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16

PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

PROJECT 131403
FY2014 PAVEMENT MANAGEMENT PROGRAM, SLURRY SEAL
JULY 2014



CITY OF GLENDALE
ENGINEERING DEPARTMENT
5850 W. Glendale Avenue, Glendale, Arizona 85301 (623) 930-3630

PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

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Ian Hugh
Yvonne J. Knaack
Manuel D. Martinez
Gary D. Sherwood

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CITY ATTORNEY
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Pamela Hanna

CITY ENGINEER
David D. Beard





Engineering Department

Memorandum

DATE: July 25, 2014
TO: All Plan and Specification Holders
FROM: Engineering
SUBJECT: PROJECT NO. 131403 – FY2014 Pavement Management Program, Slurry Seal

ADDENDUM NO. 1



In accordance with the contract documents "Information for Bidders," Page 4, Paragraph 12 CHANGES TO PLANS AND DOCUMENTS, the following revisions to the plans and specifications shall become a part of the contract documents and the bidder shall acknowledge receipt thereof as directed in Paragraph 13 of the Information for Bidders.

Please see the following clarifications/revisions:

Change to the Bid Schedule, Page 8

The Description of Bid Item No. 6 has been change to **Slurry Seal (Type II)**

The Description of Bid Item No. 7 has been changed to **Micro Seal (Type III)**

The following Bid Items have been added to the Bid Schedule:

- Bid Item 24, Temporary Pavement Markings Arrows, Quantity: 27 EA
- Bid Item 25, Temporary Pavement Markings Railroad RxR, Quantity: 2 EA
- Bid Item 26, Temporary Pavement Markings Speed Tables, Quantity: 11 EA
- Bid Item 27, Temporary White Stripe Paint 4" Equivalent, Quantity: 51,585 LF
- Bid Item 28 Temporary Yellow Stripe Paint 4" Equivalent, Quantity: 31,450 LF
- Bid Item 29, Raised Pavement Marker (Type D Yellow 2 way), Quantity 46 EA
- Bid Item 30, Raised Pavement Marker (Type G Clear 1 way), Quantity 36 EA
- Bid Item 31, Raised Pavement Marker, Fire Hydrant (Type 911A Blue 2 way), Quantity 25 EA

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CASH FLOW REPORT (SAMPLE)

TECHNICAL SPECIFICATIONS

NOTICE TO CONTRACTORS

Sealed bids shall be either mailed to the City of Glendale Engineering Department, 5850 West Glendale Avenue, Glendale, Arizona, 85301, or hand-delivered to the Engineering Department office, third floor, 5850 West Glendale Avenue, Glendale, Arizona, for furnishing all plant, material, equipment and labor, and to complete construction of: **PROJECT NO. 131403 FY2014 PAVEMENT MANAGEMENT PROGRAM, SLURRY SEAL**. Project includes approximately 6 miles of slurry seal, 650,000 linear feet of crack seal, approximately 2 miles of micro-seal, and approximately 1,600 square yards of asphalt repairs.

Bids must be received by the Engineering Department of the City of Glendale no later than 10:00AM, JULY 29, 2014. Any bid received after that time will not be considered and will be returned to the bidder. At that time, the bids will be publicly opened and read aloud in the Engineering Department Conference Room, 5850 West Glendale Avenue, Glendale, Arizona.

A pre-bid conference will be held on JULY 22, 2014, at 10:00AM, in the Engineering Department Conference Room, 5850 West Glendale Avenue, Glendale, Arizona. Bidders, contractors, and other interested parties are invited to attend this conference which will be conducted by the Owner and Engineer to answer any questions.

Plans, specifications and contract documents may be examined, and copies may be obtained at City of Glendale Engineering Department, 5850 West Glendale Avenue, Glendale, Arizona. A non-refundable charge of \$25.00 shall be paid for each set of plans and specifications issued from this office.

Each bid shall be in accordance with the plans, specifications and contract documents, and shall be set forth and submitted on the BID DOCUMENTS included with the project specifications book. The BID DOCUMENTS may be removed from the project specifications book and submitted independently of such book. Each bid shall be accompanied by a proposal guarantee, in the form of a certified or cashier's check or bid bond for ten percent (10%) of the amount of bid, made payable to the order of the City of Glendale, Arizona, to insure that the successful bidder will enter into the contract if awarded to him and submit the required Certificate of Insurance, Payment Bond and Performance Bond. All proposal guarantees, except those of the three lowest qualified bidders, will be returned immediately following the opening and checking of proposals. The proposal guarantees of the three lowest qualified bidders will be returned immediately after the contract documents have been executed by the successful bidder. The proposal guarantee shall be declared forfeited as liquidated damages if the successful bidder refuses to enter into said contract or submit the Certificate of Insurance, Payment Bond and Performance Bond after being requested to do so by the City of Glendale, Arizona.

The City of Glendale reserves the right to reject any or all bids or waive any informality or irregularity in a bid. No bidder may withdraw his bid for a period of seventy (70) days after opening and reading of the bids.

The City of Glendale is an equal opportunity employer and minority business enterprises and women's business enterprises are encouraged to submit bids.

CITY OF GLENDALE, ARIZONA

INFORMATION FOR BIDDERS

1. **ELIGIBILITY OF CONTRACTORS:** When calling for bids for contracts for public work to be performed on behalf of the State or any political subdivision thereof, which will be paid for from public funds, no bid shall be considered for performance of a contract, including construction work which is not submitted by a bidder duly licensed as a contractor in this State. No bid shall be awarded to any contractor or entity not authorized to do business in the State of Arizona by the Arizona Corporation Commission, as required by statute.

2. **PROPOSAL:** Bids to receive consideration shall be made in accordance with the following instructions:

(a) Before submitting a bid, bidders shall carefully examine the plans and specifications and contract documents, visit the site of the work, fully inform themselves as to all existing conditions and limitations.

(b) Bids shall be submitted on the "PROPOSAL" forms provided and delivered to the City of Glendale Engineering Department on or before the day and hour set in the "NOTICE TO CONTRACTORS," as published. Bids shall be enclosed in a sealed envelope marked on the outside lower right-hand corner indicating:

1. The bidder's name and address.
2. The project number.
3. The title of the project.
4. The time and date the bids are to be received.

(c) It is the sole responsibility of the bidder to see that his bid is received in proper time. Any bids received after the scheduled closing time for receipt of bids will be returned to the bidder unopened.

(d) The signatures of all persons shall be in longhand. Any interlineations, alterations, or erasures must be initialed by the signer of the bid.

(e) Bids shall not contain any recapitulations of the work to be done. No oral, telegraphic, telephonic, or modified proposals will be considered.

3. **BID SECURITY:** Each proposal shall be accompanied by a proposal guarantee in the form of a certified or cashier's check or bid bond, with a properly executed Power of Attorney attached, in an amount equal at least to ten percent (10%) of the proposal payable without condition to the City. If a bid bond is submitted with the bid it shall be issued by a company licensed with the Arizona Department of Insurance and authorized to issue such bonds in this state. **NO BONDS ISSUED BY INDIVIDUAL SURETIES WILL BE ACCEPTED. The company issuing the bid bond shall have a rating of not less than A- in the BEST rating available at the time this project was let to bid.** The proposal guarantee shall guarantee that the bidder, if awarded the contract, will, within ten (10) working days after the award, execute such contract in accordance with the proposal and in manner and form required by the contract documents, and will furnish good and sufficient bond for the faithful performance of the same, a payment bond and a certificate of insurance. The bid securities of the three (3) lowest bidders will be retained until the contract is awarded, or other disposition made thereof. The bid securities of all bidders, except the three (3) lowest, will be returned promptly after the canvass of bids. In the event the Contractor fails, within ten (10)

working days after the award, to execute said Contract and deliver the Performance and Labor and Material Payment Bonds and the Certificate of Insurance, the Bid Security shall become the property of the City.

4. **WITHDRAWAL OF BID:** Any bidder may withdraw his bid, either personally, by telegram or by written request, at any time prior to the scheduled closing time for receipt of bids. No bid may be withdrawn by telephone. Any bid withdrawn will not be opened and will be returned to the bidder. After opening and reading of the bids, no bidder may withdraw his bid for a period of fifty (50) days from the date of opening and reading.

5. **LATE BIDS:** Bids received after the scheduled closing time for receipt of bids, as contained in the "Notice to Contractors," will not be considered and will be returned to the bidder.

6. **AWARD OR REJECTION OF BIDS:** The contract will be awarded to the lowest and best qualified responsive bidder complying with these instructions and with the "NOTICE TO CONTRACTORS." The City of Glendale, Arizona, however, reserves the right to accept or reject any or all bids or to waive any or all informalities or irregularities in the bid. Alternates may be accepted depending upon the availability of City funds. Accepted alternates will be considered in determining the lowest responsive and responsible bidder.

7. **BIDDERS INTERESTED IN MORE THAN ONE BID:** No person, firm or corporation shall be allowed to make, file, or be interested in more than one (1) bid for the same work unless alternate bids are called for in the specifications or any addenda. A person, firm, or corporation who has submitted a sub-proposal to a bidder, or who has quoted prices on materials to a bidder is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders.

8. **CONTRACT AND BONDS:** The form of contract, which the successful bidder as Contractor will be required to execute and the forms of bonds which he shall be required to furnish are included in the contract documents and should be carefully examined by the bidder. The successful bidder shall use the forms provided or such other forms as are acceptable by the City. The Contract and Performance and Labor and Material Payment Bonds will be executed in three (3) original counterparts. All bonds shall be issued by companies licensed with the Arizona Department of Insurance and authorized to issue such bonds in this state. **NO BONDS ISSUED BY INDIVIDUAL SURETIES WILL BE ACCEPTED.** The company issuing any bond shall have a rating of not less than A- in the BEST rating available at the time this project was let to bid.

9. **INSURANCE REQUIREMENTS:** Contractor, and each Sub-contractor performing work or providing materials related to this Agreement must procure and maintain the insurance coverages described (collectively, "Contractor's Policies"), until each Parties' obligations under this Agreement are completed. Contractor must at all times relevant hereto carry a commercial general liability policy with a combined single limit of at least \$1,000,000 per occurrence and \$2,000,000 annual aggregate. **Contracts in excess of \$250,000 shall require \$2,000,000 single occurrence/\$5,000,000 annual aggregate.**

Sub-contractors must at all times relevant hereto carry a general commercial liability policy with a combined single limit of at least \$1,000,000 per occurrence.

This commercial general liability insurance must include independent contractors' liability, contractual liability, broad form property coverage, products and completed operations, XCU hazards if requested by the City, and a separation of insurance provision.

These limits may be met through a combination of primary and excess liability coverage.

Auto. A business auto policy providing a liability limit of at least \$1,000,000 per accident for Contractor and \$1,000,000 per accident for Sub-contractors and covering owned, non-owned and hired automobiles.

Workers' Compensation and Employer's Liability. A workers' compensation and employer's liability policy providing at least the minimum benefits required by Arizona law.

Equipment Insurance. Contractor must secure, pay for, and maintain all-risk insurance as necessary to protect the City against loss of owned, non-owned, rented or leased capital equipment and tools, equipment and scaffolding, staging, towers and forms owned or rented by Contractor or its Sub-contractors.

10. SUBCONTRACTORS LISTING AND CERTIFICATION OF CONTRACT COMPLIANCE: The contractor will be required to furnish the form of subcontractors listing and certification of contract compliance with the executed contract documents. This information is requested for tracking and insurance purposes only.

11. INTERPRETATION OF PLANS AND DOCUMENTS: If any person contemplating a bid for proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other proposed contract documents, or finds discrepancies in or omissions from the plans and specifications, he may submit to the Engineering Department, a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Questions received less than ninety-six (96) hours before the bid opening time may not be answered. Any interpretation or correction of the documents will be made only by Addendum, duly issued and a copy of such Addendum will be mailed or delivered to each person receiving a set of such documents. The City of Glendale will not be responsible for any other explanations or interpretations of the proposed documents.

12. CHANGES TO PLANS AND DOCUMENTS: Any changes to the plans and documents shall be made only by Addendum. No verbal or other changes to the plans and documents will be valid. A copy of each Addendum will be mailed or delivered as provided in Section 13 below.

13. ADDENDUM: Any addenda will be faxed, mailed or delivered to all who are known by the City to have received a complete set of bid documents, and to offices where bid documents have been filed for review purposes. It is the responsibility of each bidder to ascertain that he has received all addenda issued by telephoning the office identified in the NOTICE TO CONTRACTORS as the location where bid documents are available prior to submitting his bid.

Bidders shall acknowledge all addenda in the appropriate location on the "PROPOSAL" form. Failure to acknowledge receipt of Addenda shall render the bid proposal non-responsive and it will be rejected.

14. ASSIGNMENT OF CONTRACT: No assignment by the Contractor of any contract to be entered into hereunder, or any part thereof, or of funds to be received thereunder by the Contractor,

will be recognized by the Owner by the Owner unless such assignment has had prior approval of the Owner, and the Surety has been given due notice of such assignment in writing and has consented thereto in writing.

15. PLANS AND SPECIFICATIONS TO SUCCESSFUL BIDDER: The successful bidder may obtain five (5) sets of plans and specifications for this project from the City.

16. TIME OF COMPLETION: The Contractor shall commence work under this project on or before the tenth day following receipt of the Notice to Proceed for that project from the City of Glendale and shall fully complete all work under the project within SEVENTY (70) consecutive calendar days from and including the date of receipt of such Notice to Proceed. Time is of the essence in the completion of all work required under this contract. The Contractor shall, at all times, during the continuance of the contract, prosecute the work with such force and equipment as is sufficient to complete all work within the time specified.

17. CITY OF GLENDALE TRANSACTION PRIVILEGE TAX: The City of Glendale transaction privilege tax shall **NOT** be waived under the provisions of this contract. The current privilege tax rate can be obtained from the City of Glendale Sales Tax and Licenses Department. The Contractor shall be responsible for reporting and payment of all city, county, state or federal taxes.

18. PRE-BID CONFERENCE: A pre-bid conference will be held on JULY 22, 2014, at 10:00AM, in the Engineering Department Conference Room, 5850 West Glendale Avenue, Glendale, Arizona. Bidders, contractors, and other interested parties are invited to attend this conference which will be conducted by the Owner and Engineer to answer any questions.

19. ALTERNATES: Alternate proposals will not be considered unless called for in the documents or any addenda thereto. When alternates are requested, all requested alternates or alternate bid items, unless otherwise stated, shall be bid. If no change in the base bid will occur with the alternate, enter "No Change."

20. APPROVAL OF SUBSTITUTIONS: The materials, products and equipment described in the Documents and Addenda establish a standard or required function, dimension, appearance and quality to be met by any proposed substitution. No substitute will be considered, before bid opening, unless written request for approval has been received by the City Engineer at least ten (10) working days prior to the scheduled closing time for receipt of bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including any drawings, cuts, performance and test data and any other information necessary for evaluation of the substitute. Bidder shall not be entitled to approval of a substitute.

If a substitute is approved, the approval shall be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

21. USE OF "EQUALS": When the specifications for materials, articles, products and equipment state "or equal," contractor may bid upon, and use materials, articles, products and equipment which will perform equally the duties imposed by the general design. The City Engineering Department will have the final approval of all materials, articles, products and equipment proposed to be used as an "equal." It shall not be purchased or installed without the prior written approval from the City Engineering Department.

Approvals for "equals," before bid opening, may be requested in writing to the City Engineering Department for approval. Requests must be received at least ten (10) days prior to the date set for opening the Bid Proposals. The request shall state the name of the material, article, product or equipment for which the item is sought to be considered an equal and a complete description of the proposed equal including any drawings, cuts, performance and test data and any other information necessary for approval of the equal. All approvals will be issued in the form of an addendum.

22. EXAMINATION OF CONTRACT DOCUMENTS AND VISIT SITE: Before submitting a Bid Proposal, bidders should carefully examine the Contract Documents, visit the site of the work, fully inform themselves as to all existing conditions and limitations. No consideration will be granted for any alleged misunderstanding of the material, articles or piece of equipment to be furnished or work to be done. It is understood that the tender of the Bid Proposal carries with it the agreement to all items and conditions referred to herein or indicated in the Contract Documents.

23. BIDDERS IN DEFAULT: No bid will be awarded to any person, firm or corporation that is not authorized by the Arizona Corporation Commission to do business in the State of Arizona, in arrears or is in default to the City of Glendale upon any debt or contract, or that is a defaulter as surety or otherwise upon any obligation to the City of Glendale, or has failed to faithfully perform any previous contract with the City of Glendale.

