

MEMO TO: City Council

FROM: John Marchione, Mayor

DATE: February 1, 2011

SUBJECT: **APPROVAL OF ENGINEERING SERVICES CONSULTANT AGREEMENT – PAVEMENT MANAGEMENT PROGRAM, 2011 PAVEMENT DISTRESS SURVEY, PROJECT NO. 101521**

I. RECOMMENDED ACTION:

Approve an engineering services consultant agreement with Measurement Research Corporation to provide pavement distress rating services for the Pavement Management Program, Project No. 101521, for an amount not to exceed \$50,000 and authorize the Mayor to sign the agreement.

II. DEPARTMENT CONTACT PERSONS:

Bill Campbell, Director of Public Works	425-556-2733
Ron Grant, Assistant Public Works Director/City Engineer	425-556-2742
Mel Peifer, Project Manager	425-556-2817

III. DESCRIPTION:

Background

Every two years the entirety of the City's street network is evaluated. Results from this evaluation include pavement distresses which are measured and input into the Pavement Management Program database. Pavement condition ratings are then calculated for each pavement segment. This data is used to monitor overall pavement condition, to select needed preservation projects, and to analyze future budget needs.

Scope

This agreement will provide the field survey, database input, and budget analysis for all of Redmond's 140 miles of streets.

Consultant Selection

Measurement Research Corporation developed the software the City uses and has done the City's ratings for over ten years. City staff has reviewed other rating consultants; however, they are not able to perform the data input or budget analysis using the City's software.

IV. IMPACT:

A. Service/Delivery:

The annual resurfacing of selected roadways is part of an ongoing program to preserve and maintain roadways.

B. Fiscal:

Estimated Project Costs:

Pavement Distress Ratings	\$35,484
Roadside Inventory Data Collection	2,055
Data Analysis and Report	9,500
Contingencies	<u>2,961</u>
Total	\$50,000

Proposed Funding:

Transportation CIP	\$50,000
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V. ALTERNATIVES:

City Council can choose to modify the scope of work; however this will delay the project.

VI. TIME CONSTRAINTS:

Approval of the agreement is essential in order to proceed with the data collection. This data will be used to determine the budget need for the next two years.

Begin Survey
Complete Project

April 2011
July 2011

VII. LIST OF ATTACHMENTS:

A. Proposed Consultant Agreement

/s/

William J. Campbell, Director of Public Works

01/20/2011

Date

Approved for Council Agenda /s/

John Marchione, Mayor

01/21/2011

Date

ATTACHMENT "A"

CONSULTANT AGREEMENT	
PROJECT TITLE 2011 Manual Pavement Distress Survey	WORK DESCRIPTION Perform pavement distress rating survey, update RPM software and database, & perform 10 year maintenance analysis.
PROJECT NO. 101521	
REDMOND BUSINESS LICENSE NO. RED00019760	CONSULTANT/ADDRESS/TELEPHONE Measurement Research Corporation 4126 4 th Street NW Gig Harbor, WA 98335 253-851-3200
FEDERAL I.D. NO. 91-1238874	
MAXIMUM AMOUNT PAYABLE \$50,000	COMPLETION DATE June 31, 2011

Index of Exhibits

Exhibit "A" – Scope of Work

Exhibit "B" – Payment (Negotiated Hourly Rate)

Exhibit "C" – Title VI Assurances

THIS AGREEMENT, made and entered into this _____ day of _____, 2011, between the City of Redmond, Washington, hereinafter called the "CITY", and the above organization hereinafter called the "CONSULTANT".

WITNESSETH THAT:

WHEREAS, the CITY desires to accomplish the above referenced project; and

WHEREAS, the CITY does not have sufficient staff to meet the required commitment and therefore deems it advisable and desirable to engage the assistance of a consultant to provide the necessary services for the PROJECT; and

WHEREAS, the CONSULTANT represents that he/she is in compliance with the Washington State Statutes relating to professional registration, if applicable, and has signified a willingness to furnish consulting services to the CITY.

NOW THEREFORE, in consideration of the terms, conditions, covenants and performance contained herein, or attached and incorporated and made a part hereof, the parties hereto agree as follows:

**I
GENERAL DESCRIPTION OF WORK**

The work under this AGREEMENT shall consist of the above described work and services as herein defined and necessary to accomplish the completed work for this PROJECT. The CONSULTANT shall furnish all services, labor and related equipment necessary to conduct and complete the work as designated elsewhere in this AGREEMENT.

**II
SCOPE OF WORK**

The Scope of Work and project level of effort for this project is detailed in Exhibit "A" attached hereto, and by this reference made a part of this AGREEMENT.

**III
GENERAL REQUIREMENTS**

All aspects of coordination of the work of this AGREEMENT, with outside agencies, groups or individuals shall receive advance approval by the CITY. Necessary contacts and meetings with agencies, groups or individuals shall be coordinated through the CITY. The CONSULTANT shall attend coordination, progress and presentation meetings with the CITY or such Federal, Community, State, City or County officials, groups or individuals as may be requested by the CITY. The CITY will provide the CONSULTANT sufficient notice prior to meetings requiring CONSULTANT participation.

The CONSULTANT shall prepare a monthly progress report, in a form approved by the CITY, that will outline in written and graphical form the various phases and the order of performance of the work in sufficient detail so that the progress of the work can easily be evaluated.

All reports, plans & specifications, and other data furnished to the CONSULTANT by the CITY shall be returned. All designs, drawings, specifications, documents, and other work products, including all electronic files, prepared by the CONSULTANT prior to completion or termination of this AGREEMENT are instruments of service for this PROJECT and are property of the CITY. Reuse by the CITY or by others acting through or on behalf of the CITY of any such instruments of service, not occurring as a part of this PROJECT, shall be without liability or legal exposure to the CONSULTANT.

**IV
TIME FOR BEGINNING AND COMPLETION**

The CONSULTANT shall not begin any work under the terms of this AGREEMENT until authorized in writing by the CITY. All work under this AGREEMENT shall be completed by the date shown in the AGREEMENT under completion date.

The established completion time shall not be extended because of any delays attributable to the CONSULTANT, but may be extended by the CITY, in the event of a delay attributable to the CITY, or because of unavoidable delays beyond the control of the CONSULTANT.

V PAYMENT PROVISIONS

The CONSULTANT shall be paid by the CITY for completed work and services rendered under this AGREEMENT as provided in Exhibit "B" attached hereto, and by this reference made part of this AGREEMENT. Such payment shall be full compensation for work performed or services rendered and for all labor, materials, supplies, equipment, and incidentals necessary to complete the work specified in Section II, "Scope of Work". The CONSULTANT shall conform with all applicable portions of 48 CFR 31.

VI SUBCONTRACTING

There will be no subcontracting under this AGREEMENT.

VII EMPLOYMENT

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warrant, the CITY shall have the right to annul this AGREEMENT without liability, or in its discretion, to deduct from the AGREEMENT price or consideration or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

Any and all employees of the CONSULTANT or other persons while engaged in the performance of any work or services required of the CONSULTANT under this AGREEMENT, shall be considered employees of the CONSULTANT only and not of the CITY, and any and all claims that may or might arise under any Workmen's Compensation Act on behalf of said employees or other persons while so engaged, and any and all claims made by a third party as a consequence of any act or omission on the part of the CONSULTANT's employees or other persons while so engaged on any of the work or services provided to be rendered herein, shall be the sole obligation and responsibility of the CONSULTANT.

The CONSULTANT shall not engage, on a full or part time basis, or other basis, during the period of the contract, any professional or technical personnel who are, or have been, at any time during the period of the contract, in the employ of the CITY, except regularly retired employees, without written consent of the public employer of such person.

VIII NONDISCRIMINATION

During the performance of this contract, the CONSULTANT, for itself, its assignees, and successors in interest agrees to comply with the following laws and regulations:

Title VI of the Civil Rights Act of 1964
(42 USC Chapter 21 Subchapter V Section 2000d through 2000d-4a)

Federal-aid Highway Act of 1973
(23 USC Chapter 3 Section 324)

Rehabilitation Act of 1973
(29 USC Chapter 16 Subchapter V Section 794)

Age Discrimination Act of 1975
(42 USC Chapter 76 Section 6101 et. seq.)

Civil Rights Restoration Act of 1987
(Public Law 100-259)

American with Disabilities Act of 1990
(42 USC Chapter 126 section 12101 et. seq.)

49 CFR Part 21

23 CFR Part 200

RCW 49.60.180

In relation to Title VI of the Civil Rights Act of 1964, the CONSULTANT is bound by the provisions of Exhibit "E" attached hereto and by this reference made a part of this AGREEMENT, and shall include the attached Exhibit "E" in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

IX TERMINATION OF AGREEMENT

The right is reserved by the CITY to terminate this AGREEMENT at any time upon ten (10) days written notice to the CONSULTANT.

