supports- Remove and Dispose" will only be applicable when the post is not replaced.

- III. The last paragraph of Subsection 54.13.6.3.3, Remove Signs, is replaced with the following:

The payment for "Remove Sign" will only be applicable when the sign is not replaced, or is scheduled for replacement at a later date, and when the post(s) is not removed.

REVISIONS SPECIFIC TO CMA 27

3 REVISIONS TO SECTION "E", SPECIAL PROVISIONS

3.1 **Special Provision "K", SNOW REMOVAL AND ICE CONTROL, is revised in accordance with the following:**

3.1.1 In the first bullet under the Section titled "Snowplow Truck Fleet And Equipment Requirements", the minimum number of snowplow trucks specified is increased from "18" to "**19**" trucks.

3.1.2 In the Section titled "Number Of Snowplow Trucks", the base number of snowplow trucks specified is increased from "20" to "**21**" trucks, and the minimum number of snowplow trucks specified is increased from "18" to "**19**" trucks .

3.2 **Special Provision "X", SNOWPLOW TRUCK ALLOCATION REQUIREMENTS, is revised in accordance with the following:**

3.2.1 The "Number of Trucks" headings of the last 3 columns in the first table are all increased by 1 as follows: from "20 (base)" to "**21 (Base)**"; from "19" to "**20**"; and from "18 (Min #)" to "**19 (Min #)**".

REVISIONS SPECIFIC TO CMA 28

4 REVISIONS TO SECTION "E", SPECIAL PROVISIONS

4.1 **Special Provision "PP", USE OF MAINTENANCE FACILITIES OWNED BY THE GOVERNMENT OF ALBERTA, is revised in accordance with the following:**

4.1.1 The table following the first paragraph is replaced with the following:

<i>Location</i>	<i>Facility</i>	<i>Annual Taxes</i>	<i>Annual Lease</i>
<i>Kananaskis</i>	<i>Maintenance Yard</i>	<i>\$8,805.00</i>	<i>\$105,420.00</i>
	<i>Residential Houses (5 in total)</i>	<i>\$1,800.00 (total for all 5 houses)</i>	<i>\$37,200.00 (total for all 5 houses)</i>

4.1.2 The first bullet following the table is replaced with the following:

- *The lease format will be in strict accordance with the Department's standard lease agreements for highway maintenance yards and residential facilities.*

5 REVISIONS TO SECTION "N", STANDARD LEASE AGREEMENT

5.1 **The 5 houses being made available for lease in the Kananaskis area will be subject to the Department's standard lease agreement for residential facilities.**

Prospective Contractors may obtain a copy of the residential lease agreement by contacting Donald Durand at (780) 415-1071, Email: don.durand@gov.ab.ca.

REVISIONS SPECIFIC TO CMA 30

6 REVISIONS TO SECTION "E", SPECIAL PROVISIONS

6.1 **Special Provision "Q", WINTER SANDING MATERIALS, is revised in accordance with the following:**

6.1.1 The following paragraph is added to the end of the special provision:

The Contractor is advised that there is approximately 45,000 tonnes of reject fines stockpiled at the department owned Towers Pit that - with some processing (screening, blending, etc.) - could be made suitable for sanding material in CMA 30, as specified above. This stockpile of reject fines will not be used prior to the 2006/07 winter season.

End of Addendum 1.

RECEIPT OF ADDENDUM 1

In accordance with Section 1.8, Addenda, of the Instructions to Prospective Contractors, all addenda received by the Prospective Contractors must be acknowledged.

The undersigned as an authorized representative of the Contractor, by signature acknowledges receipt of Addendum 1 on the date indicated.

Please complete this form and enclose in Envelope 1 of your submission.

ISSUED	RECEIVED	CONTRACTOR'S SIGNATURE
April 20, 2005		

A separate form will be issued with each addendum.

Questions and Answers

Provided with Addendum 1 for Information Only

Q. - Re: Historical Quantities – There is a dollar value at the bottom of each CMA spreadsheet. Is this supposed to represent the total YTD spending of all bid items including fixed costs?

A. - Yes.

Q. - CMA 27, Graders – There are now four graders listed for the requirements versus the previous three, with an additional one in the Black Diamond area. The total annual hours are only 1500 between winter and summer. Is the intent of this machine only for winter or are there more gravel roads being added to the Black Diamond area?

A. - The motor grader requirements in section “O” of the Special provisions are for winter operations only.

Q. - All CMA’s SP’s – Why is it a requirement for all graders to be equipped with front mount dozer blades?

A. - This isn't a requirement for all CMAs, only CMA 27 specifies front mounted plows on graders (3 of the four graders to have front mounted plows). The front mount blades are required of heavy snow fall events when heavy drifting occurs.

Q. - All CMA’s SP’s, Highway Inspections – As there has been a change in inspection frequencies on some roads, is it the intent of the department to triple the number of inspections on high volume roads?