END OF INFORMATION FOR BIDDERS

PROPOSAL

Place City Of Glendale

Date July 29th, 2014

Proposal of Viasun, a Corporation organized and existing under the laws of the State of Arizona. a partnership consisting of N/A; or an individual trading as N/A.

TO THE HONORABLE MAYOR AND COUNCIL
CITY OF GLENDALE
GLENDALE, ARIZONA

Gentlemen:

The undersigned hereby proposes and agrees to furnish any and all required labor, materials, construction equipment, transportation and services for the construction of: **PROJECT 131403 - FY2014 PAVEMENT MANAGEMENT PROGRAM, SLURRY SEAL**, in strict conformity with the plans and specifications for the following unit prices:

(Extension of these unit prices on the basis of estimated quantities and the totaling of these extensions are for the purpose of comparing bids only. The mathematics of such extensions and totaling will be checked and corrected by the Engineering Department, before evaluating the bids, and the lowest of such corrected and checked totals will determine the lowest bids.)

BID SCHEDULE					
PROJECT 131403-FY2014 PAVEMENT MANAGEMENT PROGRAM, SLURRY SEAL					
BID ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL BID
1	Mobilization/Demobilization	1	LS		
2	Project Signs	1	LS		
3	Construction Material Sampling & Testing	1	LS		
4	Asphalt Repair (Remove & Replace), 12.5 mm- Match Exist Depth	1,228	SY		
5	Crack Seal	626,075	LF		
6	Slurry Seal (Type II)	141,716	SY		
7	Micro Seal (Type III)	39,240	SY		
8	Remove & Dispose of Concrete Sidewalk	528	SF		
9	Remove and Dispose of 2' Concrete Curb & Gutter	104	LF		
10	Remove and Dispose of Concrete Valley Gutter	100	SF		
11	6' Concrete Sidewalk, MAG Std. Dtl. 230	528	SF		
12	Concrete Curb & Gutter, MAG Std. Dtl. 220-1(Type A)	179	LF		
13	Concrete Valley Gutter, MAG Std. Dtl. 240	174	SF		
14	Obliterate Existing Pavement Markings	1	LS		
15	Preformed Pavement Markings Arrows	27	EA		
16	Preformed Pavement Markings Railroad RxR	2	EA		
17	Preformed Pavement Markings Speed Tables	11	EA		
18	White Stripe 60Mil Thermo Plastic 4" Equivalent	38520	LF		
19	White Stripe 90 Mil Thermo Plastic 4" Equivalent	13065	LF		
20	Yellow Stripe 60Mil Thermo Plastic 4" Equivalent	31450	LF		
21	Traffic Control	1	LS		
22	Uniformed, Off-Duty Law Enforcement Officer	100	HR		
23	Allowance for Construction Contingencies	1	LS	\$80,000.00	\$80,000.00
24	Temporary Pavement Markings Arrows	27	EA		
25	Temporary Pavement Markings Railroad RxR	2	EA		
26	Temporary Pavement Markings Speed Tables	11	EA		
27	Temporary White Stripe Paint 4" Equivalent	51,585	LF		

28	Temporary Yellow Stripe Paint 4" Equivalent	31,450	LF		
29	Raised Pavement Marker (Type D Yellow 2 way)	46	EA		
30	Raised Pavement Marker (Type G Clear 1 way)	36	EA		
31	Raised Pavement Marker, Fire Hydrant (Type 911A Blue 2 way)	25	EA		
Total Bid:					

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BID SCHEDULE					
PROJECT 131403-FY2014 PAVEMENT MANAGEMENT PROGRAM, SLURRY SEAL					
BID ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL BID
1	Mobilization/Demobilization	1	LS	5000	\$5,000 00
2	Project Signs	1	LS	450	\$450 00
3	Construction Material Sampling & Testing	1	LS	7500	\$7,500.00
4	Asphalt Repair (Remove & Replace), 12.5 mm- Match Exist Depth	1,228	SY	45	\$55,260 00
5	Crack Seal	626,075	LF	20	\$125,215 00
6	Slurry Seal (Type II)	141,716	SY	1 49	\$211,156 84
7	Micro Seal (Type III)	39,240	SY	1 95	\$76,518 00
8	Remove & Dispose of Concrete Sidewalk	528	SF	2	\$1,056 00
9	Remove and Dispose of 2' Concrete Curb & Gutter	104	LF	6	\$624 00
10	Remove and Dispose of Concrete Valley Gutter	100	SF	3	\$300 00
11	6' Concrete Sidewalk, MAG Std. Dtl. 230	528	SF	4	\$2,112 00
12	Concrete Curb & Gutter, MAG Std. Dtl. 220-1(Type A)	179	LF	16	\$2,864 00
13	Concrete Valley Gutter, MAG Std. Dtl. 240	174	SF	6	\$1,044 00
14	Obliterate Existing Pavement Markings	1	LS	10000	\$10,000 00
15	Preformed Pavement Markings Arrows	27	EA	125	\$3,375 00
16	Preformed Pavement Markings Railroad RxR	2	EA	200	\$400 00
17	Preformed Pavement Markings Speed Tables	11	EA	480	\$5,280 00
18	White Stripe 60Mil Thermo Plastic 4" Equivalent	38520	LF	28	\$8,859 60
19	White Stripe 90 Mil Thermo Plastic 4" Equivalent	13065	LF	59	\$7,708 35
20	Yellow Stripe 60Mil Thermo Plastic 4" Equivalent	31450	LF	28	\$8,806 00
21	Traffic Control	1	LS	25000	\$25,000 00
22	Uniformed, Off-Duty Law Enforcement Officer	100	HR	50	\$5,000 00
23	Allowance for Construction Contingencies	1	LS	\$80,000.00	\$80,000.00
24	Temporary Pavement Markings Arrows	27	EA	45	\$1,215 00
25	Temporary Pavement Markings Railroad RxR	2	EA	110	\$220 00
26	Temporary Pavement Markings Speed Tables	11	EA	120	\$1,320 00
27	Temporary White Stripe Paint 4" Equivalent	51,585	LF	11	\$5,674 35

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28	Temporary Yellow Stripe Paint 4" Equivalent	31,450	LF	11	\$3,459 50
29	Raised Pavement Marker (Type D Yellow 2 way)	46	EA	3	\$188 00
30	Raised Pavement Marker (Type G Clear 1 way)	36	EA	3	\$108 00
31	Raised Pavement Marker, Fire Hydrant (Type 911A Blue 2 way)	25	EA	5	\$125 00
Total Bid:					\$655,838 64

The undersigned hereby declares that he has visited the site(s) and has carefully examined the contract documents relating to the work covered by the above bid or bids.

Upon receipt of notice of the acceptance of this bid, we will execute the formal contract attached within ten (10) days, and will deliver a one hundred percent (100%) Performance Bond for the faithful performance of this Contract, together with a one hundred percent (100%) Payment Bond and Certificate of Insurance.

The bid security attached, with endorsement, in the sum of ten percent (10%) of the total bid, is to become the property of the City of Glendale, Arizona, in the event the Contract and Bonds are not executed within the time set forth, as liquidated damages for the delay and additional work caused thereby.

The undersigned has checked carefully all the above figures and understands that the City of Glendale, Arizona, will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

The undersigned understands that the Mayor and Council of the City of Glendale, Arizona, reserves the right to reject any or all bids or to waive any informalities or irregularities in the bid.

Respectfully submitted,

Arizona Contractor's
Classification and
License No.

AZROC# 278361

Viasun Corporation

Contractor

By Rolando Perez President

731 North 19th Avenue

Phoenix Arizona, 85009

(Complete business address)

Telephone Number: 480 268 9669

Fax Number 480 223 6295

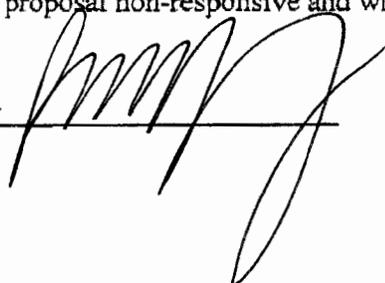
Bidder shall signify receipt of all Addenda here (if any).

Addendum No 1- Change to the Bid Schedule, Page 8 (Bid Item No 6 Changed to Slurry Seal Type II)

(Bid Item No 7 Changed to Micro Seal Type III-Special Conditions added to Page-32)

Failure to acknowledge receipt of all Addenda shall render the bid proposal non-responsive and will be rejected.

Acknowledged by Rolando Perez-



CONSTRUCTION AGREEMENT

This Construction Agreement ("Agreement") is entered into and effective between the CITY OF GLENDALE, an Arizona municipal corporation ("City"), and Viasun Corporation, an Arizona corporation ("Contractor") as of the 23 day of September, 2014

RECITALS

- A. City intends to undertake a project for the benefit of the public and with public funds that is more fully set forth in the **Notice to Contractors** and the attached **Exhibit A** ("Project");
- B. City desires to retain the services of Contractor to perform those specific duties and produce the specific work as set forth in the Project, the plans and specifications, the **Information for Bidders**, and the **Maricopa Association of Governments ("MAG") General and Supplemental Conditions and Provisions**,
- C. City and Contractor desire to memorialize their agreement with this document

AGREEMENT

In consideration of the Recitals, which are confirmed as true and correct and incorporated by this reference, the mutual promises and covenants contained in this Agreement, and other good and valuable consideration, City and Contractor agree as follows

1. Project.

1.1 Scope. Contractor will provide all services and material necessary to assure the Project is completed timely and efficiently consistent with Project requirements, including, but not limited to, working in close interaction and interfacing with City and its designated employees, and working closely with others, including other contractors, providers or consultants retained by City

1.2 Documents. The following documents are, by this reference, entirely incorporated into this Agreement and attached Exhibits as though fully set forth herein.

- (A) Notice to Contractors,
- (B) Information for Bidders;
- (C) MAG General Conditions, Supplemental General Conditions, Special and Technical Provisions;
- (D) Proposal;
- (E) Bid Bond;
- (F) Payment Bond;
- (G) Performance Bond,
- (H) Certificate of Insurance;
- (I) Appendix; and
- (J) Plans and Addenda thereto.

Should a conflict exist between this Agreement (and its attachments), and any of the incorporated documents as listed above, the provisions of this Agreement shall govern

1.3 Project Team.

(A) Project Manager. Contractor will designate an employee as Project Manager with sufficient training, knowledge, and experience to, in the City's opinion, to complete the project and handle all aspects of the Project such that the work produced by Contractor is consistent with applicable standards as detailed in this Agreement.

(B) Project Team.

- (1) The Project manager and all other employees assigned to the project by Contractor will comprise the "Project Team "
- (2) Project Manager will have responsibility for and will supervise all other employees assigned to the project by Contractor.

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(C) Sub-contractors.

- (1) Contractor may engage specific technical contractor (each a "Sub-contractor") to furnish certain service functions.
- (2) Contractor will remain fully responsible for Sub-contractor's services
- (3) Sub-contractors must be approved by the City, unless the Sub-contractor was previously mentioned in the response to the solicitation
- (4) Contractor shall certify by letter that contracts with Sub-contractors have been executed incorporating requirements and standards as set forth in this Agreement.

2. **Schedule and Term.** The Project will be undertaken in a manner that ensures it is completed in a timely and efficient manner. As provided in Exhibit A, the Project shall be completed by no later than within seventy (70) consecutive calendar days from the effective date of this agreement. This agreement shall terminate on the one-year anniversary of its effective date and shall not be extended or renewed, unless such term is amended in a written agreement signed by both parties.

3. **Contractor's Work.**

3.1 **Standard.** Contractor must perform services in accordance with the standards of due diligence, care, and quality prevailing among contractors having substantial experience with the successful furnishing of services and materials for projects that are equivalent in size, scope, quality, and other criteria under the Project and identified in this Agreement.

3.2 **Licensing.** Contractor warrants that

- (A) Contractor and Sub-contractors will hold all appropriate and required licenses, registrations and other approvals necessary for the lawful furnishing of services ("Approvals"), and
- (B) Neither Contractor nor any Sub-contractor has been debarred or otherwise legally excluded from contracting with any federal, state, or local governmental entity ("Debarment").
 - (1) City is under no obligation to ascertain or confirm the existence or issuance of any Approvals or Debarments or to examine Contractor's contracting ability.
 - (2) Contractor must notify City immediately if any Approvals or Debarment changes during the Agreement's duration and the failure of the Contractor to notify City as required will constitute a material default of this Agreement

3.3 **Compliance.** Services and materials will be furnished in compliance with applicable federal, state, county and local statutes, rules, regulations, ordinances, building codes, life safety codes, or other standards and criteria designated by City.

3.4 **Coordination; Interaction.**

- (A) If the City determines that the Project requires the coordination of professional services or other providers, Contractor will work in close consultation with City to proactively interact with any other contractors retained by City on the Project ("Coordinating Entities").
- (B) Subject to any limitations expressly stated in the budget, Contractor will meet to review the Project, schedules, budget, and in-progress work with Coordinating Entities and the City as often and for durations as City reasonably considers necessary in order to ensure the timely work delivery and Project completion.
- (C) If the Project does not involve Coordinating Entities, Contractor will proactively interact with any other contractors when directed by City to obtain or disseminate timely information for the proper execution of the Project

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- 3.5 **Hazardous Substances.** Contractor is responsible for the appropriate handling, disposal of, and if necessary, any remediation and all losses and damages to the City, associated with the use or release of hazardous substances by Contractor in connection with completion of the Project
- 3.6 **Warranties.** At any time within two years after completion of the Project, Contractor must, at Contractor's sole expense and within 20 days of written notice from the City, uncover, correct and remedy all defects in Contractor's work. City will accept a manufacturer's warranty on approved equipment as satisfaction of the Contractor's warranty under this subsection
- 3.7. **Bonds.** Upon execution of this Agreement, and if applicable, Contractor must furnish Payment and Performance bonds as required under A R S § 34-608

4. Compensation for the Project.

- 4.1 **Compensation.** Contractor's compensation for the Project, including those furnished by its Sub-contractors will not exceed \$657,714 64, as specifically detailed in the Contractor's bid and set forth in **Exhibit B** ("Compensation")
- 4.2 **Change in Scope of Project.** The Compensation may be equitably adjusted if the originally contemplated scope of services as outlined in the Project is significantly modified by the City.
- (A) Adjustments to the Scope or Compensation require a written amendment to this Agreement and may require City Council approval.
- (B) Additional services which are outside the scope of the Project and not contained in this Agreement may not be performed by the Contractor without prior written authorization from the City

5. Billings and Payment.

5.1 Applications.

- (A) The Contractor will submit monthly invoices (each, a "Payment Application") to City's Project Manager and City will remit payments based upon the Payment Application as stated below.
- (B) The period covered by each Payment Application will be one calendar month ending on the last day of the month.

5.2 Payment.

- (A) After a full and complete Payment Application is received, City will process and remit payment within 30 days
- (B) Payment may be subject to or conditioned upon City's receipt of
- (1) Completed work generated by Contractor and its Sub-contractors, and
- (2) Unconditional waivers and releases on final payment from Sub-contractors as City may reasonably request to assure the Project will be free of claims arising from required performances under this Agreement.

5.3 Review and Withholding.

City's Project Manager will timely review and certify Payment Applications

- (A) If the Payment Application is rejected, the Project Manager will issue a written listing of the items not approved for payment.
- (B) City may withhold an amount sufficient to pay expenses that City reasonably expects to incur in correcting the deficiency or deficiencies rejected for payment
- (C) Contractor will provide, by separate cover, and concurrent with the execution of this Agreement, all required financial information to the City, including City of Glendale Transaction Privilege License and Federal Taxpayer identification numbers

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- (D) City will temporarily withhold Compensation amounts as required by A.R.S 34-221(C).

6. Termination.

6.1 For Convenience. City may terminate this Agreement for convenience, without cause, by delivering a written termination notice stating the effective termination date, which may not be less than 15 days following the date of delivery

- (A) Contractor will be equitably compensated any services and materials furnished prior to receipt of the termination notice and for reasonable costs incurred.
- (B) Contractor will also be similarly compensated for any approved effort expended and approved costs incurred that are directly associated with Project closeout and delivery of the required items to the City.

6.2 For Cause. City may terminate this Agreement for cause if Contractor fails to cure any breach of this Agreement within seven days after receipt of written notice specifying the breach.

- (A) Contractor will not be entitled to further payment until after City has determined its damages. If City's damages resulting from the breach, as determined by City, are less than the equitable amount due but not paid Contractor for Service and Repair furnished, City will pay the amount due to Contractor, less City's damages
- (B) If City's direct damages exceed amounts otherwise due to Contractor, Contractor must pay the difference to City immediately upon demand; however, Contractor will not be subject to consequential damages more than \$1,000,000 or the amount of this Agreement, whichever is greater.