In the event this AGREEMENT is terminated by the CITY other than for default on the part of the CONSULTANT, a final payment shall be made to the CONSULTANT for actual hours charged at the time of termination of the AGREEMENT plus any direct nonsalary costs incurred at the time of termination of the AGREEMENT.

No payment shall be made for any work completed after ten (10) days following receipt by the CONSULTANT of the Notice to Terminate. If the accumulated payment made to the CONSULTANT prior to Notice of Termination exceeds the total amount that would be due when computed as set forth

herein above, then no final payment shall be due and the CONSULTANT shall immediately reimburse the CITY for any excess paid.

If the services of the CONSULTANT are terminated by the CITY for default on the part of the CONSULTANT, the above formula for payment shall not apply. In such an event, the amount to be paid shall be determined by the CITY with consideration given to the actual costs incurred by the CONSULTANT in performing the work to the date of termination, the amount of work originally required which was satisfactorily completed to date of termination, whether that work is in a form or a type which is usable to the CITY at the time of termination; the cost to the CITY of employing another firm to complete the work required and the time which may be required to do so, and other factors which affect the value to the CITY of the work performed at the time of termination.

Under no circumstances shall payment made under this subsection exceed the amount which would have been made using the formula set forth above.

If it is determined for any reason that the CONSULTANT was not in default or that the CONSULTANT's failure to perform is without the CONSULTANT'S or it's employee's default or negligence, the termination shall be deemed to be a termination for the convenience of the CITY. In such an event, the CONSULTANT would be reimbursed for actual costs in accordance with the termination for other than default clauses listed previously.

In the event of the death of any member, partner or officer of the CONSULTANT or any of its supervisory personnel assigned to the project, or, dissolution of the partnership, termination of the corporation, or disaffiliation of the principally involved employee, the surviving members of the CONSULTANT hereby agree to complete the work under the terms of the AGREEMENT, if requested to do so by the CITY. The subsection shall not be a bar to renegotiation of the AGREEMENT between the surviving members of the CONSULTANT and the CITY, if the CITY so chooses.

In the event of the death of any of the parties listed in the previous paragraph, should the surviving members of the CONSULTANT, with the CITY's concurrence, desire to terminate this AGREEMENT, payment shall be made as set forth in the second paragraph of this section.

Payment for any part of the work by the CITY shall not constitute a waiver by the CITY of any remedies of any type it may have against the CONSULTANT for any breach of the AGREEMENT by the CONSULTANT, or for failure of the CONSULTANT to perform work required of it by the CITY. Forbearance of any rights under the AGREEMENT will not constitute waiver of entitlement to exercise those rights with respect to any future act or omission by the CONSULTANT.

X CHANGES OF WORK

The CONSULTANT shall make such changes and revisions in the complete work of this AGREEMENT as necessary to correct errors appearing therein when required to do so by the CITY, without additional compensation thereof. Should the CITY find it desirable for its own purposes to have previously satisfactorily completed work or parts thereof changed or revised, the CONSULTANT shall make such revisions as directed by the CITY. This work shall be considered as Extra Work and will be paid for as herein provided under Section XIV.

**XI
DISPUTES**

Any dispute concerning questions of fact in connection with the work not disposed of by AGREEMENT between the CONSULTANT and the CITY shall be referred for determination to the Director of Public Works or City Engineer, whose decision in the matter shall be final and binding on the parties of this AGREEMENT; provided however, that if an action is brought challenging the Director of Public Works or City Engineer's decision, that decision shall be subject to de novo judicial review.

**XII
VENUE, APPLICABLE LAW AND
PERSONAL JURISDICTION**

In the event that either party deems it necessary to institute legal action or proceedings to enforce any right or obligation under this AGREEMENT, the parties hereto agree that any such action shall be initiated in the Superior court of the State of Washington, situated in King County. The parties hereto agree that all questions shall be resolved by application of Washington law and that the parties to such action shall have the right of appeal from such decisions of the Superior court in accordance with the law of the State of Washington. The CONSULTANT hereby consents to the personal jurisdiction of the Superior Court of the State of Washington, situated in King County.

**XIII
LEGAL RELATIONS**

The CONSULTANT shall comply with all Federal, State, and local laws and ordinances applicable to the work to be done under this AGREEMENT. This AGREEMENT shall be interpreted and construed in accord with the laws of the State of Washington.

The CONSULTANT shall indemnify and hold the CITY and their officers and employees harmless from and shall process and defend at its own expense all claims, demands or suits at law or equity arising in whole or in part from the CONSULTANT's negligence or breach of any of its obligations under this AGREEMENT; provided that nothing herein shall require a CONSULTANT to indemnify the CITY against and hold harmless the CITY from claims, demands or suits based solely upon the conduct of the CITY, their agents, officers and employees and provided further that if the claims or suits are caused by or result from the concurrent negligence of (a) the CONSULTANT's agents or employees and (b) the CITY, their agents, officers and employees, this indemnity provision with respect to (1) claims or suits based upon such negligence, (2) the costs to the CITY of defending such claims and suits, etc. shall be valid and enforceable only to the extent of the CONSULTANT's negligence or the negligence of the CONSULTANT's agents or employees.

The CONSULTANT's relation to the CITY shall be at all times as an independent contractor.

The CONSULTANT shall comply with all applicable sections of the applicable Ethics laws, including RCW 42.23, which is the Code of Ethics for regulating contract interest by municipal officers. The CONSULTANT specifically assumes potential liability for actions brought by the CONSULTANT's own employees against the CITY and, solely for the purpose of this indemnification and defense, the CONSULTANT specifically waives any immunity under the state industrial insurance law, Title 51 RCW.

Unless otherwise specified in the AGREEMENT, the CITY shall be responsible for administration of construction contracts, if any, on the project. Subject to the processing of an acceptable, supplemental agreement, the CONSULTANT shall provide on-call assistance to the CITY during contract administration. By providing such assistance, the CONSULTANT shall assume no responsibility for: proper construction techniques, job site safety, or any construction contractor's failure to perform its work in accordance with the contract documents.

The CONSULTANT shall obtain and keep in force during the terms of the AGREEMENT, or as otherwise required, the following insurance with companies or through sources approved by the State Insurance Commissioner pursuant to Title 48 RCW.

Insurance Coverage

- A. Worker's compensation and employer's liability insurance as required by the State of Washington.
- B. Commercial general liability and property damage insurance in an amount not less than one million dollars (\$1,000,000) per occurrence/two million dollars (\$2,000,000) aggregate for bodily injury, including death and property damage.
- C. Professional liability insurance in the amount of \$1,000,000 or more against claims arising from the performance of professional services under this contract.
- D. Vehicle liability insurance for any automobile used in an amount not less than a one million dollar (\$1,000,000) combined single limit.

Excepting the Worker's Compensation and Professional Liability insurance secured by the CONSULTANT, the CITY will be named on all policies as an additional insured. The CONSULTANT shall furnish the CITY with verification of insurance and endorsements required by the AGREEMENT. The CITY reserves the right to require complete, certified copies of all required insurance policies at any time.

The additional insured endorsement shall provide that to the extent of the CONSULTANT's negligence, the CONSULTANT's insurance shall be primary and non-contributing as to the CITY, and any other insurance maintained by the City shall be excess and not contributing insurance with respect to the CONSULTANT's insurance.

All insurance shall be obtained from an insurance company authorized to do business in the State of Washington. The CONSULTANT shall submit a verification of insurance as outlined above within fourteen (14) days of the execution of this AGREEMENT to the CITY.

No cancellation of the foregoing policies shall be effective without thirty (30) days prior notice to the CITY.

The CITY will pay no progress payments under Section V until the CONSULTANT has fully complied with this section. This remedy is not exclusive; and the CITY may take such other action as is available to them under other provisions of this AGREEMENT, or otherwise in law.

**XIV
EXTRA WORK**

The CITY may at any time, by written order, make changes within the general scope of the AGREEMENT in the services to be performed.

If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under this AGREEMENT, whether or not changed by the order, or otherwise affects any other terms and conditions of the AGREEMENT, the CITY shall make an equitable adjustment in the (1) maximum amount payable; (2) delivery or completion schedule, or both; and (3) other affected terms and shall modify the AGREEMENT accordingly.

The CONSULTANT must submit its "request for equitable adjustment" (hereafter referred to as claim) under this clause within thirty (30) days from the date of receipt of the written order. However, if the CITY decides that the facts justify it, the CITY may receive and act upon a claim submitted before final payment of the AGREEMENT.

Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the CONSULTANT from proceeding with the AGREEMENT as changed.

Notwithstanding the terms and conditions of the first two paragraphs above, the maximum amount payable for this AGREEMENT, shall not be increased or considered to be increased except by specific written supplement to this AGREEMENT.

**XV
ENDORSEMENT OF PLANS**

If applicable, the CONSULTANT shall place its endorsement on all plans, estimates or any other engineering data furnished by them.

**XVI
COMPLETE AGREEMENT**

This document and referenced attachments contains all covenants, stipulations and provisions agreed upon by the parties. No agent, or representative of either party has authority to make, and the parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein. No changes, amendments, or modifications of the terms hereof shall be valid unless reduced to writing and signed by the parties as an amendment to this AGREEMENT.

**XVII
EXECUTION AND ACCEPTANCE**

This AGREEMENT may be simultaneously executed in several counterparts, each of which shall be deemed to be an original having identical legal effect. The CONSULTANT does hereby ratify and adopt all statements, representations, warranties, covenants, and agreements contained in the proposal, and the supporting materials submitted by the CONSULTANT, and does hereby accept the AGREEMENT and agrees to all of the terms and conditions thereof.

In witness whereof, the parties hereto have executed this AGREEMENT as of the day and year first above written.

CONSULTANT

CITY OF REDMOND

By: _____

By: _____

John Marchione, Mayor

Title: _____

ATTEST: _____

City Clerk

APPROVED AS TO FORM:

City Attorney

Exhibit “A”



MEASUREMENT RESEARCH CORPORATION

4126 4th Street NW - Gig Harbor, WA 98335
 (253) 851-3200, FAX 851-4334, Mobil 225-2373
 e-mail derald@mrc-corp.com

December 13, 2010

Mel Peifer
 City of Redmond
 Public Works, MS: CHPWT or 2NPW
 15670 NE 85th Street
 PO Box 97010
 Redmond, WA 98073-9710
 mpeifer@redmond.gov

Mel,

Attached is a “Scope of Work” for rating your Arterial, Collector and Residential pavements. We will walk each street and measure and record all the pavement distresses data outlined in the attached Scope of Work. We use the rating procedures recommended by the NWPMA/WSDOT with some enhancements to better meet the needs of local agencies. These rating procedures also conform to the ASTM D6433-99 Standard for pavement distress ratings. We will also collect the roadside inventory data outlined in Attachment B if requested. The final data will be added to your current PMS database and a draft Ten-Year Maintenance and Rehabilitation report will be provided. The following is a budget estimate for these services. Please feel free to make any needed changes to this task list.

2011 - BUDGET ESTIMATE for City of Redmond					
	Task	Qu	Units	Unit Cost	Cost / Task
1	Pavement Distress Ratings - Arterial & Collectors	146	Lane miles	\$95	\$13,870
2	Pavement Distress Ratings - Residential/Local Access	184	Lane miles	\$85	\$15,640
3	Roadside Inventory Data Collection	137	Centerline Mi	\$15	\$2,055
4	GIS map preparation, editing & alignment to PMS	8	Hourly	\$150	\$1,200
5	Data entry, editing, verification & importing	8	Hourly	\$150	\$1,200
6	Travel to & from Job Site (vehicle costs + Bridge Toll)	1200	Miles	\$0.60	\$720
7	Travel to & from Job Site (salary costs)	28.5	Hours Driving	\$25	\$2,854
8	Total estimated days of rating with a team of 4	11.4	Days		
9	Rehabilitation & Repair Analysis Plan & Draft rpt	1	Hard Copy		\$9,500
	Round Trip Driving Miles to Job Site	100	Rnd Trip Miles	-	-
Estimate based on miles shown & will be adjusted to actual miles rated when completed. Travel & Per Diem are based on 4.5 miles per rater per 10 hour day - 4 days a week with 4 Raters / Job.				Total Cost	\$47,039

Exhibit “A”

We will schedule these services as early as possible and will notify you as to the estimated start date when the final contract is signed. We average about 4.5 centerline miles a day per rater and must have dry weather to rate. We will provide you with the final report within three weeks of completing the fieldwork.

If possible and applicable we would like the following items from your agency:

1. GIS or Cad centerline and right-of-way digital map (Shape) file (or hard copy map)
2. Latest copy of your database if modified since last ratings or this is a new contract
3. Past construction history since last distress survey
4. Any special instructions or concerns
5. Unit cost for maintenance and repairs
6. Any desired repair strategy information

Thank you for considering our services and please feel free to interact with me or our raters in any way you wish. Just be sure to let us know what your plans are.

Sincerely,

Derald Christensen

Exhibit “A”

CITY OF REDMOND

**DETAILED SCOPE OF WORK
for
MANUAL PAVEMENT DISTRESS SURVEY
and
MULTI-YEAR REHABILITATION PLAN**

December 13, 2010



Measurement Research Corporation
4126 4th Street NW
Gig Harbor, Washington 98335
253-851-3200, Fax 851-4334, Mobil 225-2373
e-mail derald@mrc-corp.com

Exhibit “A”

SCOPE OF WORK for Field Rating/Data Collection Operations

Objective

MRC will perform a pavement surface condition survey on all of the City of Redmond’s arterial, collector and residential streets. This survey will comply with current Washington State Department of Transportation’s policies and guidelines as set forth in their rating manual provided for local agencies. This procedure also conforms to the ASTM D6433-99 Standard for pavement distress ratings and if desired can be modified to meet any special needs your agency may require. The option B or extended procedures (recording of actual quantities of distress severity) outlined in the NWPMA/WSDOT Rating’s Manual and in the CenterLine Raters Manual will be used and all distresses will be measured and quantified as outlined in this contract and in this scope of work. Both of these manuals are available on request. Upon request we can also use the MTC or PAVER Rater’s Manual and procedures.

If possible and applicable we will need the following items from your agency:

- GIS or Cad centerline and right-of-way digital map (Shape) file (or hard copy map)
- Latest copy of your database if modified since last ratings or this is a new contract
- Past construction history since last distress survey
- Any special instructions or concerns
- Unit cost for maintenance and repairs
- Any desired repair strategy information

RATING STREETS - PAVEMENT DISTRESS SURVEY

Procedure

MRC personnel will walk each street and count and measure the distress types shown in the WSDOT rater’s manual. Where necessary the raters will walk the streets in both directions. If necessary the raters will do the more heavily traveled streets on weekend mornings, but may require a vehicle with a flashing light to travel with the raters on some streets, this vehicle will be provided by MRC. The raters generally drive each street prior to walking it. If records show that the segment was constructed or overlaid within the last two years the raters have the option to use this visual drive through to do the rating. The streets to be surveyed will include all of the arterial, collector and residential streets within the City.

Area or length (the quantity) of each distress will be measured by the raters pacing the distance/s involved and enter the data directly into handheld PC’s for each individual occurrence of each individual distress severity level. A sample copy of the rating forms/screens and a summary of the descriptions are attached. As each segment is walked, the data is accumulated on predefined rating forms on the handheld PC’s. Once the distress data is collected, it is imported into the PMS database at MRC’s office. Any required edits or changes to the database will be done at that time or in the field during the data collection. We will make any changes available for your review prior to finalizing them if desired.

The setup for the data that is used in the handheld PC’s requires a centerline GIS digital map with street/road segmentation that match the pavement roadway segmentation in your agency’s PMS database. In most cases MRC maintains these digital maps internally and makes modification as instructed by the agency (or as found in the field) and in other cases these maps are provided to MRC. If no digital centerline map is available from your agency, MRC will develop the needed map as part of this rating contract.

Exhibit “A”

Ride information will not be collected. This is not possible with a walking survey. The ride data is handled separately within the PMS program and will have no effect on the index scores being computed.

We have the raters estimate rutting to the nearest ¼ inch and it is not rated unless the average depth is greater than ¼ inch. If there is localized rutting, such as at intersections we classify this as sags and humps. The use of rutting in the program (WSDOT Manual) assumes that you have rutting over the full segment. Rutting is measured visually and recorded as the average rutting over the full segment in ¼ in increments. No attempt to distinguish between rutting due to pavement or base failure and wear will be made. This is due to the difficulty in determining this without further testing of the pavements involved. The rating manual definition of this distress only requires the measurement of the severity, it is assumed that the extent includes the full segment being measured. To make more detailed measurements of rutting would require traffic control and non-destructive testing and analysis that is beyond the scope and requirements of this contract. This distress is generally not a problem on local agency streets aside from localized rutting at intersections.