A. - On Highways 2, 2A and 8 continuous patrolling is required during inclement weather. All inspections are specified in the Special Provisions.

Q. - All CMA’s SP’s, Highway Maintenance Work, Sign Maintenance – With the Department, and the Contractor now assuming the maintenance of buried utility signs, does the maintenance include replacement when the signs are removed, and what liability is being assumed if an incident occurs with a mismarked utility in the ROW?

A. - Private utility signs located on the edge of the highway right-of-way are not to be maintained by the contractor. Private utility signs located on the side slope, if any exist, are to be washed and straighten as required. If they fall down the contractor is to inform the department and remove the sign if directed by the department. The contractor is not to replace the sign. This is the responsibility of the private utility owner.

Q. - CMA 30 – Footprint Details; The two-lane equivalent kilometers are listed as 734 km in both the snowplow and salt footprint details, but up to this point, the number has been 696 km. Has there been a road added?

A. - No additional road has been added. The department re-measured the two-lane equivalent kilometers and took into account acceleration lanes, deceleration lanes, cross-overs and passing lanes.

Q. - CMA 30 – Page 7, Provision of Materials; until this point, CMA 30 has not used proprietary pothole patching material, but there is now a requirement to stockpile up to 1 tonne per shop, which is a considerable amount. Is this a shift from using cold mix in CMA 30?

A. - Yes.

Q. - CMA 27 – Page 19, Snow Removal and Ice Control, Hot Spots; Is Hwy 8 not considered a Hot Spot?

A. - Highway 8 is not a hot spot.

Q. - All CMA's SP's – Annual Highway Cleanup; Reference to the Supply of "Truck" – Is this "Truck" to be a pickup, or a larger unit with a haul capacity of 7 yd³ plus?

A. - The SP states that payment for "Supply of Trucks" is for pickup trucks, and that any larger equipment required to dispose of the garbage bags will be paid for as extra work.

Q. - All CMA's SP's – Emergency Sign Package; Are trailers no longer required for transporting e-packages?

A. - Trailers were never a requirement for emergency sign packages. The Specifications Review Committee did consider this as a spec change for Edition 4 of the Standard Specifications for Highway Maintenance manual, but eventually decided not to adopt it. Instead, the spec was revised to specifically state that covered storage was required, and that emergency sign packages would not be used for any other purpose than emergencies, unless approved by the engineer.

Q. - CMA 28 – Page 46, Use of Maintenance Facilities Owned by the Alberta Government; if this shop is made available, then it is critical that the five existing houses also be available in order to keep staff within a reasonable travel distance. Are the houses available?

A. - The houses will be available for lease.

Q. - How many houses are available for lease at the Kananaskis location?

A. - There are 5 house available for lease.

Q. - What is the cost of leasing the housing in Kananaskis?

A. - Please contact Don Gerlinsky at 403-297-6215 for information regarding the housing in Kananaskis.

Q. - Local Features, CMA 30, Ferry Operations, 2nd paragraph – The loader required at the ferry and any equipment that physically works into the river has had environmentally friendly fluids in their hydraulics. However, the dozers and winch trucks that launch or dock the ferry have not. The department needs to be aware of this, as the costs for this will be substantial for short periods of work, as you may be aware from past experiences. But costs aside, the planning for docking and launching the ferry will need to be more precise, as the time to replace fluids is at least one full day on each side of the actual work and it is yet to be determined if winch truck companies will be prepared to accommodate this. We recommend that as per permits from Alberta Environment, a distance from foreshore be established where heavy equipment can safely work without having to change fluids. A note is that the ferry itself does not have environmentally friendly fluids.

A. - The CMA 30 special provision section UU, for the Crowfoot Ferry, requires that any equipment operating in the river needs to use 'environmentally friendly' hydraulic fluid. It is always the contractor's responsibility to follow environmental legislation. Provided the dozers and winch trucks don't enter the water they shouldn't require environmentally friendly fluids in their hydraulics.

Q. - Does the current contractor or Alberta Infrastructure own the Coverall Sand/Salt Shed at the Kananaskis location?

A. - The Province does not own the Coverall Sand/Salt Shed at the Kananaskis site.

Q. - Does the current contractor or Alberta Infrastructure own the Coverall Sand/Salt Shed at the Elbow Falls location?

A. - The Province does not own the Coverall Sand/Salt Shed at the Elbow Falls Site.

Q. - Since the Elbow Falls location is not available for lease, and the local municipal regulations make it impossible to construct a new highway maintenance facility (and associated sand/salt storage structures) within close proximity to the current location, why would the department use Elbow Falls as a base case in the WSD spreadsheets?

A. - We use existing sites in the spreadsheets as we cannot speculate where prospective maintenance contractors will locate their storage sites. Prospective contractors must do their own calculations for proposed storage sites.

Q. - Could the department please provide the necessary information (Bridge File or otherwise) on the location of the IN 115, IN 114, and IN 123 Grade Separations identified in CMA 28's scope of work table for gravel roads?