7. Insurance.

7.1 Requirements. Contractor must obtain and maintain the following insurance ("Required Insurance").

- (A) Contractor and Sub-contractors. Contractor, and each Sub-contractor performing work or providing materials related to this Agreement must procure and maintain the insurance coverages described below (collectively, "Contractor's Policies"), until each Parties' obligations under this Agreement are completed
- (B) General Liability
- (1) Contractor must at all times relevant hereto carry a commercial general liability policy with a combined single limit of at least \$1,000,000 per occurrence and \$2,000,000 annual aggregate.
- (2) Sub-contractors must at all times relevant hereto carry a general commercial liability policy with a combined single limit of at least \$1,000,000 per occurrence.
- (3) This commercial general liability insurance must include independent contractors' liability, contractual liability, broad form property coverage, products and completed operations, XCU hazards if requested by the City, and a separation of insurance provision
- (4) These limits may be met through a combination of primary and excess liability coverage.
- (C) Auto A business auto policy providing a liability limit of at least \$1,000,000 per accident for Contractor and 1,000,000 per accident for Sub-contractors and covering owned, non-owned and hired automobiles.
- (D) Workers' Compensation and Employer's Liability. A workers' compensation and employer's liability policy providing at least the minimum benefits required by Arizona law
- (E) Equipment Insurance. Contractor must secure, pay for, and maintain all-risk insurance as necessary to protect the City against loss of owned, non-owned, rented or leased capital equipment and tools, equipment and scaffolding, staging, towers and forms owned or rented by Contractor or its Sub-contractors

- (F) Notice of Changes Contractor's Policies must provide for not less than 30 days' advance written notice to City Representative of
 - (1) Cancellation or termination of Contractor or Sub-contractor's Policies;
 - (2) Reduction of the coverage limits of any of Contractor or and Sub-contractor's Policies, and
 - (3) Any other material modification of Contractor or Sub-contractor's Policies related to this Agreement

- (G) Certificates of Insurance.
 - (1) Within 10 business days after the execution of the Agreement, Contractor must deliver to City Representative certificates of insurance for each of Contractor and Sub-contractor's Policies, which will confirm the existence or issuance of Contractor and Sub-contractor's Policies in accordance with the provisions of this section, and copies of the endorsements of Contractor and Sub-contractor's Policies in accordance with the provisions of this section
 - (2) City is and will be under no obligation either to ascertain or confirm the existence or issuance of Contractor and Sub-contractor's Policies, or to examine Contractor and Sub-contractor's Policies, or to inform Contractor or Sub-contractor in the event that any coverage does not comply with the requirements of this section
 - (3) Contractor's failure to secure and maintain Contractor Policies and to assure Sub-contractor policies as required will constitute a material default under this Agreement

- (H) Other Contractors or Vendors
 - (1) Other contractors or vendors that may be contracted by Contractor with in connection with the Project must procure and maintain insurance coverage as is appropriate to their particular agreement.
 - (2) This insurance coverage must comply with the requirements set forth above for Contractor's Policies (e g , the requirements pertaining to endorsements to name the parties as additional insured parties and certificates of insurance)

- (I) Policies Except with respect to workers' compensation and employer's liability coverages, the City must be named and properly endorsed as additional insureds on all liability policies required by this section
 - (1) The coverage extended to additional insureds must be primary and must not contribute with any insurance or self insurance policies or programs maintained by the additional insureds.
 - (2) All insurance policies obtained pursuant to this section must be with companies legally authorized to do business in the State of Arizona and acceptable to all parties.

7.2 Sub-contractors.

- (A) Contractor must also cause its Sub-contractors to obtain and maintain the Required Insurance.
- (B) City may consider waiving these insurance requirements for a specific Sub-contractor if City is satisfied the amounts required are not commercially available to the Sub-contractor and the insurance the Sub-contractor does have is appropriate for the Sub-contractor's work under this Agreement
- (C) Contractor and Sub-contractors must provide to the City proof of Required Insurance whenever requested.

7.3 Indemnification.

- (A) To the fullest extent permitted by law, Contractor must defend, indemnify, and hold harmless City and its elected officials, officers, employees and agents (each, an "Indemnified Party," collectively, the

"Indemnified Parties"), for, from, and against any and all claims, demands, actions, damages, judgments, settlements, personal injury (including sickness, disease, death, and bodily harm), property damage (including loss of use), infringement, governmental action and all other losses and expenses, including attorneys' fees and litigation expenses (each, a "Demand or Expense"; collectively, "Demands or Expenses") asserted by a third-party (i.e. a person or entity other than City or Contractor) and that arises out of or results from the breach of this Agreement by the Contractor or the Contractor's negligent actions, errors or omissions (including any Sub-contractor or other person or firm employed by Contractor), whether sustained before or after completion of the Project.

- (B) This indemnity and hold harmless policy applies even if a Demand or Expense is in part due to the Indemnified Party's negligence or breach of a responsibility under this Agreement, but in that event, Contractor shall be liable only to the extent the Demand or Expense results from the negligence or breach of a responsibility of Contractor or of any person or entity for whom Contractor is responsible
- (C) Contractor is not required to indemnify any Indemnified Parties for, from, or against any Demand or Expense resulting from the Indemnified Party's sole negligence or other fault solely attributable to the Indemnified Party.

7.4 **Waiver of Subrogation.** Contractor waives, and will require any Subcontractor to waive, all rights of subrogation against the City to the extent of all losses or damages covered by any policy of insurance.

8. **Immigration Law Compliance.**

- 8.1 Contractor, and on behalf any subcontractor, warrants, to the extent applicable under A.R.S. § 41-4401, compliance with all federal immigration laws and regulations that relate to their employees as well as compliance with A.R.S. § 23-214(A) which requires registration and participation with the E-Verify Program
- 8.2 Any breach of warranty under subsection 8.1 above is considered a material breach of this Agreement and is subject to penalties up to and including termination of this Agreement
- 8.3 City retains the legal right to inspect the papers of any Contractor or subcontractor employee who performs work under this Agreement to ensure that the Contractor or any subcontractor is compliant with the warranty under subsection 8.1 above.
- 8.4 City may conduct random inspections, and upon request of City, Contractor shall provide copies of papers and records of Contractor demonstrating continued compliance with the warranty under subsection 8.1 above. Contractor agrees to keep papers and records available for inspection by the City during normal business hours and will cooperate with City in exercise of its statutory duties and not deny access to its business premises or applicable papers or records for the purposes of enforcement of this section 8.
- 8.5 Contractor agrees to incorporate into any subcontracts under this Agreement the same obligations imposed upon Contractor and expressly accrue those obligations directly to the benefit of the City. Contractor also agrees to require any subcontractor to incorporate into each of its own subcontracts under this Agreement the same obligations above and expressly accrue those obligations to the benefit of the City
- 8.6 Contractor's warranty and obligations under this section to the City is continuing throughout the term of this Agreement or until such time as the City determines, in its sole discretion, that Arizona law has been modified in that compliance with this section is no longer a requirement.
- 8.7 The "E-Verify Program" above means the employment verification program administered by the United States Department of Homeland Security, the Social Security Administration, or any successor program

9. **Conflict.** Contractor acknowledges this Agreement is subject to A.R.S. § 38-511, which allows for cancellation of this Agreement in the event any person who is significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on City's behalf is also an employee, agent, or consultant of any other party to this Agreement.

10. **Non-Discrimination Policies.** Contractor must not discriminate against any employee or applicant for employment on the basis of race, religion, color sex or national origin. Contractor must develop, implement and maintain non-discrimination policies and post the policies in conspicuous places visible to employees and applicants for employment. Contractor will require any Sub-contractor to be bound to the same requirements as stated within this section

11. Notices.

11.1 A notice, request or other communication that is required or permitted under this Agreement (each a "Notice") will be effective only if

- (A) The Notice is in writing, and
- (B) Delivered in person or by private express overnight delivery service (delivery charges prepaid), certified or registered mail (return receipt requested)
- (C) Notice will be deemed to have been delivered to the person to whom it is addressed as of the date of receipt, if:
 - (1) Received on a business day, or before 5:00 p.m., at the address for Notices identified for the Party in this Agreement by U.S. Mail, hand delivery, or overnight courier on or before 5:00 p.m.; or
 - (2) As of the next business day after receipt, if received after 5:00 p.m.
- (D) The burden of proof of the place and time of delivery is upon the Party giving the Notice.
- (E) Digitalized signatures and copies of signatures will have the same effect as original signatures.

11.2 Representatives.

(A) Contractor. Contractor's representative ("Contractor's Representative") authorized to act on Contractor's behalf with respect to the Project, and his or her address for Notice delivery is:

Viasun Corporation
Attn: Rolando Perez
731 North 19th Avenue
Phoenix, Arizona 85009

(B) City. City's representative ("City's Representative") authorized to act on City's behalf, and his or her address for Notice delivery is

City of Glendale
Attn: Jim McMains
5850 West Glendale Avenue
Glendale, Arizona 85301

With required copies to:

City of Glendale
City Manager
5850 West Glendale Avenue
Glendale, Arizona 85301

City of Glendale
City Attorney
5850 West Glendale Avenue
Glendale, Arizona 85301

(C) Concurrent Notices.

- (1) All notices to City's representative must be given concurrently to City Manager and City Attorney
- (2) A notice will not be considered to have been received by City's representative until the time that it has also been received by City Manager and City Attorney
- (3) City may appoint one or more designees for the purpose of receiving notice by delivery of a written notice to Contractor identifying the designee(s) and their respective addresses for notices.

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(D) **Changes.** Contractor or City may change its representative or information on Notice, by giving Notice of the change in accordance with this section at least ten days prior to the change

12. **Financing Assignment.** City may assign this Agreement to any City-affiliated entity, including a non-profit corporation or other entity whose primary purpose is to own or manage the Project

13. **Entire Agreement; Survival; Counterparts; Signatures.**

13.1 **Integration.** This Agreement contains, except as stated below, the entire agreement between City and Contractor and supersedes all prior conversations and negotiations between the parties regarding the Project or this Agreement

- (A) Neither Party has made any representations, warranties or agreements as to any matters concerning the Agreement's subject matter.
- (B) Representations, statements, conditions, or warranties not contained in this Agreement will not be binding on the parties
- (C) Any solicitation, addendums and responses submitted by the Contractor are incorporated fully into this Agreement as Exhibit A Any inconsistency between Exhibit A and this Agreement will be resolved by the terms and conditions stated in this Agreement

13.2 **Interpretation.**

- (A) The parties fairly negotiated the Agreement's provisions to the extent they believed necessary and with the legal representation they deemed appropriate
- (B) The parties are of equal bargaining position and this Agreement must be construed equally between the parties without consideration of which of the parties may have drafted this Agreement
- (C) The Agreement will be interpreted in accordance with the laws of the State of Arizona.

13.3 **Survival.** Except as specifically provided otherwise in this Agreement each warranty, representation, indemnification and hold harmless provision, insurance requirement, and every other right, remedy and responsibility of a Party, will survive completion of the Project, or the earlier termination of this Agreement

13.4 **Amendment.** No amendment to this Agreement will be binding unless in writing and executed by the parties Any amendment may be subject to City Council approval

13.5 **Remedies.** All rights and remedies provided in this Agreement are cumulative and the exercise of any one or more right or remedy will not affect any other rights or remedies under this Agreement or applicable law.

13.6 **Severability.** If any provision of this Agreement is voided or found unenforceable, that determination will not affect the validity of the other provisions, and the voided or unenforceable provision will be reformed to conform to applicable law.

14.7 **Counterparts.** This Agreement may be executed in counterparts, and all counterparts will together comprise one instrument.

14. **Dispute Resolution.** Each claim, controversy and dispute ("Dispute") between Contractor and City will be resolved in accordance with Exhibit C The final determination will be made by the City

15. **Exhibits.** The following exhibits, with reference to the term in which they are first referenced, are incorporated by this reference

Exhibit A	Project
Exhibit B	Compensation
Exhibit C	Dispute Resolution

**EXHIBIT A
CONSTRUCTION AGREEMENT**

PROJECT

The FY2014 Pavement Management Program Slurry Seal project consists of approximately 626,075 LF of crack sealing, 141,716 SY of slurry seal, 39,240 SY of micro seal, thermoplastic striping and pavement markings, material testing, traffic control, and necessary appurtenances

Application of slurry seal pavement treatment is proposed for the following general locations:

- W. Grovers Ave – N. 63rd Ave to N. 59th Ave
- W. Lamar Rd – N. 55th Ave to N. 51st Ave
- W. Ocotillo Rd – N. 55th Ave to N. 51st Ave
- N. 81st Ave – W. Ocotillo Rd to W. Maryland Ave
- W. Myrtle Ave – N. 62nd Ave to W. Grand Ave
- W. Myrtle Ave – N. 69th Ave to N. 67th Ave
- N. 79th Ave – W. Orangewood Ave to W. Myrtle Ave
- W. Myrtle Ave adjacent to Glendale West Mobile Home Park
- N. 55th Ave – W. Ocotillo Rd to W. Maryland Ave
- N. 55th Ave – W. Mountain View Rd to W. Olive Ave
- N. 53rd Ave – W. Kings Ave to W. Paradise Ln
- W. Kings Ave – N. 53rd Ave to N. 51st Ave
- W. Paradise Ln – N. 71st Dr to N. 67th Ave
- N. 73rd Ave – W. Colter St to W. Camelback Rd
- N. 47th Ave - W. Mountain View Rd to W. Olive Ave
- N. 69th Ave – W. Aire Libre Ave to W. Paradise Ln
- N. 73rd Ave – W. Union Hills Dr to W. Bluefield Ave
- W. Maryland Ave – N. 59th Ave to W. Grand Ave (overpass)
- W. Maryland Ave – W. Grand Ave (overpass) to N. 51st Ave

Application of micro seal pavement treatment is proposed for the following general locations:

- W. Augusta Ave – N. 71st Ave to N. 70th Ave
- N. 70th Ave – W. Northern Ave to W. Frier Dr
- N. 68th Ave – W. Northern Ave to W. Frier Dr
- W. Frier Dr – N. 71st Ave to N. 67th Ave
- N. 69th Ave - W. Frier Dr to W. Orangewood Ave
- W. Belmont Ave – N. 69th Ave to N. 67th Ave

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**EXHIBIT B
CONSTRUCTION AGREEMENT**

COMPENSATION

METHOD AND AMOUNT OF COMPENSATION

By bid, including all services, materials and costs

NOT-TO-EXCEED AMOUNT

The total amount of compensation paid to Contractor for full completion of all work required by the Project during the entire term of the Project must not exceed \$657,714.64.

DETAILED PROJECT COMPENSATION

As shown on Pages 8 &9 of the Bid Schedule

**EXHIBIT C
CONSTRUCTION AGREEMENT**

DISPUTE RESOLUTION

1. Disputes.

- 1.1 Commitment The parties commit to resolving all disputes promptly, equitably, and in a good-faith, cost-effective manner
- 1.2 Application The provisions of this Exhibit will be used by the parties to resolve all controversies, claims, or disputes ("Dispute") arising out of or related to this Agreement-including Disputes regarding any alleged breaches of this Agreement
- 1.3 Initiation A party may initiate a Dispute by delivery of written notice of the Dispute, including the specifics of the Dispute, to the Representative of the other party as required in this Agreement.
- 1.4 Informal Resolution When a Dispute notice is given, the parties will designate a member of their senior management who will be authorized to expeditiously resolve the Dispute
- (A) The parties will provide each other with reasonable access during normal business hours to any and all non-privileged records, information and data pertaining to any Dispute in order to assist in resolving the Dispute as expeditiously and cost effectively as possible,
- (B) The parties' senior managers will meet within 10 business days to discuss and attempt to resolve the Dispute promptly, equitably, and in a good faith manner, and
- (C) The Senior Managers will agree to subsequent meetings if both parties agree that further meetings are necessary to reach a resolution of the Dispute.