The distress survey will include the following distresses. The measurement of each distress will be made over the full segment surface area.

Flexible Pavement:

1. Rutting and Wear
2. Alligator (or Structural Fatigue) Cracking
3. Longitudinal Cracking – Structural
4. Longitudinal Cracking – non-Structural
5. Transverse Cracking
6. Raveling
7. Flushing
8. Patching - Maintenance
9. Patching - Utility cuts
10. Corrugations & Waves
11. Sags & Humps
12. Block Cracking
13. Pavement Edge Condition
14. Crack Seal Condition

Rigid Pavement:

1. Cracking
2. Joint and Crack Spalling
3. Pumping and Blowing
4. Faulting and Settlement -
5. Patching
6. Raveling and Scaling
7. Blowups
8. Wear/Rutting
9. Crack Seal Condition

Reducing or analyzing the pavement distress data

The processing and categorization of severity and extent of the above noted pavement distresses shall be defined by the Pavement Surface Condition Field Rating Manual for Asphalt Pavement developed by the NWPMA and WSDOT. Or if desired the ASTM manual can be used. This scope of work contains the distress summary forms/screens used for these distresses. The categorizing of the extent information shall include individual extent amounts, in lengths, areas or number of events as defined by each distress type, for each of the severity

Exhibit “A”

levels. Exceptions or corrections to this manual which will be conformed to during your rating operations will include the following:

1. Patching and alligator extent will be measured in terms of the full pavement area in place of wheel path.
2. Patching severity will be rated using the following descriptions. All distress within the patch will be rated or included/rated with the other distresses. While the condition of the patch will be rated separately base on how well it has held up.
 - Low - Patch is in good condition. Ride quality is observed as low severity or better.
 - Medium- Patch is moderately deteriorated and/or ride quality is observed as medium severity
 - High - Patch is badly deteriorated and/or ride quality is observed as high severity. Patch needs replacement.
3. Utility cut patching will be rated separately but will not be included in the score calculations. (All cracks and other distresses are recorded separately.)
4. Block cracking is to be measured in square feet of total area affected.

Quality Control

The calibration and quality control used with the raters involves two procedures. First, the different raters (if more than one rater is used) are required to rate the same sections and comparisons are made to insure that the raters agree. This is done on three to four segments once a week. Second, the rating supervisor will go out and rate several segments on a weekly base to insure the consistency of the ratings.

In all cases where the raters cannot see both sides of the street or cannot get into the street do to traffic they will walk both sides of the road. In extreme cases, heavy traffic and/or no shoulders, the streets will be rated from the windshield of a slow moving vehicle.

We provide thorough training before we start our rating season and retrain/check each rater on a regular basis or as needed. We also have regular discussion periods prior to going out into the field. You are encouraged to interact with this process in any way you wish as long as we have a clear understanding up front as to the desired involvement.

Task 2 - DATA ENTRY/IMPORTING AND EDITING

Any data entry and editing will be done following the completion of the field data operations. The rating data will be entered directly into your PMS database while in the field using handheld “Pocket PC” devices. Any required edits and updates to the database will be done during the data collection and/or data entry operations.

Task 3 - DRAFT FULL REHABILITATION ANALYSIS & REPORT

When the data collection and entry is completed, MRC will perform a 10 Year Maintenance and Rehabilitation (MR&R) Plan using the CenterLine PMS software. Your agency will provide MRC with all unit cost data and desired MR&R strategy information prior the analysis. The final product of this analysis will be provided to your agency in a hard copy draft report and will be included within the PMS Software.

Final Product and Schedule

The final product will be a database with the new rating data entered into it along with any edits, additions or changes found in the field during the rating operations. This updated database along with detailed printed draft reports showing the results of the survey will be included plus an updated field GIS shape file map.

Exhibit “A”

MRC staff will be assigned to this project full time. We will schedule these services as early as possible and will notify you as to the estimated start date when the final contract is signed. We average about 5 centerline miles a day per rater and must have dry weather to rate. We will provide you with the final report within three weeks of completing the fieldwork.

Billing

MRC will bill for the distress ratings prior to completing the full contract. When the field distress ratings are completed, MRC will enter the data into the database and will provide the City with an Excel file (and GIS Map format) summarizing the distress ratings and final edits to the database. Once the City has reviewed this data and accepted it, MRC will bill for this portion of the contract. Final billing will follow the completion of all tasks listed in the scope of work.

Budget

The following is a Budget Statement for these services.

3.0	2011 - BUDGET ESTIMATE for City of Redmond				
4.0	Task	Qu	Units	Unit Cost	Cost / Task
1	Pavement Distress Ratings - Arterial & Collectors	146	Lane miles	\$95	\$13,870
2	Pavement Distress Ratings - Residential/Local Access	184	Lane miles	\$85	\$15,640
3	Roadside Inventory Data Collection	137	Centerline Mi	\$15	\$2,055
4	GIS map preparation, editing & alignment to PMS	8	Hourly	\$150	\$1,200
5	Data entry, editing, verification & importing	8	Hourly	\$150	\$1,200
6	Travel to & from Job Site (vehicle costs + Bridge Toll)	1200	Miles	\$0.60	\$720
7	Travel to & from Job Site (salary costs)	28.5	Hours Driving	\$25	\$2,854
8	Total estimated days of rating with a team of 4	11.4	Days		
9	Rehabilitation & Repair Analysis Plan & Draft rpt	1	Hard Copy		\$9,500
40	Round Trip Driving Miles to Job Site	100	Rnd Trip Miles	-	-
Estimate based on miles shown & will be adjusted to actual miles rated when completed. Travel & Per Diem are based on 4.5 miles per rater per 10 hour day - 4 days a week with 4 Raters / Job.				Total Cost	\$47,039

ATTACHMENT A

Walking Pavement Distress Rating System

Severity and Extent Summary for Manual Walking Surveys

The following is a summary of each pavement distress type and its quantification in terms of severity (how bad the distress is) and extent (over what area/length does it exist). A more detailed description is included in the WSDOT or CenterLine rating manual. These will be the distress types and quantification procedures used in this survey.

FLEXIBLE PAVEMENT DISTRESSES – WALKING SURVEY

1. Rutting and Wear

Severity: Average Rut Depth over the segment.
Extent: Assume full segment length.
Data Entry: Single entry in 0.25 inch increments.
Comments: Estimate mean rut depth in inches.

2. Structural Fatigue (Alligator) Cracking

Severity: (Crack size and Pattern)
 Low Branching inner connecting longitudinal cracks.
 Medium Fully developed alligator pattern with some spalling
 High Sever spalling and pumping
Extent: Area in sq. feet.
Data Entry: Area of each severity in sq. feet.

3. Structural Fatigue Related Longitudinal Cracking

Severity: (Crack size)
 Low <1/4 in. wide.
 Medium >1/4 in. wide.
 High >1/4 in. Spalled.
Extent: Linear feet.
Data Entry: Length in feet for each severity - enter separately for each type of longitudinal cracks
Comments: Fatigue or Alligator caused longitudinal cracks are the early or first stage of distress #2. These cracks have a distinct broken pattern and occur in the wheel path.

4. Joint Reflective and Construction Joint Longitudinal Cracking

Definition is same as #3 – Structural Fatigue Related Longitudinal Cracking - Except these cracks tend to be a straighter and more distinct cracks which are associated with a reflected crack or construction joints

5. Transverse Cracking

Severity: (Crack size)
 Low <1/4 in. wide.
 Medium >1/4 in wide.
 High >1/4 in. Spalled.
Extent: Linear feet
Data Entry: Length in feet for each severity
Comments: Count alligator cracking in the transverse direction as high transverse - cracks. Include transverse joint reflective cracks.

6. Raveling

Severity: Low The aggregate has started to wear away
 Medium The aggregate has worn away & is rough
 High The surface texture is deeply pitted.
Extent: Localized = 1 – Isolated patches of raveling
 Wheel paths = 2 – Both wheel paths are fully raveled
 Entire lane = 3 – Complete surface is raveled
Data Entry: The predominate extent in the representative severity column. (one data entry)

Exhibit "A"

7. Flushing or Bleeding

Severity: Low Minor amount of aggregate is covered
Medium Significant amount of aggregate is covered
High Most of the aggregate is covered

Extent: Localized = 1 – Isolated patches of flushing
Wheel paths = 2 – Both wheel paths are fully flushed
Entire lane = 3 – Complete surface is flushed

Data Entry: The predominate extent in the representative severity column

Comments: Rate raveling and flushing separately.

8. Patching - Maintenance

Severity: Low Good condition.
Medium Moderately deteriorated - ride medium.
High Badly deteriorated - ride poor.