A. - IN 123: BF# 76182 - Ridge Road 1.5 km west of Jumping pound Overpass
IN 114: BF# 74597 - Hermitage Road 3 km west of Ridge Road
IN 115: BF# 74598 - Sibbald Road 3 km west of Hermitage Road

Each of the bridge files are box culverts along Hwy. #1, and the Contractor will look after the ramps and short sections of Road which are gravel.

OUR FILE: CMAs 27, 28 & 30

April 29, 2005

Prospective Contractors:

RE: Request for Proposal – Addendum 2
Highway Maintenance Work – Southern Region

Attached is addendum 2 to the Request for Proposals for Highway Maintenance Work in the Southern Region (CMAs 27, 28 & 30).

There is only one revision in addendum 2, and it is common to all three CMAs. Please make the necessary revision to the proposal documents as shown on the attached addendum 2. Prospective respondents must acknowledge receipt of this addendum on the "Receipt of Addendum" form provided, and include the form in Envelope 1 of the proposal submission.

Also, attached is a list of relevant questions asked by prospective respondents since issuance of addendum 1, and the answers the department has provided.

If you have any questions on addendum 2 then please call me at (780) 415-1071.

Sincerely,



Donald Durand
Operations Technologist

cc: Moh Lali, Director, Highway Operations, Technical Standards Branch
Darrell Camplin, Regional Director, Southern Region
Bruce Atwell, Operations Manager, Calgary
Jim Harvey, Director, Tender Administration, Program Management Branch

attachment:

ADDENDUM 2

REQUEST FOR PROPOSALS HIGHWAY MAINTENANCE WORK IN THE SOUTHERN REGION (CMAs 27, 28 & 30)

The above noted Request for Proposal is revised in accordance with the following:

REVISIONS COMMON TO ALL THREE CMAS

1 REVISIONS TO SECTION "E", SPECIAL PROVISIONS

1.1 The Special Provision titled "BRUSH CUTTING", (SP "CC" in CMA 27, SP "DD" in CMA 28, and SP "BB" in CMA 30) is revised in accordance with the following:

1.1.1 The third sentence of the first paragraph is replaced with the following:

All resulting debris which is large enough to pose as a potential hazard (projectile) to the traveling public during mowing operations shall be removed and disposed of at an approved landfill site to the satisfaction of the Engineer.

End of Addendum 2.

RECEIPT OF ADDENDUM 2

In accordance with Section 1.8, Addenda, of the Instructions to Prospective Contractors, all addenda received by the Prospective Contractors must be acknowledged.

The undersigned as an authorized representative of the Contractor, by signature acknowledges receipt of Addendum 2 on the date indicated.

Please complete this form and enclose in Envelope 1 of your submission.

ISSUED	RECEIVED	CONTRACTOR'S SIGNATURE
April 29, 2005		

A separate form will be issued with each addendum.

Questions and Answers

Provided with Addendum 2 for Information Only

Q. - The SPs specify that the contractor must provide one single axle truck in the Kananaskis area, but the base case WSD uses all tandems (8.5m³ hoppers) for the Kananaskis shop?

A. - The single axle truck in the Kananaskis area is required to clear parking lots and other 'tight' areas where hopper capacity is not critical. The prospective Contractor's WSD spreadsheet for CMA 28 should show 8.5 m³ capacity for the single axle truck, the same way that it was done in the base case.

Q. - In the winter service delivery spreadsheets, do I need to enter a haul distance for the first assignment?

A. - Yes, a haul distance is needed for each assignment. The only time that it looks like a haul distance isn't entered is when the highway section being assigned on is adjacent to the stockpile site, when the haul distance is zero.

Q. - Does Transportation own all the equipment on the ferry? The life jackets , the dingy with outboard motor & the mobile home parked at the site?

A. - The department owns all the equipment on the ferry which includes the life jackets, dingy and outboard motor. The mobile home is also owned by the department. There is an old house on the site which is not owned by the department.

Q. - I am looking for a clarification of the intent of Special Provision for Brush Cutting.

-Is this work intended to be done with a Hydro Axe? If so, the removal and disposal of debris from the right of way becomes a very expensive item.

-Is this work intended to be done with 2 men with chainsaws and a 1 ton truck?

-Is this work intended to be done with chainsaws and chipper/shredders?

-Or is the work intended to be a combination of the above?

A. - Historically, brush cutting has usually been done with a rotary hydro axe on a track-hoe. Removal and disposal of debris is normally not required as it is environmentally acceptable to leave wood chips on the ground, however any debris which is large enough to pose as a potential hazard (projectile) to the traveling public during mowing operations shall be removed and disposed of. Currently the SP states that all debris shall be removed, but this will be revised in addendum 2 to state that only the larger debris shall be removed and disposed.

The Contractor may propose this or other means of brush cutting.