2. Arbitration.

- 2.1 Rules. If the parties are unable to resolve the Dispute by negotiation within 30 days from the Dispute notice, and unless otherwise informal discussions are extended by the mutual agreement, the Dispute will be decided by binding arbitration in accordance with Construction Industry Rules of the AAA, as amended herein. Although the arbitration will be conducted in accordance with AAA Rules, it will not be administered by the AAA, but will be heard independently.
- (A) The parties will exercise best efforts to select an arbitrator within 5 business days after agreement for arbitration. If the parties have not agreed upon an arbitrator within this period, the parties will submit the selection of the arbitrator to one of the principals of the mediation firm of Scott & Skelly, LLC, who will then select the arbitrator. The parties will equally share the fees and costs incurred in the selection of the arbitrator.
- (B) The arbitrator selected must be an attorney with at least 15 years experience with commercial construction legal matters in Maricopa County, Arizona, be independent, impartial, and not have engaged in any business for or adverse to either Party for at least 10 years
- 2.2 Discovery The extent and the time set for discovery will be as determined by the arbitrator. Each Party must, however, within ten (10) days of selection of an arbitrator deliver to the other Party copies of all documents in the delivering party's possession that are relevant to the dispute.
- 2.3 Hearing The arbitration hearing will be held within 90 days of the appointment of the arbitrator. The arbitration hearing, all proceedings, and all discovery will be conducted in Glendale, Arizona unless otherwise agreed by the parties or required as a result of witness location. Telephonic hearings and other reasonable arrangements may be used to minimize costs
- 2.4 Award. At the arbitration hearing, each Party will submit its position to the arbitrator, evidence to support that position, and the exact award sought in this matter with specificity. The arbitrator must select the award sought

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by one of the parties as the final judgment and may not independently alter or modify the awards sought by the parties, fashion any remedy, or make any equitable order. The arbitrator has no authority to consider or award punitive damages.

2.5 Final Decision The Arbitrator's decision should be rendered within 15 days after the arbitration hearing is concluded. This decision will be final and binding on the Parties.

2.6 Costs The prevailing party may enter the arbitration in any court having jurisdiction in order to convert it to a judgment. The non-prevailing party shall pay all of the prevailing party's arbitration costs and expenses, including reasonable attorney's fees and costs.

3. **Services to Continue Pending Dispute.** Unless otherwise agreed to in writing, Contractor must continue to perform and maintain progress of required services during any Dispute resolution or arbitration proceedings, and City will continue to make payment to Contractor in accordance with this Agreement.

4. **Exceptions.**

4.1 Third Party Claims City and Contractor are not required to arbitrate any third-party claim, cross-claim, counter claim, or other claim or defense of a third-party who is not obligated by contract to arbitrate disputes with City and Contractor.

4.2 Liens City or Contractor may commence and prosecute a civil action to contest a lien or stop notice, or enforce any lien or stop notice, but only to the extent the lien or stop notice the Party seeks to enforce is enforceable under Arizona Law, including, without limitation, an action under A.R.S. § 33-420, without the necessity of initiating or exhausting the procedures of this Exhibit.

4.3 Governmental Actions This Exhibit does not apply to, and must not be construed to require arbitration of, any claims, actions or other process filed or issued by City of Glendale Building Safety Department or any other agency of City acting in its governmental permitting or other regulatory capacity.

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The parties enter into this Agreement as of the date shown above

City of Glendale,
an Arizona municipal corporation


By: Brenda S Fischer
Its: City Manager

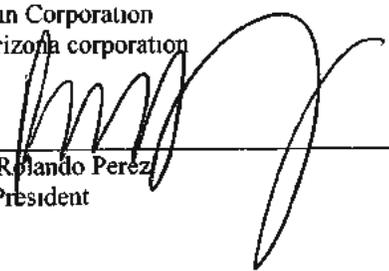
ATTEST


City Clerk (SEAL)

APPROVED AS TO FORM.


City Attorney

Viasun Corporation
an Arizona corporation


By: Rolando Perez
Its: President

WOMEN-OWNED/MINORITY BUSINESS YES [] NO
CITY OF GLENDALE TRANSACTION PRIVILEGE TAX NO. 
FEDERAL TAXPAYER IDENTIFICATION NO. 

INDIVIDUAL SURETIES WILL NOT BE ACCEPTED
STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34,
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

Western
National
Mutual
Insurance
Company

That ViaSun Corporation (hereinafter called the Principal), as Principal, and
, a corporation organized and existing under the laws of the State of MN with its principal office in the
City of Edina, (hereinafter called the Surety), as Surety, are held and firmly bound unto the City of
Glendale, a municipal corporation, (hereinafter called the Obligee), in the amount of
Six Hundred Fifty Seven Thousand Seven Hundred Fourteen Dollars and 00 Dollars (\$ 657,714.64), for the
64/100 payment whereof; the said Principal and Surety bind themselves, and their heirs, administrators, successors and
assigns, jointly and severally, firmly by these presents.

WHEREAS, The Principal has entered into a certain written contract with the Obligee, dated the 23rd day of September
, 20 14, to construct **PROJECT 131403 - FY2014 PAVEMENT MANAGEMENT PROGRAM, SLURRY
SEAL**, which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied
at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall
faithfully perform and fulfill all undertakings, covenants, terms, conditions and agreements of said contract
during the original term of said contract any extension thereof, with or without notice to the Surety, and during
the life of any guaranty required under the contract and shall also perform and fulfill all the undertakings,
covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that
may hereafter be made, notice of which modifications to the Surety being hereby waived; then the above
obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article
2, of the Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the
provisions of said Title, Chapter, and Article, to the extent as if it were copied at length herein.

The prevailing party or any party which recovers judgment on this bond shall be entitled to such reasonable
attorney's fees as may be fixed by the court or a judge thereof.

Witness our hands this 12th day of October, 20 14.

ViaSun Corporation
Principal Seal

By [Signature]
Deborah E. Williams

Western National Mutual Insurance Company Surety Seal Deborah E. Williams, Attorney-In-Fact

DEWCO, LLC
Agency of Record

4645 S. Lakeshore Drive, Ste. 14, Tempe, AZ 85282
Agency Address

Telephone Number: 480-897-1154

Bond Number 17504

INDIVIDUAL SURETIES WILL NOT BE ACCEPTED
STATUTORY PAYMENT BOND PURSUANT TO TITLE 34,
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

Western
National
Mutual
Insurance
Company

That, ViaSun Corporation (hereinafter called the Principal), as Principal, and
, a corporation organized and existing under the laws of the State of MN with its principal
office in the City of Edina, (hereinafter called the Surety), as Surety, are held and firmly
bound unto the City of Glendale, a municipal corporation, (hereinafter called the Oblige), in the
amount of *** See Below Dollars (\$ 657,714.64), for the payment whereof; the said Principal and
Surety bind themselves, and their heirs, administrators, successors and assigns, jointly and severally,
firmly by these presents.

WHEREAS, The Principal has entered into a certain written contract with the Oblige, dated the ^{12th}
day of September, 20 14, to construct **PROJECT 131403 - FY2014 PAVEMENT
MANAGEMENT PROGRAM, SLURRY SEAL** which contract is hereby referred to and made a
part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said
Principal shall promptly pay all monies due to all persons supplying labor or materials to him or his
subcontractors in the prosecution of the work provided for in said Contract, then this obligation shall
be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond having been required of the said Principal in order to
comply with the provisions of Title 34, Chapter 2, Article 2, of the Arizona Revised Statutes, all
rights and remedies on this bond shall inure solely to such persons and shall be determined in
accordance with the provisions, conditions, and limitations of said Title, Chapter and Article, to the
same extent as if they were copied at length herein.

The prevailing party or any party which recovers judgment on this bond shall be entitled to such
reasonable attorney's fees as may be fixed by the court or a judge thereof.

Witness our hands this 12th day of October, 20 14.

Principal ViaSun Corporation Seal

By [Signature]

Western National Mutual Insurance Company
Surety Deborah E. Williams, Attorney-In-Fact Seal

DEWCO, LLC

Agency of Record

Agency 4645 S Lakeshore Drive, Ste 14, Tempe, AZ 85282 Address

Telephone 480-897-1154

***Six Hundred Fifty Seven Thousand
Seven Hundred Fourteen Dollars and
64/100

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS That Western National Mutual Insurance Company, a Minnesota mutual insurance company, does make, constitute and appoint Deborah E. Williams, Roman E. Ruiz and Veronique Himnich #9414 DEWCO, L.L.C.

Its true and lawful Attorney(s)-in-Fact, with full power and authority for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto (if a seal is required) bond, undertakings, recognizances or other written obligations in the nature thereof, (other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and note guaranty bonds, self-insurance workers compensation bonds guaranteeing payment of benefits, asbestos abatement contract bonds, waste management bonds, hazardous waste remediation bonds or black lung bonds), as follows:

All written instruments in an amount not to exceed an aggregate of Five Million Dollars (\$5,000,000.00) for any single obligation, regardless of the number of instruments issued for the obligation.

and to bind Western National Mutual Insurance Company thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a meeting held on September 28, 2010. This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of Western National Mutual Insurance Company on September 28, 2010:

RESOLVED that the president, any vice president, or assistant vice president in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the Company to bonds, undertakings, recognizances, and suretyship obligations of all kinds, and said officers may remove any such attorney-in-fact or agent and revoke any Power of Attorney previously granted to such person.

RESOLVED FURTHER that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company

- (i) when signed by the president, any vice president or assistant vice president, and attested and sealed (if a seal be required) by any secretary or assistant secretary; or
- (ii) when signed by the president, any vice president or assistant vice president, secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or
- (iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the Power of Attorney issued by the Company to such person or persons.

RESOLVED FURTHER that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, Western National Mutual Insurance Company has caused these presents to be signed by its proper officer and its corporate seal to be affixed this 21st day of June, 2013.

Joseph Pingatore, Secretary



Daniel E. Stein, Vice-President

STATE OF MINNESOTA, COUNTY OF HENNEPIN.

On this 21st day of June, 2013, personally came before me, Daniel E. Stein and Joseph Pingatore to me known to be the individuals and officers of the Western National Mutual Insurance Company who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally dispose and say that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said corporation.



Jennifer A. Young, Notary Public
My commission expires January 31, 2016

CERTIFICATE
I, the undersigned, assistant secretary of the Western National Mutual Insurance Company, a Minnesota corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked, and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

Signed and sealed at the City of Edina, MN this 12th day of October, 2014

Jennifer A. Young, Assistant Secretary





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/09/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER PAYCHEX INSURANCE AGENCY INC 150 SAWGRASS DR ROCHESTER, NY 14620 (877) 362-6785	CONTACT NAME PHONE (A/C, No, Ext): (877) 362-6785		FAX (A/C, No): (877) 677-0447
	E-MAIL ADDRESS: paychex@travelers.com		
INSURED VIASUN CORPORATION 731 N 19TH AVE PHOENIX, AZ 85009	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A THE TRAVELERS INDEMNITY COMPANY OF CONNECTICUT		
	INSURER B :		
	INSURER C :		
	INSURER D :		
	INSURER E :		
INSURER F			

COVERAGES **CERTIFICATE NUMBER:** 604354232261282 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	<input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER						<input type="checkbox"/> EACH OCCURRENCE \$ <input type="checkbox"/> DAMAGE TO RENTED PREMISES (Ea occurrence) \$ <input type="checkbox"/> MED EXP (Any one person) \$ <input type="checkbox"/> PERSONAL & ADV INJURY \$ <input type="checkbox"/> GENERAL AGGREGATE \$ <input type="checkbox"/> PRODUCTS - COMP/OP AGG \$	
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						<input type="checkbox"/> COMBINED SINGLE LIMIT (Ea accident) \$ <input type="checkbox"/> BODILY INJURY (Per person) \$ <input type="checkbox"/> BODILY INJURY (Per accident) \$ <input type="checkbox"/> PROPERTY DAMAGE (Per accident) \$ <input type="checkbox"/>	
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						<input type="checkbox"/> EACH OCCURRENCE \$ <input type="checkbox"/> AGGREGATE \$ <input type="checkbox"/>	
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	UB-2D213542-14	05/08/2014	05/08/2015	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E L EACH ACCIDENT \$100,000 <input type="checkbox"/> E L DISEASE - EA EMPLOYEE \$100,000 <input type="checkbox"/> E L DISEASE - POLICY LIMIT \$500,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
RE PROJECT# 131403 - FY14 PAVEMENT MANAGEMENT PROGRAM, SLURRY SEAL

CERTIFICATE HOLDER CITY OF GLENDALE 5850 WEST GLENDALE AVE GLENDALE, AZ 85301	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Mary J. Swan</i>
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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/9/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lovitt & Touché, Inc. - Tempe 1050 W Washington Street, Suite 233 Tempe AZ 85281	CONTACT NAME Elaine Leman	
	PHONE (A/C, No, Ext) 602-956-2250	FAX (A/C, No) 602-956-2258
E-MAIL ADDRESS: eleman@lovitt-touche.com		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A: Cincinnati Insurance Company		10677
INSURER B: Travelers Property Casualty Co of A		25674
INSURER C:		
INSURER D:		
INSURER E:		
INSURER F:		

COVERAGES **CERTIFICATE NUMBER:** 819846912 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GENL AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	Y	Y	EPP024827	4/30/2014	4/30/2015	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS	Y	Y	EPP024827	4/30/2014	4/30/2015	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$0 <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE			ZUP61M0422414NF	4/30/2014	4/30/2015	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N		N/A			WC STATUTORY LIMITS OTH-ER E L EACH ACCIDENT \$ E L DISEASE - EA EMPLOYEE \$ E L DISEASE - POLICY LIMIT \$
A	Leased/Rented Equipment			EPP024827	4/30/2014	4/30/2015	Limit \$100,000 Deductible \$1,000 Scheduled Equipment \$544,599.82

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Certificate Holder and owner (if applicable) are additional insureds as respects general liability, automobile liability and excess liability if required in a written contract. Waiver of Subrogation applies to the general liability, auto liability, excess liability if required in a written contract. The general liability is primary and certificate holder's insurance is non-contributory if required by written contract. per attached forms:GA233AZ 9/09, GA4316AZ 9/09, GA4094 10/01, AA4171 11/05, AA4172 9/09

Project 131403-FY2014 Pavement Management Program, Slurry Seal

CERTIFICATE HOLDER City of Glendale 5850 W Glendale Avenue Glendale AZ 85301	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
--	--

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CONTRACTORS' COMMERCIAL GENERAL LIABILITY BROADENED ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. Endorsement - Table of Contents:

<u>Coverage:</u>	<u>Begins on Page:</u>
1. Employee Benefit Liability Coverage	2
2. Unintentional Failure to Disclose Hazards	7
3. Damage to Premises Rented to You.	8
4. Supplementary Payments	9
5. Medical Payments.....	9
6. Voluntary Property Damage (Coverage a.) and Care, Custody or Control Liability Coverage (Coverage b.).....	9
7. 180 Day Coverage for Newly Formed or Acquired Organizations ..	10
8. Waiver of Subrogation	10
9. Automatic Additional Insured - Specified Relationships:	10
• Managers or Lessors of Premises, • Lessor of Leased Equipment, • Vendors; • State or Political Subdivisions - Permits Relating to Premises; • State or Political Subdivisions - Permits, and • Contractors' Operations	
10. Broadened Contractual Liability - Work Within 50' of Railroad Property	13
11. Property Damage to Borrowed Equipment.	13
12. Employees as Insureds - Specified Health Care Services:	14
• Nurses; • Emergency Medical Technicians, and • Paramedics	
13. Broadened Notice of Occurrence.....	14

B. Limits of Insurance:

The Commercial General Liability Limits of Insurance apply to the insurance provided by this endorsement, except as provided below

1. Employee Benefit Liability Coverage

Each Employee Limit: \$ 1,000,000
Aggregate Limit: \$ 3,000,000
Deductible. \$ 1,000

3. Damage to Premises Rented to You

The lesser of:

- The Each Occurrence Limit shown in the Declarations; or
- \$500,000 unless otherwise stated \$ _____

4. Supplementary Payments

- Bail bonds: \$ 1,000
- Loss of earnings \$ 350

C. SECTION III - LIMITS OF INSURANCE is amended to include

The limits of insurance available to the additional insured(s) will not exceed:

1. Those limits specified in the written construction contract or agreement referred to in Paragraph A.2.e. above; or
2. The Limits of Insurance specified in the Declarations of this Coverage Part,

whichever are less. If no limits are specified in that written construction contract or agreement, the limits available to the additional insured(s) will not exceed the Limits of Insurance specified in the Declarations of this Coverage Part. The limits of insurance available to the additional insured(s) are inclusive of and not in addition to the Limits of Insurance shown in the Declarations.

D. SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS is amended to include the following

AUTOMATIC ADDITIONAL INSURED PROVISION

The written construction contract or agreement referred to in Paragraph A.2.e. above must:

1. Be currently in effect or become effective during the term of this Coverage Part; and
2. Have been executed prior to the "bodily injury" or "property damage" to which this endorsement pertains

E. SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 5. Other Insurance, b. Excess Insurance is amended to include the following

1. Where required by the written construction contract or agreement referred to in Paragraph A.2.e. above, this insurance is primary and / or noncontributory as respects any other insurance policy issued to the additional insured, and such other insurance policy shall be excess and / or

noncontributing, whichever applies, with this insurance.