Extent: Area

Data Entry: Area in sq. feet for each severity - Include any distress data separately in its appropriate type

Comments: Utility patching is rated separately.

9. Patching – Utility Rated the same as #8 – Maintenance patching

10. Corrugations and Waves

Severity: Low 1/8 in. to 2 in. change per 10 feet.
Medium 2 in. to 4 in. change per 10 feet.
High Over 4 in. change per 10 feet.

Extent: Area

Data Entry: Area in sq. feet for each severity.

11. Sags and Humps

Severity: Low 1/8 in. to 2 in. change per 10 feet.
Medium 2 in. to 4 in. change per 10 feet.
High Over 4 in. change per 10 feet.

Extent: Area

Data Entry: Area in sq. feet for each severity

12. Block Cracking

Severity: Low 9x9 foot and larger blocks
Medium > than 5x5 to 8x8 foot blocks
High > less than 5x5 foot blocks

Extent: Area

Data Entry: Area in sq. feet for each severity.

13a. Edge Raveling Extent, 13b Edge Patching Extent & 13c Edge Lane < 10 feet

Severity: Not defined.

Extent: The actual length of distress

Data Entry: Enter the actual length of distress – can be up to twice the length

Comment: Rate/Include both sides of the street.

14. Crack Seal Condition

Severity: Low Crack sealant is in good condition.
Medium Crack sealant is open and allows water into crack.
High Crack sealant is missing or non-existent.

Extent: % of total cracks that are sealed.

Data Entry: The predominate severity (condition) of the % of total cracks that are sealed

Comments: The Low, Medium & High extent values must add to 100%

Exhibit “A”

PORTLAND CEMENT CONCRETE DISTRESSES

Severity and Extent Summary

1. Cracking

<u>Severity:</u> Low	1 crack per lane panel
Medium	3 cracks per panel
High	4 or more cracks per panel
<u>Extent:</u>	Enter the number of slabs for each severity

2. Joint and Crack Spalling

<u>Severity:</u> Low	1/8-in. to 1-in. spalls
Medium	1-in. to 3-in. spalls
High	Greater than 3-in. spalls
<u>Extent:</u>	Enter the number of slabs for each severity or group as below

3. Pumping and Blowing

<u>Severity:</u> Low	Slight shoulder depression, no staining
Medium	Significant depression, slight staining
High	Depression, significant staining
<u>Extent:</u>	Enter the number of slabs for each severity

4. Faulting and Settlement

<u>Severity:</u> Low	1/8-in. to 1/4-in. faulting or settlement at joints or cracks.
Medium	1/4-in. to 1/2-in. faulting or settlement at joints or cracks.
High	Over 1/2-in. faulting or settlement at joints or cracks.
<u>Extent:</u>	Enter the number of slabs for each severity

5. Patching

<u>Severity:</u> Low	1% to 9% of the panel area is patched.
Medium	10% to 24% of the panel area is patched.
High	25% or more of the panel area is patched.
<u>Extent:</u>	Enter the number of slabs for each severity

6. Raveling or Scaling

<u>Severity:</u>	
Slight:	The aggregate or binder has started to wear away but has not progressed significantly. The pavement only appears slightly aged and slightly rough.
Moderate	:The aggregate and/or binder has worn away and the surface texture is moderately rough and pitted. Loose particles may be present, and fine aggregate is partially missing from the surface.
Severe:	The aggregate and/or binder have worn away significantly, and the surface texture is deeply pitted and very rough. Fine aggregate is essentially missing from the surface, and pitting extends to a depth approaching one half the coarse aggregate size.
<u>Extent:</u>	Enter the number of slabs for each severity or group

7. Blowups

Severity/Extent: - Number of occurrences per segment

8. Wear

<u>Severity:</u> Low	1/4 in. to 1/2 in.
Medium	1/2 in. to 3/4 in.
High	over 3/4 in.
<u>Extent:</u>	The extent or wear is assumed to be the full length of the segment.

Exhibit "A"

ATTACHMENT B

Field Rating Software

MRC provides a series of field data collection software packages designed to run on Windows Mobil Pocket PC devices using ArcPad GIS. The Field Rating software package discussed here, includes Roadside Inventory data along with the NWPMA/WSDOT rating data entry. These input forms are clearly separated by individual tabs across the top or bottom of the screen and the Rating and/or Attribute forms, depending on your application, can be used independent of each other.

The data forms are displayed by tapping your stylus on the desired centerline map segment. You can also draw new line segments or edit existing ones while in the field. It is then a simple matter of overlaying the field map with the original and making any desired edits to your base map from what was collected in the field.

The actual map and data are created by using standard SQL type joins on your PMS data with the map data. CenterLine PMS has menu options that will create the desired table and import the results back into the PMS.

One of the key options that help with the accuracy and speed of the data entry is the "AutoSum" feature, see following figures for more details. This feature allows you to enter a value in the "AutoSum" text box and then by just tapping the desired distress severity text box the number will be added to the previous value. The data entered into the "AutoSum" box and can be entered directly by hand (Stylus) or you can use the "Length", "Width" or "Area" text box along with the percent multiplier feature to enter a fraction of or multiples of the segment length, width or area. Once a segment is rated, the GIS map line turns red. Many other software features are available to assist the operator in data entry and in eliminating any need for paper and pencil notes. If you've ever done field data collection before, you will understand the true pleasure and convenience of having your complete database in the palm of your hand.

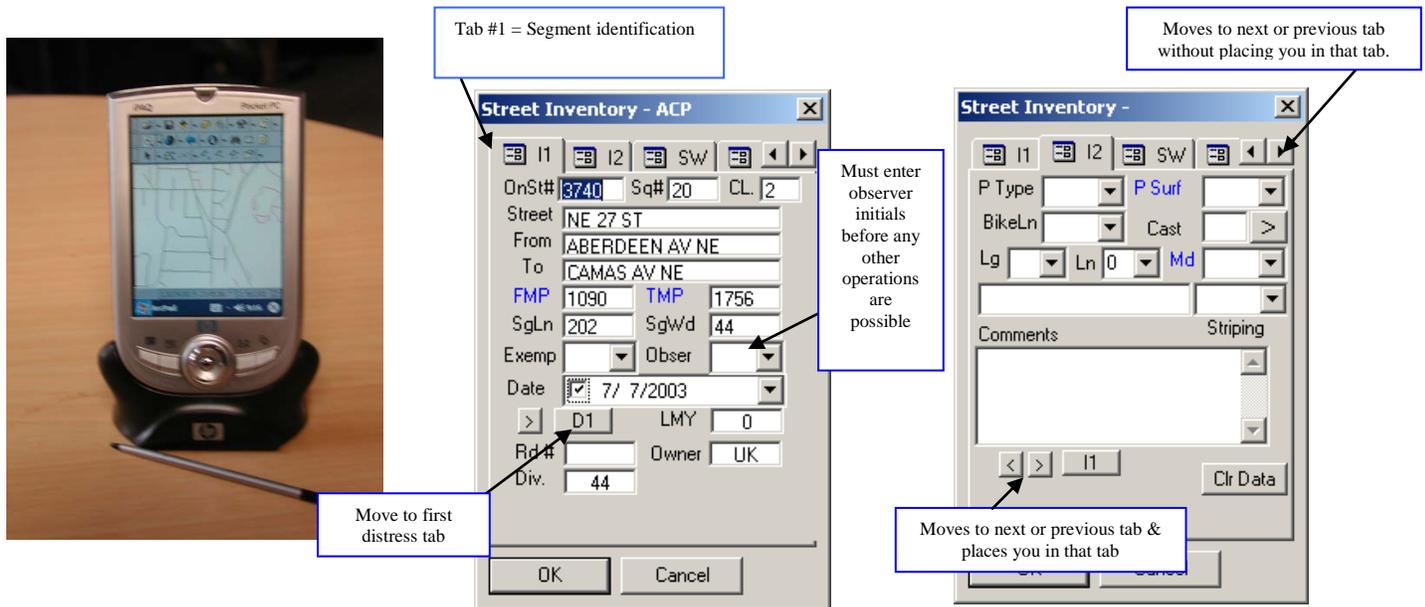


Exhibit "A"

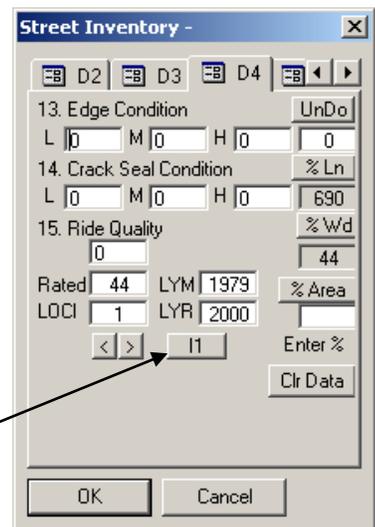
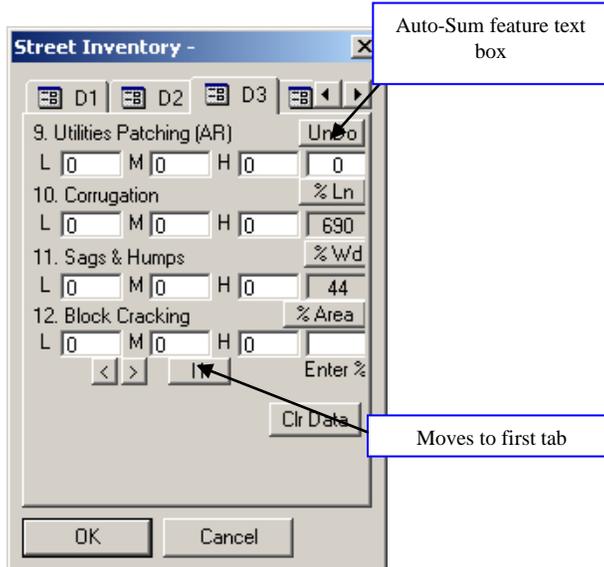
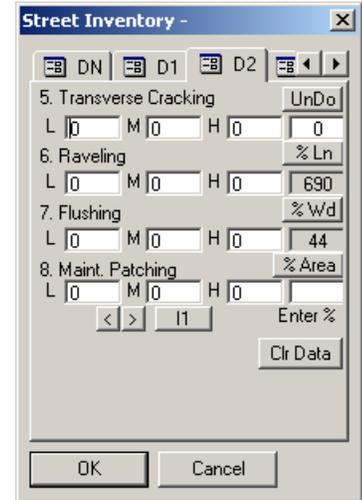
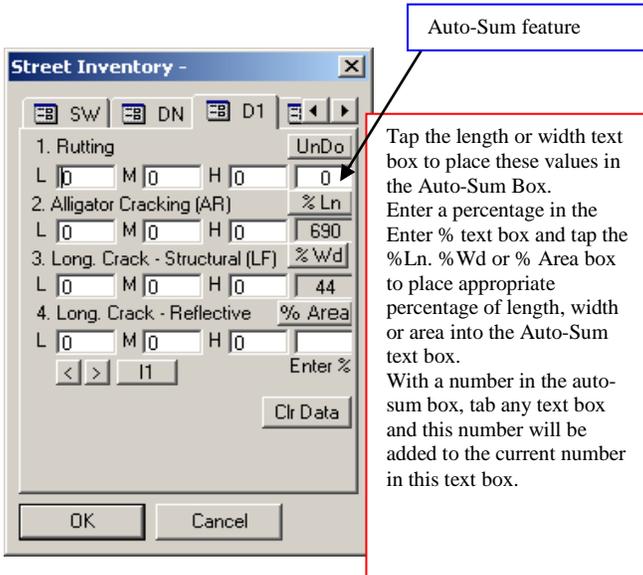
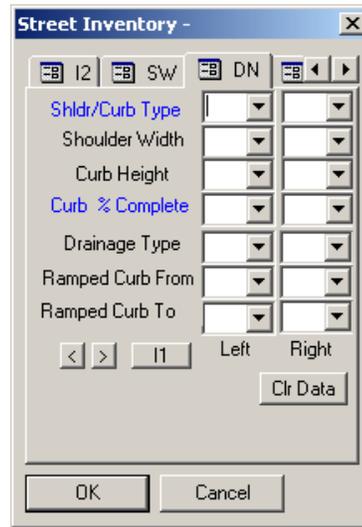
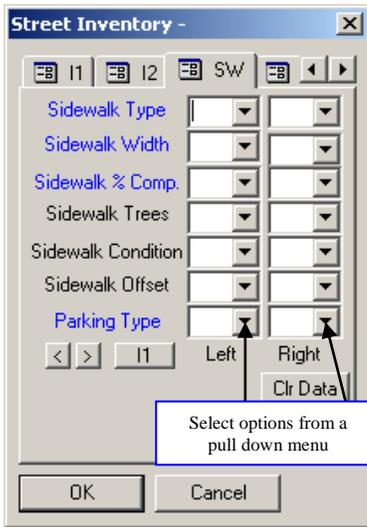


Exhibit “A”

ATTACHMENT C

Roadside Definition & Inventory Data Field Definitions & Discussion

General Discussion

Measurement Research will also collect the following roadside inventory data if requested and use the following definitions and procedures in adding new segments and in editing the existing data for a walking survey. The roadside inventory data outlined in this attachment and the related procedures are included with the field data collection operations, which also include the pavement distress data outlined in Attachment A. All data shown on the field PDA data forms included in “Attachment A” are included.

The roadway or segment definition refers to the data that defines or distinguishes one segment from another. This includes the “on street id or road number”, the “sequence or segment number”, the “street name” and the “from and to information”. The “from” and “to” information may include either the “from/to descriptions” or the “from/to reference points” (mileposts) or both. In general the Cities do not include from/to reference data and the counties always have the from/to milepost/reference data and in most cases the from/to descriptions as well

The roadside inventory refers to any physical inventory item associated with a given section of roadway or adjacent to the roadway. This includes sidewalks, curb & gutter, wheelchair ramps, bike lanes, manholes, stripping etc. The following is a detailed description of the items which are to be included in this survey.

Segment termini/intersections: When inventorying items within or at the intersection always include all items or distresses with the higher functional classification (higher traffic) roadway. If classification is the same or you are not sure mentally split the intersection by drawing diagonal lines between opposite corners (an X) and include everything within this portion to the segment.

Other considerations: The raters check all existing data carefully and make any needed changes or additions to the existing data. All data on the top of each form or the first few tabs on your pocket PC are to be checked and/or filled in. Special requests may be made for a given agency, like re-measuring all pavement widths etc. However, in general, lengths and widths will only be re-measured if current values are obvious in error. The following is a list of these items and how they are measured or how the data is to be collected or interpreted.

The raters can carry a measuring wheel with them while rating (this is always done during the learning phase) and always keep a copy of Appendix B & C with them at all times. This full manual is carried with each rater until they become familiar with all the data contained within it. The complete CenterLine Raters Manual is also carried in their vehicle at all times. All distress extent measurements, such as lengths and widths, will be estimated and/or paced by the rater. Each rater calibrates their individual pace by walking a known distance; this will be re-checked at regular intervals.

Exhibit “A”

All of the data provided below will be checked carefully, and any necessary changes or additions made. Be sure to check the street names and try to make sure the lengths and widths look reasonable. The Raters will only re-measure the lengths and/or widths if they are obviously bad or if instructed to do so, for a given agency. Be sure to check the pavement type. There should always be a segment break at the intersection of all agency owned streets. To create a new segment, the rater just adds a new line to the map and fills in the pertinent data.

Individual Data Items on Field Forms/Pocket PC tabs

1. On street number

This number is provided from the database and is always displayed on the PDA forms. However, if new segments are created by splitting existing segments or for segments, which need to be added to the database, this number will need to be added. The rater can let the data entry person add this number or it can be added in the field. If a current segment is being split, this will be the same number as the adjacent segment/s. If it is a completely new segment try to find the same street name on your database listing and use the same number. If it is not on this list, create a new number that would place the street in its proper alphanumeric order.

2. Sequence number

This number defines the segment and its sequential order in the database. When assigning new numbers select numbers which place the segment in its proper sequential order within the “on street number” for that street. If new segments are being created in the field and there is more than one segment for this “on street number” this sequence number must be entered. Generally, these numbers are sequenced in a west-to-east and south-to-north direction.

3. From & To Description

This is the descriptive information associated with the termini of each segment. It should always be present unless instructed otherwise. Some counties have only mile posting with these two fields left empty. If this is the case the rater is instructed to discuss this with their supervisor. Enter the full proper cross street name or end of road acronym if the segment ends. The following are the recommended abbreviations for the end of road condition. If others are present within the database, try your best to stay consistent with them, however, if they are inconsistent use the following. If the rater has questions about this please they are to discuss this with your supervisor. There is no consistency in the end of road type description between agencies and if you have questions or find inconsistencies within a single agency use the acronyms below. The rater will always edit this field if he finds errors or if they are entering new segments.