2. Any insurance provided by this endorsement shall be primary to other insurance available to the additional insured except

a. As otherwise provided in SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 5. Other Insurance, b. Excess Insurance; or

b. When other valid and collectible insurance is available to the additional insured

(1) As an additional insured by attachment of an endorsement to another insurance policy; and

(2) On an excess basis.

In such case the coverage provided under this endorsement shall also be excess

F. SECTION V - DEFINITIONS is amended to include

1. "Residential construction" means:

a. A structure where any of the structure's square foot area is used, or is intended, for the purpose of human habitation and includes, but is not limited to, single-family housing, multi-family housing, apartments, condominiums, townhouses, and similar structures intended for human habitation; and

b. Common areas and appurtenant structures of those structures listed in Paragraph 1.a. above

"Residential construction" does not include:

a. Hospitals or prisons; and

b. Military housing, dormitories, long-term care facilities, hotels or motels, provided there is no individual ownership of units

5. Medical Payments

Medical Expense Limit: \$ 10,000

6. Voluntary Property Damage (Coverage a.) and Care, Custody or Control Liability Coverage (Coverage b.)

Limits of Insurance (Each Occurrence)

Coverage a. \$1,000

Coverage b. \$5,000 unless otherwise stated \$ _____

Deductibles (Each Occurrence)

Coverage a. \$250

Coverage b. \$250 unless otherwise stated \$ _____

COVERAGE	PREMIUM BASIS (a) Area (b) Payroll (c) Gross Sales (d) Units (e) Other	RATE (For Limits in Excess of \$5,000)	ADVANCE PREMIUM (For Limits in Excess of \$5,000)
b. Care, Custody or Control			\$
TOTAL ANNUAL PREMIUM			\$

11. Property Damage to Borrowed Equipment

Each Occurrence Limit \$ 10,000
Deductible \$ 250

C. Coverages:

1. Employee Benefit Liability Coverage

a. The following is added to **SECTION I - COVERAGES: Employee Benefit Liability Coverage.**

(1) Insuring Agreement

(a) We will pay those sums that the insured becomes legally obligated to pay as damages caused by any act, error or omission of the insured, or of any other person for whose acts the insured is legally liable, to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend against any "suit" seeking damages to which this insurance does not apply. We may, at our discretion, investigate any report of an act, error or omission and settle any claim or "suit" that may result. But

1) The amount we will pay for damages is limited as described in **SECTION III - LIMITS OF INSURANCE**, and

2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments.

(b) This insurance applies to damages only if the act, error or omission, is negligently committed in the "administration" of your "employee benefit program"; and

1) Occurs during the policy period, or

2) Occurred prior to the effective date of this endorsement provided:

a) You did not have knowledge of a claim or "suit" on or before the effective date of this endorsement.

You will be deemed to have

knowledge of a claim or "suit" when any "authorized representative",

- i) Reports all, or any part, of the act, error or omission to us or any other insurer,
 - ii) Receives a written or verbal demand or claim for damages because of the act, error or omission; and
- b) There is no other applicable insurance.

(2) Exclusions

This insurance does not apply to:

(a) Bodily Injury, Property Damage or Personal and Advertising Injury

"Bodily injury", "property damage" or "personal and advertising injury"

(b) Dishonest, Fraudulent, Criminal or Malicious Act

Damages arising out of any intentional, dishonest, fraudulent, criminal or malicious act, error or omission, committed by any insured, including the willful or reckless violation of any statute.

(c) Failure to Perform a Contract

Damages arising out of failure of performance of contract by any insurer.

(d) Insufficiency of Funds

Damages arising out of an insufficiency of funds to meet any obligations under any plan included in the "employee benefit program"

(e) Inadequacy of Performance of Investment / Advice Given With Respect to Participation

Any claim based upon

- 1) Failure of any investment to perform,
- 2) Errors in providing information on past performance of investment vehicles; or
- 3) Advice given to any person with respect to that person's decision to participate or not to participate in any plan included in the "employee benefit program".

(f) Workers' Compensation and Similar Laws

Any claim arising out of your failure to comply with the mandatory provisions of any workers' compensation, unemployment compensation insurance, social security or disability benefits law or any similar law.

(g) ERISA

Damages for which any insured is liable because of liability imposed on a fiduciary by the Employee Retirement Income Security Act of 1974, as now or hereafter amended, or by any similar federal, state or local laws.

(h) Available Benefits

Any claim for benefits to the extent that such benefits are available, with reasonable effort and cooperation of the insured, from the applicable funds accrued or other collectible insurance.

(i) Taxes, Fines or Penalties

Taxes, fines or penalties, including those imposed under the Internal Revenue Code or any similar state or local law.

(j) Employment-Related Practices

Any liability arising out of any:

- (1) Refusal to employ;
- (2) Termination of employment;
- (3) Coercion, demotion, evaluation, reassign-

ment, discipline, defam-
ation, harassment,
humiliation, discrimina-
tion or other employ-
ment-related practices,
acts or omissions; or

- (4) Consequential liability
as a result of (1), (2) or
(3) above.

This exclusion applies
whether the insured may be
held liable as an employer
or in any other capacity and
to any obligation to share
damages with or repay
someone else who must
pay damages because of
the injury.

(3) Supplementary Payments

**SECTION I - COVERAGES,
SUPPLEMENTARY PAY-
MENTS - COVERAGES A AND
B** also apply to this Coverage.

b. Who is an Insured

As respects Employee Benefit Liabil-
ity Coverage, **SECTION II - WHO IS
AN INSURED** is deleted in its en-
tirety and replaced by the following:

- (1) If you are designated in the
Declarations as:
- (a) An individual, you and your
spouse are insureds, but
only with respect to the
conduct of a business of
which you are the sole
owner.
 - (b) A partnership or joint ven-
ture, you are an insured.
Your members, your part-
ners, and their spouses are
also insureds but only with
respect to the conduct of
your business
 - (c) A limited liability company,
you are an insured. Your
members are also insureds,
but only with respect to the
conduct of your business.
Your managers are in-
sureds, but only with re-
spect to their duties as your
managers.
 - (d) An organization other than
a partnership, joint venture
or limited liability company,
you are an insured. Your
"executive officers" and di-
rectors are insureds, but
only with respect to their
duties as your officers or di-

rectors. Your stockholders
are also insureds, but only
with respect to their liability
as stockholders.

- (e) A trust, you are an insured.
Your trustees are also in-
sureds, but only with re-
spect to their duties as
trustees.

- (2) Each of the following is also an
insured:

(a) Each of your "employees"
who is or was authorized to
administer your "employee
benefit program".

(b) Any persons, organizations
or "employees" having
proper temporary authori-
zation to administer your
"employee benefit program"
if you die, but only until your
legal representative is ap-
pointed.

(c) Your legal representative if
you die, but only with re-
spect to duties as such.
That representative will
have all your rights and du-
ties under this Coverage
Part.

- (3) Any organization you newly ac-
quire or form, other than a part-
nership, joint venture or limited
liability company, and over
which you maintain ownership
or majority interest, will qualify
as a Named Insured if no other
similar insurance applies to that
organization. However, cover-
age under this provision

(a) Is afforded only until the
180th day after you acquire
or form the organization or
the end of the policy period,
whichever is earlier, and

(b) Does not apply to any act,
error or omission that was
committed before you ac-
quired or formed the or-
ganization

c. Limits of Insurance

As respects Employee Benefit Liabil-
ity Coverage, **SECTION III - LIMITS
OF INSURANCE** is deleted in its en-
tirety and replaced by the following:

- (1) The Limits of Insurance shown
in Section B. **Limits of Insur-
ance, 1. Employee Benefit Li-
ability Coverage** and the rules

below fix the most we will pay regardless of the number of

- (a) Insureds,
 - (b) Claims made or "suits" brought;
 - (c) Persons or organizations making claims or bringing "suits",
 - (d) Acts, errors or omissions, or
 - (e) Benefits included in your "employee benefit program".
- (2) The Aggregate Limit shown in Section B. **Limits of Insurance, 1. Employee Benefit Liability Coverage** of this endorsement is the most we will pay for all damages because of acts, errors or omissions negligently committed in the "administration" of your "employee benefit program"
- (3) Subject to the limit described in (2) above, the Each Employee Limit shown in Section B. **Limits of Insurance, 1. Employee Benefit Liability Coverage** of this endorsement is the most we will pay for all damages sustained by any one "employee", including damages sustained by such "employee's" dependents and beneficiaries, as a result of.

- (a) An act, error or omission; or
- (b) A series of related acts, errors or omissions, regardless of the amount of time that lapses between such acts, errors or omissions,

negligently committed in the "administration" of your "employee benefit program".

However, the amount paid under this endorsement shall not exceed, and will be subject to the limits and restrictions that apply to the payment of benefits in any plan included in the "employee benefit program".

(4) **Deductible Amount**

- (a) Our obligation to pay damages on behalf of the insured applies only to the amount of damages in excess of the deductible amount stated in the Declarations as applicable to Each Employee. The limits of insurance shall not be

reduced by the amount of this deductible.

- (b) The deductible amount stated in the Declarations applies to all damages sustained by any one "employee", including such "employee's" dependents and beneficiaries, because of all acts, errors or omissions to which this insurance applies.

- (c) The terms of this insurance, including those with respect to:

- 1) Our right and duty to defend the insured against any "suits" seeking those damages, and

- 2) Your duties, and the duties of any other involved insured, in the event of an act, error or omission, or claim,

apply irrespective of the application of the deductible amount

- (d) We may pay any part or all of the deductible amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the deductible amount as we have paid.

d. **Additional Conditions**

As respects **Employee Benefit Liability Coverage, SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS** is amended as follows:

- (1) Item 2. **Duties in the Event of Occurrence, Offense, Claim or Suit** is deleted in its entirety and replaced by the following

2. **Duties in the Event of an Act, Error or Omission, or Claim or Suit**

- a. You must see to it that we are notified as soon as practicable of an act, error or omission which may result in a claim. To the extent possible, notice should include:

- (1) What the act, error or omission was and when it occurred, and

- (2) The names and addresses of anyone who may suffer dam-

ages as a result of the act, error or omission.

- b. If a claim is made or "suit" is brought against any insured, you must

- (1) Immediately record the specifics of the claim or "suit" and the date received, and
- (2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

- c. You and any other involved insured must:

- (1) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit",
- (2) Authorize us to obtain records and other information;
- (3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit", and
- (4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of an act, error or omission to which this insurance may also apply.

- d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense without our consent.

- (2) Item 5. **Other Insurance** is deleted in its entirety and replaced by the following

5. Other Insurance

If other valid and collectible insurance is available to the insured for a loss we cover under this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

This insurance is primary except when c. below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the

method described in b. below.

b. Method of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

c. No Coverage

This insurance shall not cover any loss for which the insured is entitled to recovery under any other insurance in force previous to the effective date of this Coverage Part.

e. Additional Definitions

As respects **Employee Benefit Liability Coverage, SECTION V - DEFINITIONS** is amended as follows:

- (1) The following definitions are added:

1. "Administration" means

- a. Providing information to "employees", including their dependents and beneficiaries, with respect to eligibility for or scope of "employee benefit programs";
- b. Interpreting the "employee benefit programs",
- c. Handling records in connection with the "employee benefit programs", or

- d. Effecting, continuing or terminating any "employee's" participation in any benefit included in the "employee benefit program".

However, "administration" does not include

- a. Handling payroll deductions, or
 - b. The failure to effect or maintain any insurance or adequate limits of coverage of insurance, including but not limited to unemployment insurance, social security benefits, workers' compensation and disability benefits
2. "Cafeteria plans" means plan authorized by applicable law to allow "employees" to elect to pay for certain benefits with pre-tax dollars.
3. "Employee benefit programs" means a program providing some or all of the following benefits to "employees", whether provided through a "cafeteria plan" or otherwise:
- a. Group life insurance, group accident or health insurance; dental, vision and hearing plans; and flexible spending accounts, provided that no one other than an "employee" may subscribe to such benefits and such benefits are made generally available to those "employees" who satisfy the plan's eligibility requirements,
 - b. Profit sharing plans, employee savings plans, employee stock ownership plans, pension plans and stock subscription plans, provided that no one other than an "employee" may subscribe to such benefits and such benefits are made generally available to all "employees" who are eligible under the plan for such benefits,

- c. Unemployment insurance, social security benefits, workers' compensation and disability benefits; and

- d. Vacation plans, including buy and sell programs, leave of absence programs, including military, maternity, family, and civil leave, tuition assistance plans; transportation and health club subsidies.

(2) The following definitions are deleted in their entirety and replaced by the following

21. "Suit" means a civil proceeding in which money damages because of an act, error or omission to which this insurance applies are alleged. "Suit" includes.

- a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent;

- b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent; or

- c. An appeal of a civil proceeding.

8. "Employee" means a person actively employed, formerly employed, on leave of absence or disabled, or retired. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".

2. Unintentional Failure to Disclose Hazards

SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 7. Representations is hereby amended by the addition of the following:

Based on our dependence upon your representations as to existing hazards, if unintentionally you should fail to disclose all such hazards at the inception date of your policy, we will not reject coverage under this Coverage Part based solely on such failure.

3. Damage to Premises Rented to You

- a. The last Subparagraph of Paragraph 2. **SECTION I - COVERAGES, COVERAGE A. - BODILY INJURY AND PROPERTY DAMAGE, 2. LIABILITY Exclusions** is hereby deleted and replaced by the following:

Exclusions c. through q. do not apply to damage by fire, explosion, lightning, smoke or soot to premises while rented to you or temporarily occupied by you with permission of the owner.

- b. The insurance provided under **SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** applies to "property damage" arising out of water damage to premises that are both rented to and occupied by you.

- (1) As respects Water Damage Legal Liability, as provided in Paragraph 3.b. above

The exclusions under **SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY, 2. Exclusions**, other than **War and the Nuclear Energy Liability Exclusion**, are deleted and the following are added.

This insurance does not apply to:

(a) "Property damage"

- 1) Assumed in any contract; or
- 2) Loss caused by or resulting from any of the following:
 - a) Wear and tear;
 - b) Rust, corrosion, fungus, decay, deterioration, hidden or latent defect or any quality in property that causes it to damage or destroy itself,
 - c) Smog;
 - d) Mechanical breakdown including rupture or bursting caused by centrifugal force;

- e) Settling, cracking, shrinking or expansion; or
- f) Nesting or infestation, or discharge or release of waste products or secretions, by insects, birds, rodents or other animals.

- (b) Loss caused directly or indirectly by any of the following

- 1) Earthquake, volcanic eruption, landslide or any other earth movement;
- 2) Water that backs up or overflows from a sewer, drain or sump;
- 3) Water under the ground surface pressing on, or flowing or seeping through:
 - a) Foundations, walls, floors or paved surfaces;
 - b) Basements, whether paved or not, or
 - c) Doors, windows or other openings.

- (c) Loss caused by or resulting from water that leaks or flows from plumbing, heating, air conditioning, or fire protection systems caused by or resulting from freezing, unless

- 1) You did your best to maintain heat in the building or structure, or
- 2) You drained the equipment and shut off the water supply if the heat was not maintained.

- (d) Loss to or damage to:

- 1) Plumbing, heating, air conditioning, fire protection systems, or other equipment or appliances, or
- 2) The interior of any building or structure, or to personal property in the building or structure

caused by or resulting from rain, snow, sleet or ice, whether driven by wind or not.

c. Limit of Insurance

The Damage to Premises Rented to You Limit as shown in the Declarations is amended as follows

(2) Paragraph 6. of **SECTION III - LIMITS OF INSURANCE** is hereby deleted and replaced by the following:

6. Subject to 5. above, the Damage to Premises Rented to You Limit is the most we will pay under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**, for damages because of "property damage" to premises while rented to you or temporarily occupied by you with permission of the owner, arising out of any one "occurrence" to which this insurance applies.

(3) The amount we will pay is limited as described in Section B. **Limits of Insurance, 3. Damage to Premises Rented to You** of this endorsement.

4. Supplementary Payments

Under **SECTION I - COVERAGE, SUPPLEMENTARY PAYMENTS - COVERAGES A AND B:**

a. Paragraph 2, is replaced by the following:

Up to the limit shown in Section B. **Limits of Insurance, 4.a. Bail Bonds** of this endorsement for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.

b. Paragraph 4, is replaced by the following:

All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to the limit shown in Section B. **Limits of Insurance, 4.b. Loss of Earnings** of this endorsement per day because of time off from work.