EORN, S, E, W End of road north, south, east or west
CDSN, S, E, W End of road north with a cul-de-sac
CTLN, S, E, W City limits or boundary north, south, east or west
COLN, S, E, W Count limits or boundary north, south, east or west

4. Bus/Truck Routes

If public bus stops or bus route signs are present enter the actual bus route number/s on the form. This should only be done if this information is obvious, unless instructed otherwise. Also, if school buses are observed, add “Sch” to this cell.

Truck Routes - This data will be provided to MRC by the agency and will include agency specified truck routes. These routes will be flagged in the database. The rater will not be responsible for truck route data unless an extreme case is observed or instructed by their manager.

5. # Casting

Count the total number of castings in this segment. A casting is defined as any object, which has been placed into the pavement which would have to be accounted for (raised) when placing an overlay. This would include the following:

Exhibit “A”

Values Covers
 Monuments
 Catch Basins & Gratings – if they extend into the pavement
 Manholes - Etc.

6. Pavement. Type

This is the pavement type as stored in the database. The actual surface type may differ. An example would be a chip or slurry seal over an existing ACP pavement. The rater will change this variable to the actual surface type if it is different and not in the comments if the underlying pavement type appears to be different or what was originally in the database. The following surface types are to be used. If the rater is unsure or if he feels that it is other than the options listed below, enter what you see into the comments. Refer to Appendix A for details and photographs of the different pavement types. If the rater finds more than one pavement type within a single segment, they will be rated separately on separate line segments.

ACP	Asphalt Cement Concrete
APC	Asphalt Cement Concrete over Portland Cement Concrete
BST	Chip Seal
BTS	Slurry Seal
PCC	Portland Cement Concrete
BRK	Brick Surface
STN	Coble Stone Surface
GRV	Gravel of surface
DRT	Dirt or natural soil surface

Note: If there is a decorative finish, such as a brick pattern, on the surface, add the appropriate acronym using a slash. For example, use PCC/BRK for a brick pattern stamped into a PCC pavement surface. Also, most modern or newer brick pavements will have a PCC base with PCC curbs, if this appears to be the case, please note this in the comments.

7. Observer

Enter your initials here.

8. Speed

If the speed limit is posted, enter it in this field

9. Lanes

This is the number of traveled lanes. The rater will include turning lanes if they run the full length of the segment, but not if they are just at the intersections. Do not include parking lanes.

10. Class

This is the functional classification of the roadway and will be provided unless other arrangements are made. The meaning of these numbers will change from agency to agency but in general will follow the designations given below. If it is obvious that a street classification is not correct, this will be noted in the comments. An example would be a roadway, which is specified as residential and you see heavy traffic on it or if the previous and following segments are the same but do not agree with the current segment.

	<u>Cities</u>	<u>Counties</u>
1	Arterial	Urban Arterial
2	Major Collector/Arterial	Urban Major collector
3	Minor Collector/Arterial	Urban Minor Collector
4	Residential (Collector)*	Urban Local Access
5	Residential*	Rural Major Collector
6		Rural Minor Collector
7		Rural Local Access
8	Others unique to each agency – ex. State routes, alleys, private etc.	

Exhibit “A”

* Most Cities will only have one residential classification

11. Exempt

If this field is set to “Y”, this segment is exempted from the given agency’s responsibility for maintaining this segment and unless instructed otherwise does not need to be rated. This is generally used for state routes, private roads etc. and is provide from the database. If what is observed in the field does not appear to agree with the above specifications, please note this in the comments

12. Segment/Pavement Length:

This is the segment length measured from the center of each intersection or to the actual end of pavement when the segment ends. These numbers are always provided with the form/database unless the lengths need to be measured by the rater. Unless specified otherwise, this number need not be change unless the existing length is obviously incorrect. Use your wheel or the odometer in the Van to measure any questionable lengths.

13. Segment/Pavement Width

This is the pavement width. It generally includes parking lanes if there are curbs, but not the shoulders if there are no curbs. Shoulder types and widths are specified in other fields on this form. In general, the rater will include the pavement surface area that would be paved if an overlay were to be applied.

14. Shoulder/Curb Type- Shoulder and/or Curb type.

V	Vertical Curb only
VG	Vertical Curb with gutter
RC	Rolled or Extruded PCC Curb
TE	Rolled or Thickened edge ACP
PV	Paved shoulder - ACP or BST
GV	Gravel
DR	Dirt
N	No shoulder

Note: If more than one curb/shoulder type exists with in the same side of a segment enter both options with a slash between them and specify in the comments. Example: VG/N

15. Shoulder. Width – Shoulder width

This is the shoulder width to the nearest ½ foot. In general this would be measured from the pavement edge to the beginning edge of the ditch, if a ditch exists. In many cases this can be hard to determine, just use your best judgment or call for help.

16. Minimum Curb Ht – Minimum remaining curb height

Estimate the minimum remaining curb height to the nearest inch.

17. Drainage System - Storm System or Drainage Type

This can be recorded as open or close (existing or not) or as to the type of drainage system. Generally the open & closed method is used with windshield type data collection and the more detailed with walking surveys. If there is any type of catch basin system this would be considered a closed drainage system.

Open or Closed drainage

O Open ditch or nature drainage

C Closed drainage – catch basins

- or -

CBG Curb with grate - closed drainage

CG Curb without grate - Open drainage

DH Open ditch

N No drainage

CLV# Culverts in this segment, where # = number of culverts

Exhibit “A”

Note: If more than one drainage type/structure exists with in the same side of a segment enter both options with a slash between them and specify in the comments. Example:
DH/CLV#

18. Parking

Enter “L”, “R” or B (left, right or both sides of roadway). Do not enter unless actual parking space is present and obviously intended. If asked to specify parallel or angle parking add a /P or /A. For example L/P would indicate parallel parking on left side only.

19. Bike Lanes

Enter a “L”, “R” or “B” (left, right or both sides of roadway) if present

20. Sidewalk Type

Enter the surface type of the sidewalk or trail. Enter PCC, ACP or DRT

21. Sidewalk Width

This is the sidewalk width to the nearest ½ foot

22. Sidewalk Cond. – Sidewalk condition.

Rated using a score of 1 to 3, with 3 being the best. A 1 indicates a hazard to pedestrians. The rater is to check with their your supervisor to be sure this data is to be collected for a given agency.

23. Sidewalk % Comp

Percent of segment with sidewalks. This is recorded separately for each side.

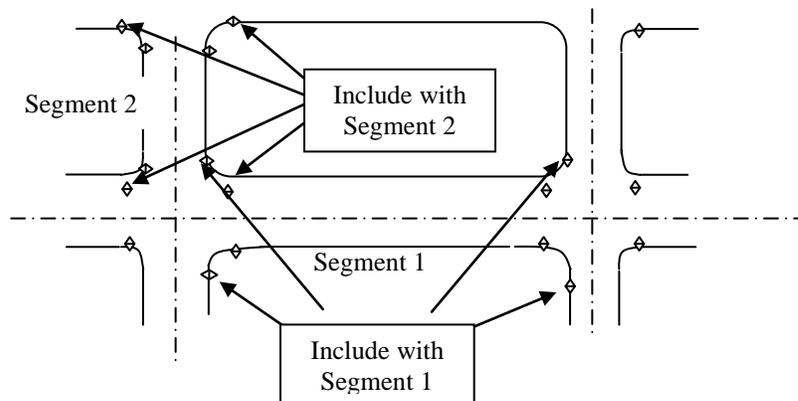
24. Ramped Curb/Fr – Ramped curb/s at the “From” end of the segment. Only include the curb ramps, which are associated with the direction of travel for the segment being rated. See diagram below.

- Y = Non ADA approved ramp.
- ADA = ADA approved ramp.
- Blank or N = No ramp.

25. Ramped Curb/To - Ramped curb/s at the “To” end of the segment.

- Y = Non ADA approved ramp.
- ADA = ADA approved ramp.
- Blank or N = No ramp.

Note: Curb ramps should only be included with the appropriate segment. The following graphic shows how to inventory curb ramps with the segment/s. If there is only one centrally located curb ramp include this with both segments but place a “/C” after the “Y” or “ADA” ex. ADA/C. Special or additional instructions may be provide for a given agency. Also, if intersections are being inventoried and/or rated separately, the rater will include the ramps with the intersections only, unless instructed differently.



26. Striping

If the street has markings or striping this is entered here. The following is a list of acronyms to be used. Enter all that apply to a given segment, separated by a slash. For example,

Exhibit “A”

CSK/CSD/FG-R/CX-F would indicate both a skip and solid centerline with a fog line on the right side only plus crosswalk striping at the from intersection.