5. Medical Payments

The Medical Expense Limit of Any One Person as stated in the Declarations is amended to the limit shown in Section B. **Limits of Insurance, 5. Medical Payments** of this endorsement.

6. Voluntary Property Damage and Care, Custody or Control Liability Coverage

a. **Voluntary Property Damage Coverage**

We will pay for "property damage" to property of others arising out of operations incidental to the insured's business when

- (1) Damage is caused by the insured; or
- (2) Damage occurs while in the insured's possession.

With your consent, we will make these payments regardless of fault.

b. **Care, Custody or Control Liability Coverage**

SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY, 2. Exclusions, j. Damage to Property, Subparagraphs (3), (4) and (5) do not apply to "property damage" to the property of others described therein.

With respect to the insurance provided by this section of the endorsement, the following additional provisions apply:

a. The Limits of Insurance shown in the Declarations are replaced by the limits designated in Section B. **Limits of Insurance, 6. Voluntary Property Damage and Care, Custody or Control Liability Coverage** of this endorsement with respect to coverage provided by this endorsement. These limits are inclusive of and not in addition to the limits being replaced. The Limits of Insurance shown in Section B. **Limits of Insurance, 6. Voluntary Property Damage and Care, Custody or Control Liability Coverage** of this endorsement fix the most we will pay in any one "occurrence" regardless of the number of.

- (1) Insureds;
- (2) Claims made or "suits" brought; or
- (3) Persons or organizations making claims or bringing "suits".

b. Deductible Clause

- (1) Our obligation to pay damages on your behalf applies only to the amount of damages for each "occurrence" which are in excess of the deductible amount stated in Section B. **Limits of Insurance, 6. Voluntary Property Damage and Care, Custody or Control Liability Coverage** of this endorsement. The limits of insurance will not be reduced by the application of such deductible amount.
- (2) **Condition 2. Duties in the Event of Occurrence, Offense, Claim or Suit**, applies to each claim or "suit" irrespective of the amount.
- (3) We may pay any part or all of the deductible amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the deductible amount as has been paid by us.

7. 180 Day Coverage for Newly Formed or Acquired Organizations

SECTION II - WHO IS AN INSURED is amended as follows

Subparagraph a. of Paragraph 4. is hereby deleted and replaced by the following

- a. Insurance under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier;

8. Waiver of Subrogation

SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 9. Transfer of Rights of Recovery Against Others to Us is hereby amended by the addition of the following

We waive any right of recovery we may have because of payments we make for injury or damage arising out of your on-going operations or "your work" done under a written contract requiring such waiver with that person or organization and included in the "products-completed operations hazard". However, our rights may only be waived prior to the "occurrence" giving rise to the injury or damage for which we make payment under this Coverage Part. The insured must do nothing after a loss to impair our rights. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce those rights.

9. Automatic Additional Insured - Specified Relationships

a. The following is hereby added to **SECTION II - WHO IS AN INSURED:**

- (1) Any person or organization described in Paragraph 9.a.(2) below (hereinafter referred to as additional insured) whom you are required to add as an additional insured under this Coverage Part by reason of:

- (a) A written contract or agreement; or
- (b) An oral agreement or contract where a certificate of insurance showing that person or organization as an additional insured has been issued,

is an insured, provided:

- (a) The written or oral contract or agreement is:

- 1) Currently in effect or becomes effective during the policy period, and
- 2) Executed prior to an "occurrence" or offense to which this insurance would apply, and

- (b) They are not specifically named as an additional insured under any other provision of, or endorsement added to, this Coverage Part.

- (2) Only the following persons or organizations are additional insureds under this endorsement, and insurance coverage provided to such additional insureds is limited as provided herein:

- (a) The manager or lessor of a premises leased to you with whom you have agreed per Paragraph 9.a.(1) above to provide insurance, but only with respect to liability arising out of the ownership, maintenance or use of that part of a premises leased to you, subject to the following additional exclusions

This insurance does not apply to.

- 1) Any "occurrence" which takes place after

you cease to be a tenant in that premises.

- 2) Structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.
- (b) Any person or organization from which you lease equipment with whom you have agreed per Paragraph 9.a.(1) above to provide insurance. Such person(s) or organization(s) are insureds solely with respect to their liability arising out of the maintenance, operation or use by you of equipment leased to you by such person(s) or organization(s). However, this insurance does not apply to any "occurrence" which takes place after the equipment lease expires.
- (c) Any person or organization (referred to below as vendor) with whom you have agreed per Paragraph 9.a.(1) above to provide insurance, but only with respect to "bodily injury" or "property damage" arising out of "your products" which are distributed or sold in the regular course of the vendor's business, subject to the following additional exclusions:
- 1) The insurance afforded the vendor does not apply to:
 - a) "Bodily injury" or "property damage" for which the vendor is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that the vendor would have in the absence of the contract or agreement;
 - b) Any express warranty unauthorized by you,
 - c) Any physical or chemical change in the product made intentionally by the vendor,
 - d) Repackaging, unless unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container,
 - e) Any failure to make such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products;
 - f) Demonstration, installation, servicing or repair operations, except such operations performed at the vendor's premises in connection with the sale of the product,
 - g) Products which, after distribution or sale by you, have been labeled or relabeled or used as a container, part or ingredient of any other thing or substance by or for the vendor.
- 2) This insurance does not apply to any insured person or organization:
- a) From whom you have acquired such products, or any ingredient, part or container, entering into, ac-

companying or containing such products, or

b) When liability included within the "products-completed operations hazard" has been excluded under this Coverage Part with respect to such products

(d) Any state or political subdivision with which you have agreed per Paragraph 9.a.(1) above to provide insurance, subject to the following additional provision:

This insurance applies only with respect to the following hazards for which the state or political subdivision has issued a permit in connection with premises you own, rent or control and to which this insurance applies

- 1) The existence, maintenance, repair, construction, erection, or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoist away openings, sidewalk vaults, street banners, or decorations and similar exposures, or
- 2) The construction, erection, or removal of elevators; or
- 3) The ownership, maintenance, or use of any elevators covered by this insurance.

(e) Any state or political subdivision with which you have agreed per Paragraph 9.a.(1) above to provide insurance, subject to the following provisions.

- 1) This insurance applies only with respect to operations performed by you or on your behalf for which the state or political subdivision has issued a permit.

2) This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the state or political subdivision.

(f) Any person or organization with which you have agreed per Paragraph 9.a.(1) above to provide insurance, but only with respect to liability arising out of "your ongoing operations" performed for that additional insured by you or on your behalf. A person or organization's status as an insured under this provision of this endorsement ends when your operations for that insured are completed.

(3) Any insurance provided to an additional insured designated under Paragraph 9.a.(2):

(a) Subparagraphs (e) and (f) does not apply to "bodily injury" or "property damage" included within the "products-completed operations hazard",

(b) Subparagraphs (a), (b), (d), (e) and (f) does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the sole negligence or willful misconduct of the additional insured or their agents, "employees" or any other representative of the additional insured, or

(c) Subparagraph (f) does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of

1) Defects in design furnished by or on behalf of the additional insured, or

2) The rendering of, or failure to render, any professional architectural, engineering or surveying services, including.

a) The preparing, approving or failing to prepare or approve maps,

shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and

b) Supervisory, inspection, architectural or engineering activities.

3) "Your work" for which a consolidated (wrap-up) insurance program has been provided by the primecontractor-project manager or owner of the construction project in which you are involved.

b. Only with regard to insurance provided to an additional insured designated under Paragraph 9.a.(2) Subparagraph (f) above, **SECTION III - LIMITS OF INSURANCE** is amended to include:

The limits applicable to the additional insured are those specified in the written contract or agreement or in the Declarations of this Coverage Part, whichever are less. If no limits are specified in the written contract or agreement, or if there is no written contract or agreement, the limits applicable to the additional insured are those specified in the Declarations of this Coverage Part. The limits of insurance are inclusive of and not in addition to the limits of insurance shown in the Declarations

c. **SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 5. Other Insurance** is hereby amended as follows

Any insurance provided by this endorsement shall be primary to other insurance available to the additional insured except:

(1) As otherwise provided in **SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 5. Other Insurance, b. Excess Insurance**, or

(2) For any other valid and collectible insurance available to the additional insured as an additional insured by attachment of an endorsement to another insurance policy that is written on an excess basis. In such case, the coverage provided under

this endorsement shall also be excess.

10. Broadened Contractual Liability - Work Within 50' of Railroad Property

It is hereby agreed that Paragraph f.(1) of Definition 12, "Insured contract" (**SECTION V - DEFINITIONS**) is deleted

11. Property Damage to Borrowed Equipment

a. The following is hereby added to Exclusion j, **Damage to Property of Paragraph 2., Exclusions of SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY.**

Paragraphs (3) and (4) of this exclusion do not apply to tools or equipment loaned to you, provided they are not being used to perform operations at the time of loss.

b. With respect to the insurance provided by this section of the endorsement, the following additional provisions apply

(1) The Limits of insurance shown in the Declarations are replaced by the limits designated in Section B, **Limits of Insurance, 11.** of this endorsement with respect to coverage provided by this endorsement. These limits are inclusive of and not in addition to the limits being replaced. The Limits of Insurance shown in Section B, **Limits of Insurance, 11.** of this endorsement fix the most we will pay in any one "occurrence" regardless of the number of

(a) Insureds,

(b) Claims made or "suits" brought; or

(c) Persons or organizations making claims or bring "suits".

(2) Deductible Clause

(a) Our obligation to pay damages on your behalf applies only to the amount of damages for each "occurrence" which are in excess of the Deductible amount stated in Section B, **Limits of Insurance, 11.** of this endorsement. The limits of insurance will not be reduced by the application of such Deductible amount

(b) Condition 2. Duties in the Event of Occurrence, Offense, Claim or Suit, applies to each claim or "suit" irrespective of the amount.

(c) We may pay any part or all of the deductible amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the deductible amount as has been paid by us.

12. Employees as Insureds - Specified Health Care Services

It is hereby agreed that Paragraph 2.a.(1)(d) of SECTION II - WHO IS AN INSURED, does not apply to your "employees" who provide professional health care services on your behalf as duly licensed:

- a. Nurses;
- b. Emergency Medical Technicians, or
- c. Paramedics,

in the jurisdiction where an "occurrence" or offense to which this insurance applies takes place.

13. Broadened Notice of Occurrence

Paragraph a. of Condition 2. Duties in the Event of Occurrence, Offense, Claim or Suit (SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS) is hereby deleted and replaced by the following:

a. You must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include.

- (1) How, when and where the "occurrence" or offense took place,
- (2) The names and addresses of any injured persons and witnesses; and
- (3) The nature and location of any injury or damage arising out of the "occurrence" or offense

This requirement applies only when the "occurrence" or offense is known to an "authorized representative".

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ARIZONA AUTOMATIC ADDITIONAL INSURED - WHEN REQUIRED IN CONTRACT OR AGREEMENT WITH YOU - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following.

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. SECTION II - WHO IS AN INSURED, 2. is amended to include

e. Any person or organization, hereinafter referred to as **Additional Insured:**

- (1) Who or which is not specifically named as an additional insured under any other provision of, or endorsement added to, this Coverage Part, and
- (2) For whom you are required to add as an additional insured, except any architect, engineer or surveyor, on a completed operations basis on this Coverage Part

under a written contract or written agreement:

- (1) But only with respect to liability caused, in whole or in part, by "your work" performed for that additional insured by you or on your behalf; and
- (2) If the written contract or written agreement specifies coverage for the additional insured in the "products-completed operation hazard"

With respect to the person(s) or organization(s) referenced in Paragraph **A.2.e.** above, their status as an additional insured under this endorsement will not apply beyond the period of time required in that written construction contract or agreement referred to in Paragraph **A.2.e.** above. If that written construction contract or agreement does not specify a period of time, this coverage will not apply beyond 1 year from the completion of "your work" where the work that caused the "bodily injury" or "property damage" occurred. "Your work" will be deemed completed as specified in Paragraph **a.(2)** of **SECTION V - DEFINITIONS, 19. "Products-completed operations hazard"**.

B. With respect to the additional insureds referenced in Paragraph **A.2.e. above, the following exclusion is added to Paragraph 2. Ex-**

clusions of SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY, this insurance does not apply to "bodily injury" or "property damage" arising out of

1. The rendering of or failure to render any professional services by you or on your behalf, but only with respect to either or both of the following operations
 - a. Providing engineering, architectural or surveying services to others, and
 - b. Providing or hiring independent professionals to provide engineering, architectural or surveying services in connection with the construction work you perform.

Subject to the final paragraph of this exclusion below, professional services include

- a. Preparing, approving or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders, or drawings and specifications; and
- b. Supervisory or inspection activities performed as a part of any architectural or engineering activities

Professional services do not include services within construction means, methods, techniques, sequences and procedures employed by you in connection with construction work you perform.

2. "Your work" for which a consolidated (wrap-up) insurance program has been provided by the prime contractor / project manager or owner of the construction project in which you are involved.
3. "Bodily injury" or "property damage" arising out of "residential construction".

C. SECTION III - LIMITS OF INSURANCE is amended to include

The limits of insurance available to the additional insured(s) will not exceed:

1. Those limits specified in the written construction contract or agreement referred to in Paragraph A.2.e. above; or
2. The Limits of Insurance specified in the Declarations of this Coverage Part;

whichever are less. If no limits are specified in that written construction contract or agreement, the limits available to the additional insured(s) will not exceed the Limits of Insurance specified in the Declarations of this Coverage Part. The limits of insurance available to the additional insured(s) are inclusive of and not in addition to the Limits of Insurance shown in the Declarations.

D. SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS is amended to include the following

AUTOMATIC ADDITIONAL INSURED PROVISION

The written construction contract or agreement referred to in Paragraph A.2.e. above must

1. Be currently in effect or become effective during the term of this Coverage Part; and
2. Have been executed prior to the "bodily injury" or "property damage" to which this endorsement pertains.

E. SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 5. Other Insurance, b. Excess Insurance is amended to include the following

1. Where required by the written construction contract or agreement referred to in Paragraph A.2.e. above, this insurance is primary and / or noncontributory as respects any other insurance policy issued to the additional insured, and such other insurance policy shall be excess and / or

noncontributing, whichever applies, with this insurance.

2. Any insurance provided by this endorsement shall be primary to other insurance available to the additional insured except:

- a. As otherwise provided in **SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 5. Other Insurance, b. Excess Insurance**, or
- b. When other valid and collectible insurance is available to the additional insured

(1) As an additional insured by attachment of an endorsement to another insurance policy; and

(2) On an excess basis.

In such case the coverage provided under this endorsement shall also be excess.

F. SECTION V - DEFINITIONS is amended to include:

1. "Residential construction" means:

- a. A structure where any of the structure's square foot area is used, or is intended, for the purpose of human habitation and includes, but is not limited to, single-family housing, multi-family housing, apartments, condominiums, townhouses, and similar structures intended for human habitation; and
- b. Common areas and appurtenant structures of those structures listed in Paragraph 1.a. above

"Residential construction" does not include:

- a. Hospitals or prisons; and
- b. Military housing, dormitories, long-term care facilities, hotels or motels, provided there is no individual ownership of units.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**PRIMARY / NONCONTRIBUTORY AMENDMENT OF
CONDITIONS FOR DESIGNATED ADDITIONAL
INSUREDS**

This endorsement modifies insurance provided under the following:

**COMMERCIAL GENERAL LIABILITY COVERAGE PART
SCHEDULE**

Name of Person or Organization (Additional Insured):

**ANY ENTITY FOR WHICH THE INSURED IS REQUIRED IN A WRITTEN CONTRACT
TO COVER ON A PRIMARY AND NON CONTRIBUTORY BASIS**

With respect to insurance provided the additional insured shown in the Schedule, **SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS, 5. Other Insurance** is deleted in its entirety and replaced by the following:

5. Other Insurance

If other valid and collectible insurance is available to the additional insured for a loss we cover under Coverages A or B of this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

Where required by a written contract, this insurance is primary and noncontributory as respects any other insurance policy issued to the additional insured. Otherwise, b. below applies.

b. Excess Insurance

This insurance is excess over any of the other insurance available to the additional insured whether primary, excess, contingent or on any other basis.

When this insurance is excess, we will have no duty under Coverages A or B to defend any claim or "suit" that any other insurer has a duty to defend. If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over any other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and self-insured amounts under all that other insurance.