CSK	= Alternate or skip type centerline
CSD	= Solid centerline
CDD	= Double centerline
LSL	= Lane separation lines
FG	= Fog lines
BT	= Buttons
TRN	= Turning lane markings
CX	= Crosswalk
SP	= Speed bumps
TR	= Turning circle-pedestrian protection
R, L, F, T B	= Right, Left, From, To or Both sides of roadway only
Blank	= No striping

27. Lighting

Enter a “Y” if street lighting is present

28. Comments

Enter any desired information, which you feel the agency or MRC should be made aware of. If these comments are related to issues that need attention you should call or make your supervisor aware of them. Always include the current year with your comments. For example, 2010 – New overlay

29. Distresses

Follow the separate instructions included in the first part of this manual.

30. Miscellaneous Data

The date, daily sheet numbering sequence (if you are using forms) and direction you are walking or driving the segment should always be entered. Also, any comments you feel necessary. The comments should include any abnormal conditions you may encounter or any questions you may have. Please call your supervisor if you are uncomfortable with or unsure of anything you see. Also, be sure to check all street names and from/to information with the street signs and what you observe while in the field. Change any existing names or termini data that do not agree with what you see.

31. Intersection Information/Identification

If separate intersection data is being collected, the from and to intersection ID’s will be placed in the “Ramped Curb” fields and additional forms for collecting intersection data will be placed on the back of the current form or on a separate layer when using the pocket PC. This allows you to collect such data as for all the curb ramps within a given intersection. This would also apply to such data as signal lights & controls, turning lanes etc.

32. Bridge Data

Bridges may be included in the database segmentation as separate segments and will generally be flagged or exempt, so as not to be included in the pavement analysis. If a bridge is encountered that is not in the database it should be added as a new segment and appropriately documented as a bridge. The length, width, surface type and surface condition should be recorded. If the bridge surface has been paved with the roadway surface, the rater will always rate it with the rest of the segment (or separately if it is a separate segment). The way bridges are handled will vary from one agency to the next. Be sure to check with your supervisor as to how you should handle bridges for each separate agency

ATTACHMENT "A"

EXHIBIT B

PAYMENT (NEGOTIATED HOURLY RATE)

The CONSULTANT shall be paid by the CITY for completed work and services rendered under this AGREEMENT as provided hereinafter. Such payment shall be full compensation for work performed or services rendered and for all labor, materials, supplies, equipment, and incidentals necessary to complete the work. The CONSULTANT shall conform with all applicable portions of 48 CFR Part 31.

1. Hourly Rates

The CONSULTANT shall be paid by the CITY for work done, based upon the negotiated hourly rates shown in Exhibit "C" attached hereto and by this reference made part of the AGREEMENT. The rates listed shall be applicable for the first 12-month period and shall be subject to negotiation for the following 12-month period upon request of the CONSULTANT or the CITY. If negotiations are not conducted for the second or subsequent 12-month periods within 90 days after completion of the previous period, the rates listed in this AGREEMENT, or subsequent written authorization(s) from the CITY shall be utilized. The rates are inclusive of direct salaries, payroll additives, overhead, and fee. The CONSULTANT shall maintain support data to verify the hours billed on the AGREEMENT.

2. Direct Non-Salary Costs

Direct Non-Salary costs will be reimbursed at the actual cost to the CONSULTANT. These charges may include, but are not limited to the following items: travel, printing, long distance telephone, supplies, computer charges, and fees of subconsultants. Air or train travel will only be reimbursed to economy class levels unless otherwise approved by the CITY. The CONSULTANT shall comply with the rules and regulations regarding travel costs (excluding air, train, and rental car costs) in accordance with the CITY's Travel Rules and Procedures. However, air, train, and rental car costs shall be reimbursed in accordance with the 48 CFR Part 31.205-46 "Travel Costs". The billing for direct non-salary costs shall include an itemized listing of the charges directly identifiable with the PROJECT. The CONSULTANT shall maintain the original supporting documents in their office. Copies of the original supporting documents shall be supplied to the CITY upon request. All above charges must be necessary for the services provided under this AGREEMENT.

3. Contingencies

If the CITY desires the CONSULTANT to perform additional work beyond that already defined in the AGREEMENT, the Agreement Administrator may authorize additional funds for this purpose. Such authorization(s) shall be in writing and shall not exceed the amount shown in Exhibit "C". Any changes requiring additional costs in excess of the contingencies shall be made in accordance with Section XIV, "Extra Work".

4. Maximum Amount Payable

The maximum amount payable by the CITY to the CONSULTANT under this AGREEMENT shall not exceed the amount shown in the heading of this AGREEMENT. The maximum amount payable is comprised of the total amount authorized and the contingencies. The maximum amount payable does not include payment for extra work as stipulated in Section XIV, "Extra Work". No minimum amount payable is guaranteed under this AGREEMENT.

5. Monthly Progress Payments

Progress payments may be claimed on a monthly basis for all costs authorized in 1 and 2 above. The monthly invoices shall be supported by detailed statements for hours expended at the rates established in Exhibit "C", including names and classifications of all employees, and invoices for all direct nonsalary expenses. To provide a means of verifying the invoiced salary costs for the consultant's employees, the agency may conduct employee interviews. These interviews may consist of recording the names, titles, salary rates, and present duties of those employees performing work on the project at the time of the interview.

6. Final Payment

Final payment of any balance due the CONSULTANT of the gross amount earned will be made promptly upon its verification by the CITY after the completion of the work under this AGREEMENT, contingent upon receipt of all PS&E, plans, maps, notes, reports, electronic data and other related documents which are required to be furnished under this AGREEMENT. Acceptance of such final payment by the CONSULTANT shall constitute a release of all claims for payment which the CONSULTANT may have against the CITY unless such claims are specifically reserved in writing and transmitted to the CITY by the CONSULTANT prior to its acceptance. Said final payment shall not, however, be a bar to any claims that the CITY may have against the CONSULTANT or to any remedies the CITY may pursue with respect to such claims.

The payment of any billing will not constitute agreements as to the appropriateness of any item and at the time of final audit, all required adjustments will be made and reflected in a final payment. In the event that such final audit reveals an overpayment to the CONSULTANT, the CONSULTANT will refund such overpayment to the CITY within thirty (30) days of notice of the overpayment. Such refund shall not constitute a waiver by the CONSULTANT or any claims relating to the validity of a finding by the CITY of overpayment.

7. Inspection of Cost Records

The CONSULTANT and their subconsultants shall keep available for inspection by representatives of the CITY, for a period of three (3) years after final payment, the cost records and accounts pertaining to this AGREEMENT and all items related to or bearing upon these records with the following exception: if any litigation, claim, or audit arising out of, in connection with, or related to this contract is initiated before the expiration of the three (3) year period, the cost records and accounts shall be retained until such litigation, claim, or audit involving the records is completed.

ATTACHMENT "A"

EXHIBIT C

TITLE VI ASSURANCES

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees and successors in interest agrees as follows:

1. **COMPLIANCE WITH REGULATIONS:** The CONSULTANT shall comply with the Regulations relative to non-discrimination in the same manner as in federally assisted programs of the CITY, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of the AGREEMENT.
2. **NON-DISCRIMINATION:** The CONSULTANT, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of subconsultants, including procurement of materials and leases of equipment. The CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the AGREEMENT covers a program set forth in Appendix B of the Regulations.
3. **SOLICITATIONS FOR SUBCONSULTANTS, INCLUDING PROCUREMENTS OF MATERIALS AND EQUIPMENT:** In all solicitations either by competitive bidding or negotiation made by the CONSULTANT for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subconsultant or supplier shall be notified by the CONSULTANT of the CONSULTANT's obligations under this AGREEMENT and the Regulations relative to non-discrimination on the grounds of race, color, sex, or national origin.
4. **INFORMATION AND REPORTS:** The CONSULTANT shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the CITY to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the CITY, and shall set forth what efforts it has made to obtain the information.
5. **SANCTIONS FOR NON-COMPLIANCE:** In the event of the CONSULTANT's non-compliance with the non-discrimination provisions of this AGREEMENT, the CITY shall impose such sanctions as it may determine to be appropriate, including, but not limited to:
 - Withholding of payments to the CONSULTANT under the AGREEMENT until the CONSULTANT complies, and/or;
 - Cancellation, termination or suspension of the AGREEMENT, in whole or in part.
6. **INCORPORATION OF PROVISIONS:** The CONSULTANT shall include the provisions of paragraphs (1) through (5) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The CONSULTANT shall take such action with respect to any subconsultant or procurement as the CITY may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that, in the event a CONSULTANT becomes involved in, or is threatened with, litigation with a subconsultant or supplier as a result of such direction, the CONSULTANT may request the CITY to enter into such litigation to protect the interests of the CITY.