We will share the remaining loss, if any, with any other insurance that was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

c. Method of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED BY CONTRACT

This endorsement modifies insurance provided under the following:

**BUSINESS AUTO COVERAGE FORM
GARAGE COVERAGE FORM**

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Endorsement Effective: 4/30/2014	Policy Number: EPP024827
Named Insured: Viasun Corporation	
Countersigned by	

(Authorized Representative)

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

SECTION II - LIABILITY COVERAGE, A. Coverage, I. Who is an Insured is amended to include as an insured any person or organization with which you have agreed in a valid written contract to provide insurance as is afforded by this policy.

This provision is limited to the scope of the valid written contract

This provision does not apply unless the valid written contract has been executed prior to the "bodily injury" or "property damage".

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BLANKET WAIVER OF SUBROGATION - AUTO

This endorsement modifies insurance provided under the following.

BUSINESS AUTO COVERAGE FORM

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Endorsement Effective: 4/30/2014	Policy Number: EPP024827
Named Insured: ViaSun Corporation	
Countersigned by	

(Authorized Representative)

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

1. Blanket Waiver of Subrogation

SECTION IV - BUSINESS AUTO CONDITIONS, A. Loss Conditions, 5. Transfer of Rights of Recovery Against Others to Us is amended by the addition of the following

We waive any right of recovery we may have against any person or organization because

of payments we make for "bodily injury" or "property damage" arising out of the operation of a covered "auto" when you have assumed liability for such "bodily injury" or "property damage" under an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the "insured contract"

CITY OF GLENDALE, ARIZONA
PUBLIC WORKS/ENGINEERING DEPARTMENT

CONTRACTOR'S AFFIDAVIT
REGARDING
SETTLEMENT OF CLAIMS

PROJECT 131403 - FY2014 PAVEMENT MANAGEMENT PROGRAM, SLURRY SEAL

To the City of Glendale, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the consideration of \$ _____, as set out in the final pay estimate, as full and complete payment under the terms of the contract, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Glendale against any and all liens, claims of liens, suits, actions, damages, charges, costs, litigation expenses, attorneys' fees and any other and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performance and materials furnished for the performance of said installation.

Signed and dated at _____, this ____ day of _____, 20__.

Contractor

By _____

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this ____ day of _____, 20__.

Notary Public

My Commission Expires: _____

SUPPLEMENTAL GENERAL CONDITIONS

1. **GENERAL:** By Ordinance No. 1110 New Series, the City of Glendale adopted the "Uniform Standard Specifications for Public Works Construction," which are sponsored and distributed by the Maricopa Association of Governments. Copies of these documents, with revisions, are on file in the office of the City Engineer of the City of Glendale, and are hereby made a part of these Contract Documents.

Whenever in the Uniform Standard Specifications, the words "The Contracting Agency" are used, the meaning shall be the City of Glendale.

In all cases where ASTM, AASHTO, AWWA, USAG, Federal, City of Phoenix, MAG Specifications, Maricopa County, Arizona State Highway, City of Glendale or other standard specifications are referred to, unless otherwise stated, revisions, supplements or addenda issued on or before the date of this contract, shall prevail. In the event of any conflict between these project specifications and the requirements of the plans, detail drawings, MAG Standard Details and Specifications, these project specifications shall prevail.

2. **DEFINITIONS:** The following terms, as used in or pertaining to the Contract Documents, are defined as follows:

CITY: The word "City" refers to the City of Glendale, Arizona. The official representative of said City in these proceedings shall be the City Engineer.

CONTRACTOR: The word "Contractor" means the person, firm, or corporation with whom the Contract is made by the City.

MATERIALS: The term "Materials" includes, in addition to materials incorporated in the project, equipment and other material used and/or consumed in the performance of the work.

SUBCONTRACTOR: The word "Subcontractor" includes those having a direct contract with the Contractor and those who furnish material worked to a special design according to the plans and/or specifications for this work, but does not include those who merely furnish materials not so worked.

ENGINEER: The word "Engineer" means a person, firm or corporation duly authorized by the City, to act for the City in staking out the work, inspecting materials and construction, and interpreting plans and specifications.

CONTRACT DOCUMENTS: The words "Contract Documents" mean the Notice to Contractors, Information for Bidders, "Uniform Standard Specifications for Public Works Construction," MAG General Conditions, Supplemental General Conditions, Special Provisions, Supplemental Specifications, Proposal, Contract, Payment Bond, Performance Bond, Certificates of Insurance, Plans and Addenda thereto.

3. **PROPOSAL QUANTITIES:** It is expressly understood and agreed by the parties hereto that the quantities of the various classes of work to be done and material to be furnished under this Contract, which have been estimated as stated in the Proposal, are only approximate and are to be used SOLELY for the purpose of comparing, on a consistent basis, the proposals offered for the work under this Contract; and the Contractor further agrees that the City will not be held responsible if any of the quantities shall be found incorrect; and the Contractor will not make any claim for damages or for loss of profits because of a difference between the quantities of the various classes of work as estimated and the work actually done. If any error, omission, or mis-statement is found to occur in the estimated quantities, the same shall not invalidate this Contract or release the Contractor from the execution and completion of the whole or any part of the work in accordance with the specifications and the plans herein mentioned, or for the prices herein agreed upon and fixed therefore, or excuse him from any of the obligations or liabilities hereunder, or entitle him to any damages or compensation except as may be provided for in this Contract.

4. **WITHDRAWAL OF PROPOSALS:** No proposal shall be withdrawn following the opening and reading of the bids for a period of 50 days from the date of opening without the consent of the contracting agency through the body or agent duly authorized to accept or reject the proposal.

5. **LOSSES AND DAMAGES:** All loss or damage arising out of the nature of the work to be done or from the action of the elements, or from any unforeseen circumstances in the prosecution of the same, or from any unusual obstructions or difficulties which may be encountered in and/or during the prosecution of the work, or from any casualty whatsoever of every description, shall be sustained and borne by the Contractor at his own cost and expense except as otherwise provided by the contract documents or the laws of the State of Arizona.

6. **DUST PREVENTION:** The Contractor shall take whatever steps, procedures or means required to prevent abnormal dust conditions due to his construction operations in connection with this contract. The dust control measures shall be maintained at all times during construction of the project, to the satisfaction of the Engineer, in accordance with the requirements of the "Maricopa County Health Department Air Pollution Control Regulations" which have been adopted pursuant to A.R.S. § 36-779.

The Contractor shall be required to obtain the necessary permit from the Maricopa County Air Pollution Control Bureau, 1001 N. Central Ave., Phoenix, Arizona 85004 - telephone (602) 506-6727.

7. **EXCESS MATERIAL:** Excess material shall be removed from the work site and wasted at a location approved by the Engineer. Broken concrete and asphalt may be delivered to the Glendale Sanitary Landfill located at 115th Avenue and Glendale Avenue. The prevailing regulations and fee schedule will not be waived for work under this project. All materials, to be disposed of at the landfill, shall be weighed and disposed of at the prevailing rate.

8. **STOCKPILE OF MATERIALS:** The Contractor may place or stockpile materials in the public right-of-way, if approved by the Engineer, provided they do not prevent access to adjacent properties or prevent compliance with traffic regulations.

Traffic shall not be required to travel over stockpiled materials, and proper dust control shall be maintained.

9. **REFUSE COLLECTION ACCESS:** At any time the project construction shall require the closure or disruption of traffic in any roadway, alley, or refuse collection easement such that normal refuse collection will be interfered with, the Contractor shall, at least 48 hours prior to causing such closure or disruption, make arrangements with the Field Operations Department in order that refuse collection service can be maintained.

10. **CLEAN-UP:** After all work under this contract is completed, the Contractor shall remove all loose concrete, lumber, wire, reinforcing, debris, and other materials not incorporated in the work, from the site of the work. Clean-up shall include the removal of all excess pointing mortar materials within pipes and removal of over-size rocks and boulders left after finish grading. The contractor shall provide for the legal disposal of all waste products, debris, etc., and shall make necessary arrangements for such disposal.

11. **SHOP DRAWINGS:** The Contractor shall provide shop drawings as may be necessary for the prosecution of the work as required by the contract documents. The Engineer shall promptly review all shop drawings. The Engineer's approval of any shop drawing shall not release the Contractor from responsibility for deviations from the contract documents. The approval of any shop drawing which substantially deviates from the requirements of the contract documents shall be evidenced by a change order.

When submitted for the Engineer's review, shop drawings shall bear the contractor's certification that he has reviewed, checked, and approved the shop drawings and that they are in conformance with the requirements of the contract documents.

Portions of the work requiring a shop drawing or sample submission shall not begin until the shop drawing or sample submission has been approved by the Engineer. A copy of each approved shop drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.

12. **PROTECTION OF FINISHED OR PARTIALLY FINISHED WORK:** The Contractor shall properly guard and protect all finished or partially finished work, and shall be responsible for the same until the entire contract is completed and accepted, in writing, by the City. The Contractor shall turn over the entire work in full accordance with the specifications before final settlement shall be made.

13. **STATUS OF EMPLOYEES:** Contractor shall be responsible for assuring the legal working status of its employees and its subcontractor's employees.

14. **LAWS AND REGULATIONS:** This Contract shall be governed by and constructed in accordance with the laws of the State of Arizona. The Contractor shall keep himself fully informed of all existing and future City and County Ordinances and Regulations and State and Federal Laws and Occupational Safety and Health Standards (OSHA) in any manner affecting the work herein specified. He shall at all times observe and comply with said Ordinances, Regulations, or Laws.

15. **PERMITS:** The City has obtained certain required permits which are included in the project specifications, but it will be the duty of the Contractor to determine that all the necessary permits have been obtained. The Contractor shall, at his own expense, obtain all required permits which have not been furnished by the City. A no-fee permit will be issued for work in the City of Glendale right-of-way and easement. (Also see Paragraph 7. Dust Prevention.)

16. **ELECTRIC POWER AND WATER:** The Contractor shall make his own arrangements for electric power and water. Subject to the convenience of the City, he may be permitted to connect to existing facilities where available, but he shall meter and bear the cost of such power or water. Fire hydrant meters may be obtained from the City of Glendale. Installation and removal of meters should be scheduled through the City's Water Services/Utilities Division at 930-2700. For details and current rates, please visit <http://www.glendaleaz.com/CrossConnection/firehydrantmeterprogram.cfm>.

17. **SURVEY CONTROL POINTS AND MONUMENTS:** Existing survey monuments indicated on the plans or found during construction shall be protected by the Contractor, and in the event removal is necessary, removal and replacement shall be performed by permission of the Engineer, under direct supervision of the Engineer or his authorized representative. Survey monuments shall be constructed to conform to the requirements of MAG Specifications, Section 405, and Standard Details.

18. **EXISTING UTILITIES:** The Contractor is hereby advised that the location of all utilities, as shown on the plans, may not be complete nor exact and the Contractor shall satisfy himself as to the exact location of the utilities by contacting Blue Stake or the utility companies before proceeding with the work. After the underground utilities are located by Blue Stake or the utility company, the contractor shall excavate in a careful and prudent manner to prevent unwillful damage to the underground utilities.

In the event the Contractor or its Subcontractor damages an existing, properly identified underground City of Glendale water or sewer line, the Contractor shall be responsible for the repairs at its expense.

The exact location of all existing underground service utilities, whether or not indicated on the plans, shall be determined by the Contractor at no expense to the City, and he shall conduct his work so as to prevent interruption of service or damage to them.

The Contractor shall protect existing utility services and be responsible for their replacement if damaged by him, or to make necessary adjustment in their location, if required, in order to complete the work for his Contract.

Utility companies and other interested parties have been provided with construction plans and the construction schedule for this project. The Contractor shall comply with MAG Specifications 105.6 to cooperate with the utility companies.

19. **MAINTENANCE OF IRRIGATION FACILITIES:** Where irrigation facilities interfere with construction, the Contractor shall remove and replace the affected irrigation facilities to its original condition. Final acceptance of replaced facilities will depend upon final approval of the Engineer.

20. **OVERHEAD UTILITY LINES AND POLES:** Contractor is advised that when work around overhead lines and poles is required on a project the Contractor is required to coordinate with Utility Companies who own and operate overhead lines and poles. The coordination may include, but not be limited to the following activities: pole bracing, de-energizing of lines, and temporary relocations. Contractor is responsible to contact the applicable Utility Company representative and discuss his proposed construction methods; in order to determine what actions the Utility Company must take and the costs related to those actions. The Contractor shall include these costs in the applicable bid items for this project.

The primary and the backup representatives for this review and cost determinations are as follows:

Arizona Public Service:	Mr. Bobby Garza	602-371-7989
Qwest:	Mr. Ron Floyd	602-630-1932
Salt River Project:	Mr. Tim Rinn	602-236-8694
Salt River Project:	Ms. Mariann Ward	602-236-6389
Cox Communications:	Mr. Ron Pint	623-328-3529
Cox Communications:	Ms. Linda Facio	623-328-3500

21. **SOUTHWEST GAS FACILITIES EXPOSED DURING CONSTRUCTION:** The Contractor, upon exposing a gas line during construction, shall call SOUTHWEST GAS at 602-271-4277. The Southwest Gas patrolman will respond, usually within an hour, to inspect the line. Minor cuts or abrasions to the pipe coating will be rewrapped and tracer wire will be reconnected at no cost to the City.

22. **UNDERGROUND UTILITIES' BEDDING:** All water, sewer, storm drain, irrigation and other conduits installed within the City of Glendale shall be bedded from bottom of excavation to one foot above the pipe with granular bedding material meeting the requirements of Section 601.4.6 of MAG Uniform Standard Specifications. The initial bedding under the pipe shall follow City of Glendale Detail G-690.

23. **SEWER SERVICE LINES:** The Contractor shall be responsible for locating, and protecting from damage during construction, all sewer service lines within the project which are not owned by the City. Contractor will be permitted to review the "as-builts" to assist Contractor in locating the non-City owned sewer service lines. These "as-builts" were prepared, and supplied to the City, by private developers or contractors who installed the non-City owned sewer service lines. Therefore, the City does not guarantee or warranty the accuracy of such "as-builts" and the contractor, as a condition for being allowed to review such "as-builts", hereby agrees to hold the City harmless for any and all damages or other expenses contractor may incur as a result of any inaccuracies or incorrect information in these "as-builts".

24. **RIGHTS-OF-WAY:** The City will provide rights-of-way and easements for all work specified in this Contract, and the Contractor shall not enter or occupy with man, tools, equipment or materials any private ground outside the property of the City of Glendale, Maricopa County, Arizona, without the consent of the property owner.

25. **SUBCONTRACTS:** Subcontracts shall be in accordance with, and the Contractor shall be bound by, the following provisions:

All subcontracts shall be subject to the approval of the City.

All subcontracts shall be in writing and shall provide that all work to be performed thereunder shall be performed in accordance with the terms of the Contract.

Certified copies of any and all subcontracts shall be furnished to the City Engineering Department; however, prices may be omitted.

Subcontracts shall conform to the regulations governing employment of labor.

The subcontracting of any part of the work will in no way relieve the Contractor of his responsibility under the Contract.

26. PRE-CONSTRUCTION CONFERENCE: After completion of the Contract Documents, to include bonds, insurance and signatures, and prior to the commencement of any work on the project, the Engineer will schedule a Pre-Construction Conference. This will be held at the City of Glendale, 5850 West Glendale Avenue, Glendale, Arizona.

The purpose of this Conference is to establish a working relationship between the Contractor, Utility Companies, and the Engineer. The agenda will include critical elements of the construction schedule, procedures for handling shop drawings and other submittals, cost breakdown of major lump sum items, payment application and processing, coordination with the involved utility companies, emergency telephone numbers for all representatives involved in the course of construction, and establishment of the Notice to Proceed date.

Minimum attendance by the Contractor shall be a responsible official of the company/corporation, who is authorized to execute and sign documents on behalf of the company/corporation.

27. OVERTIME:

Regular Work Hours: The work required to be performed by the Plans and Specifications for the Project shall be performed only during regular working hours, unless the City has authorized overtime work in accordance with the procedures set forth below. Regular working hours shall be defined as one 8-1/2 hour shift per day, Monday through Friday, or, upon prior approval of the City, one 10-1/2 hour shift per day on a compressed four day work week during Monday through Friday. Regular working hours shall not include Saturdays, Sundays or City recognized legal holidays.

Authorization and Costs: If the Contractor desires to schedule work for times other than regular work hours (overtime), the Contractor shall make a written request to the City at least two business days prior to the scheduled overtime. The City reserves the right to deny the request to work overtime based on the best interest and needs of the City. If an overtime request is denied, the City may, at its sole discretion, extend the contract time at no additional costs to the City.

In the event the Contractor does perform work overtime, with or without the prior approval of the City, the Contractor shall be responsible to the City for all additional costs that may be incurred by the City as a result of the Contractor's overtime work, including costs for engineering, inspections, testing, surveying and construction administration, all in accordance with MAG Section 108.5. However, the Contractor shall not be responsible for City's costs incurred as a result of overtime work requested by the City or overtime work resulting from an emergency which is not the responsibility of the Contractor or its employees, subcontractors or suppliers. The City's cost will be billed directly to the Contractor or may, at the City's option, be deducted from monies due the Contractor.

28. CONTRACTOR'S CONSTRUCTION SCHEDULE: Concurrently, with the execution of the contract and prior to the pre construction conference, the Contractor shall submit a preliminary schedule for the Engineer's review and acceptance. The schedule shall be in sufficient detail to allow the Engineer to determine if the proposed schedule will conform to an acceptable program of construction operations, as determined by the contracting agency. Within ten calendar days after the preliminary schedule, described above, has been accepted by the Engineer, the Contractor shall submit a progress schedule, utilizing the critical path method scheduling technique, showing the order in which he proposes to carry out the work, the dates on which he will start each phase of the work, and

the contemplated date for completion of each phase. The Contractor shall not be permitted to commence construction until the schedule complying with this paragraph has been submitted to the City. The Contractor will not be granted any extension to the contract time or compensation for any damages as a result of the City's refusal to allow Contractor to commence construction until the critical path method progress schedule has been submitted and accepted by the Engineer.

The critical path method (CPM) scheduling technique requires a breakdown of the entire work into individual tasks and an analysis of the number of days required to perform each task. The schedule submitted to the City should highlight and identify the critical path for the project. After the work is in progress, the Contractor shall submit supplementary progress schedules, using the critical path method technique, of the progress to date and projection for completion. The supplementary progress schedules shall be submitted with each pay request in accordance with the paragraph, "Payments to Contractors," of these Supplemental General Conditions. The progress schedules shall be subject to the acceptance of the Engineer. In the event the Contractor fails to submit a supplementary progress schedule acceptable to the Engineer, the City may withhold further progress payments to the Contractor until the Contractor submits an acceptable supplementary progress schedule, which is accepted by the Engineer, to the City. Schedule changes requiring an increase in the City's engineering personnel on the project shall not be put into effect until the Engineer has approved such increase and made arrangements for the required additional personnel.

29. CHARACTER OF WORKMEN: None but skilled foremen and workmen shall be employed on work requiring special qualifications. When required by the Engineer, the Contractor shall discharge any person who is, in the opinion of the Engineer, disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable. The Contractor shall keep the City harmless from damages or claims for compensation that may occur in the enforcement of this section of the specifications.

30. HINDRANCES AND DELAYS: Except as otherwise provided herein, no charge shall be made by the Contractor for hindrances or delays from any cause during the progress of the work embraced in this Contract; but such delays, if due to no fault or neglect of the Contractor, shall entitle the Contractor to an extension of time allowed for completing the work, sufficient to compensate for the delay, the amount of the delay to be determined by the Engineer, provided the Contractor shall give said Engineer immediate notice in writing of the cause of such delay.

30.1 Delay: In the event of a delay for which the City is solely responsible, which is unreasonable under the circumstances and which was not within the contemplation of City and Contractor at the time this Contract is executed, City and Contractor shall negotiate, in good faith, a payment by the City to Contractor for the expenses incurred by Contractor as a result of such delay, in accordance with the City of Glendale Engineering Department's POLICY STATEMENT FOR CALCULATING DELAYS AND DAMAGES. This provision shall not be construed to void any provision in the contract which requires notice of delay or provides for liquidated damages. However, if the delay is the result of any act or neglect of a third party, including the architect, engineer or other contractor employed by the City, or by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably foreseeable, unavoidable casualties, or any causes beyond the Contractor's control, the Contractor shall not be entitled to any payments or compensation for expenses incurred as a result of such delay, but the Contract Time shall be extended by Change Order for such reasonable time as the Engineer may determine. No extension or compensation will be granted for any delay which is the result, wholly or partially, of any act or neglect of Contractor or any Subcontractor hired by Contractor.

31. LIQUIDATED DAMAGES:

31.1 Should the contractor fail to substantially complete the work under this contract within the time for completion stated in the paragraph "Time of Completion," in the Information for Bidders, then the contractor shall pay the City of Glendale, Arizona, liquidated damages, pursuant to the provisions of Section 108.9, Standard Specifications for Public Works Construction, Maricopa Association of Governments, until the work is substantially complete.

31.2 Should the contractor fail to fully and finally complete the work under this contract within the time for completion set forth in the paragraph "Time of Completion," in the Information for Bidders, even though the contractor has achieved substantial completion of the work within such time, then the contractor shall pay the City of Glendale, liquidated damages (pursuant to the provisions of Section 108.9, Standard Specifications for Public Works Construction, Maricopa Association of Governments), in an amount equal to 100% of the applicable liquidated damage rate set forth in MAG Section 108.9 for each and every calendar day of delay until the work is fully and finally complete and accepted.

31.3 The date of substantial completion shall be the date when the work is sufficiently complete, in accordance with the contract documents, so the owner can fully occupy and utilize the work or designated portion thereof for the use for which it is intended, with all the project's parts and systems operable as required by the contract documents and all the work is complete, accessible, operable, and usable by the owner for its intended purpose(s), and all parts, systems and sitework are 100% complete and cleaned for the owner's use. Only incidental corrective work and final cleaning (if required), beyond cleaning needed for the owner's full use, may remain for final completion.

31.4 Full and final completion shall be that date when all work under the project, including incidental corrective work under punch list and final cleaning, has been completed and the entire project is accepted by the owner.

32. **PAYMENTS TO CONTRACTOR:** The measurements of quantities and the payments to the Contractor shall be in accordance with MAG Uniform Standard Specifications for Public Works Construction, Part 100 - General Conditions, Section 109 - Measurements and Payments.

Payments will be made on the basis of itemized, monthly statements prepared by the City and signed by the Contractor. The Contractor shall submit an itemized, duly certified and approved estimate for work completed through the last day of the preceding month in accordance with MAG Specifications, as amended by these Supplemental General Conditions. Upon approval of the pay estimate, the City will mail the check directly to the Contractor.

The pay estimate shall be accompanied by an updated progress schedule as required by these Supplemental General Conditions and a cash flow report when required by the Special Provisions. Approval of progress payments shall be conditional upon submittal of progress schedules and cash flow reports, when required, which are acceptable to the Engineer.

Upon 100% completion and acceptance of the project, and with the request for final payment, the Contractor shall complete and submit the "Contractor's Affidavit Regarding Settlement of Claims" form which is included in these specifications. Before final payment and release of retention, Contractor must arrange for its Surety to provide the City with a fully executed AIA Consent of Surety form. To avoid delays in the final payment, the Surety may send the Consent of Surety directly to the City via fax at (623) 915-2861, and mail the original to the City of Glendale Engineering Department, 5850 West Glendale Avenue, Glendale, Arizona 85301. Should any ambiguity arise between the Contract and these Conditions, the provisions of the Contract shall prevail.

33. **WARRANTY:** This project shall have a 2 year warranty. The warranty period shall begin upon final acceptance of the work by the City of Glendale.

END OF SUPPLEMENTAL GENERAL CONDITIONS

SPECIAL PROVISIONS

1. **SCOPE OF WORK:** Project includes approximately 6 miles of slurry seal, 650,000 linear feet of crack seal, approximately 2 miles of micro-seal, and approximately 1,600 square yards of asphalt repairs.

2. **DEFINITIONS:**

A. **Section:** Reference to a Section on the plans or in these Specifications shall mean a Section of the Uniform Standard Specifications for Public Works Construction, sponsored and distributed by Maricopa Association of Governments (MAG), latest revision. The provisions of MAG Uniform Standard Specifications and Details for Public Works Construction, which are not altered or modified by the drawings or by these Special Provisions or by any subsequently issued Addendum, shall apply to the contract even though the Contractor's attention is not specifically drawn to such provisions.

B. **Standard Detail:** Reference to a MAG Standard Detail (MAG S.D.) on the plans or in these specifications shall mean a standard detail drawing in the latest revision of the Uniform Standard Specifications for Public Works Construction, sponsored and distributed by Maricopa Association of Governments. City of Glendale Standard Detail (C.O.G. S.D.) shall mean a standard detail drawing in the City of Glendale's Engineering Design and Construction Standards, latest revision. City of Phoenix Standard Detail (C.O.P. S.D.) shall mean a standard detail drawing in the Phoenix Supplemental Standard Details for Public Works Construction, latest revision.

3. **CONSTRUCTION SURVEYING AND LAYOUT:** The work under this item shall consist of furnishing all materials, personnel, equipment, and traffic control necessary to perform all surveying, staking, and verification of the accuracy of all control points per the plans and as directed by the Engineer. Included in this work shall be all calculations required for the satisfactory completion of the project in conformance with the plans and these Special Provisions. The work shall be done under the direction of a registered professional engineer or a registered land surveyor employed by the Contractor. The crew chief shall be NICET Certified Level III or a registered land surveyor. The Contractor shall furnish all equipment, materials and other devices necessary for establishing, checking, marking and maintaining points, lines, grades and layouts.

Throughout the work, the Contractor shall set all stakes including, but not limited to; centerline stakes; offset stakes; reference point stakes; slope stakes; pavement lines, curb lines and grade stakes at intervals not greater than 25 feet; stakes for sewers, roadway drainage, pipe, under drains, clearing, paved gutter, fence, right of way markers, and survey monuments; blue tops of subgrade, subbase and base courses at intervals not greater than 50 feet; permanent as-built elevation marks; and all other horizontal or vertical controls necessary for complete and accurate layout and construction of the work. Stakes for horizontal and vertical curves shall be set at intervals appropriate for the length of curve. The coordinates of any new control points established by the Contractor during the course of the work shall be given to the Engineer within five working days of control point establishment.

Field notes shall be kept in standard field notebooks furnished by the Contractor. Field notes shall be kept in a clear, orderly and neat manner consistent with standard surveying practices. The standard field notebooks or copies of, shall be made available to the Engineer upon request at any time during the prosecution of the work.

When utility adjustments are a part of the contract, the Contractor shall perform all layout work and set all control points, stakes and references necessary for carrying out all such adjustments.

The Contractor shall cross-section all fill areas for monthly, quantity estimates and as directed by the Engineer. The Engineer may verify the accuracy of same. The Engineer shall check all measurements that involve determination of final quantities.

Any errors, omissions or discrepancies in the project plans shall be immediately brought to the attention of the Engineer. The Contractor shall promptly notify the Engineer in writing, explaining the problem in detail. The Engineer will advise the Contractor within three working days of any corrective actions deemed necessary. No changes in the project plans will be allowed without the approval of the Engineer.

The Contractor shall be compensated for additional work associated with survey and layout when:

- A. The project plans do not provide sufficient information and new calculations must be performed.
- B. The Contractor performs survey work based on erroneous plan information, which results in the duplication of work.
- C. Changes by the Engineer to the plan information for which the Contractor has already performed the work and results in the duplication of such work.

The Contractor shall not be due compensation for any survey work when:

- A. Information provided on the plans is sufficiently complete to allow any additional information necessary for the complete layout of the work to be routinely calculated.
- B. The Contractor fails to inform the Engineer of discovered plan errors before the performance of any extra survey work.
- C. Work is included in any other pay item.

The Contractor shall inform the Engineer in a timely manner of any omissions, ambiguities, or errors which the Contractor feels may result in extra calculations or survey work, so as not to delay the project or create any unnecessary calculations.

All additional survey work shall be documented by the Contractor and verified by the Engineer before compensation may be granted. Documentation shall consist of a detailed diary specifically addressing the work involved in the alleged problem area. The Contractor may be required to provide calculations, charts, graphs, drawings, or any other physical evidence, which will verify additional work.

The Contractor shall be responsible for verifying curb and gutter grades before placement of concrete using a steel straightedge, string line or other method approved by the Engineer. The field verification shall be performed in the presence of the Engineer or designated representative.

The Engineer reserves the right to make inspections and random checks of the staking and layout. Inspection or acceptance of all or any part of the Contractor's staking and layout by the Engineer does not relieve the Contractor of full responsibility to secure the proper dimensions, grades and elevations of the work.

If, in the Engineer's opinion, the work is not being performed in a manner that will assure proper controls and accuracy, the Engineer will order any or all of the staking and layout work redone at no additional cost to the City. If any portion of the Contractor's staking and layout work is ordered redone and requires additional rechecking by the Engineer, the City shall be reimbursed for all costs

for such additional checking. The amount of such costs will be deducted from the Contractor's monthly estimate.

The Contractor shall provide final "as-constructed" field surveying, including both vertical and horizontal data based on the finished work. The Contractor shall also furnish final Record Drawings for all improvements. The Record Drawings shall be prepared by a Registered Land Surveyor and submitted to the Owner for approval prior to final acceptance of the project. The Record Drawings shall be prepared on a set of reproducible copies of the construction plans. The completed drawings shall be signed and sealed by the Registered Land Surveyor responsible for obtaining the As-built information and preparing the Record Drawings.

All survey field books and documentation shall be available for inspection by the Engineer.

Payment for this item will be made at the contract lump sum price fully complete for **CONSTRUCTION SURVEYING AND LAYOUT.**

4. **SUSPENSION OF WORK:** The Engineer reserves the right to suspend the work wholly or in part if deemed necessary for the best interest of the City. This suspension will be without compensation to the Contractor, other than to adjust the contract time in accordance with MAG Section 108.

5. **COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS:** In all instances wherein the item and/or specifications require installation or construction in accordance with either manufacturer's or supplier's recommendations and/or instructions, said recommendations and/or instructions shall be submitted with the applicable portions clearly marked for approval prior to the commencement of work on that item or portion of the contract.

6. **TRAFFIC REGULATIONS:**

6.1 All traffic affected by this construction shall be regulated in accordance with the City of Phoenix "Traffic Barricade Manual," the "Manual of Uniform Traffic Control Devices" and these Special Provisions. The following traffic restrictions are minimum requirements throughout the construction period:

6.1.1 All references in the City of Phoenix "Traffic Barricade Manual" and the "Manual of Uniform Traffic Control Devices" to "arterial" and/or "collector" streets shall mean "arterial and/or major arterial" streets and are referred to as "major" streets in the following sections.

6.1.2 A minimum of two travel lanes (one for each direction) shall be maintained open to traffic at all times on all major streets. All work that enters or crosses a major street must be done at times other than 6:00 a.m. to 8:30 a.m., and 4:00 p.m. to 6:00 p.m. unless approved by the Transportation Director or Designee.

6.1.3 A travel lane shall be defined as ten (10) feet of roadway not obstructed by traffic control devices with a safe motor vehicle operating speed of twenty-five (25) miles per hour.

6.1.4 A travel lane will not be considered as open to traffic until it has been graded reasonably smooth and is paved with a minimum of two (2) inches of asphalt. This shall be considered temporary pavement and shall be removed completely before proceeding with final surfacing.

6.1.5 The Contractor shall provide and maintain all required and requested traffic control devices to protect and guide traffic for all work in the construction area.

- 6.1.6 Intersection area shall be defined as all of the area within the right-of-way of intersecting streets, plus two-hundred fifty (250) feet beyond the center of the intersected streets on all legs of the intersection.
- 6.1.7 The Contractor shall maintain all existing traffic signs erect, clean and in full view of the intended traffic at all times. Street name signs at major street intersections shall be maintained erect at all times. If any signs interfere with construction, the Contractor shall notify the Transportation Department at least 48 hours in advance before covering or removing said signage. The Contractor shall be responsible for reinstalling all signs removed or covered and verifying they are correctly placed. The Transportation Department will inspect all signage prior to completion of the project.
- 6.1.8 Local access to all properties on the subject project shall be maintained at all possible times in the form of a safe and reasonable direct route to at least one of the above defined major streets. Whenever local access cannot be maintained, the Contractor shall notify the affected property owner or user and the Engineer at least Seventy-Two (72) hours in advance.
- 6.1.9 The Contractor shall be required to provide a uniformed off-duty City of Glendale police officer to assist with traffic control whenever traffic in any one direction is restricted to one lane at a signalized major intersection or at other locations if it should become necessary in the opinion of the Transportation Director or Designee. If the Contractor chooses to use a police officer at other locations during peak traffic hours or to assist with his other traffic control operations, the cost shall be included in the lump sum for "Traffic Control" and not paid out of the hours allowed for "Off Duty Glendale Police Officer." All requests for off-duty officers will be made through the Glendale Police Department, Off-Duty Work Administrator. The Contractor must provide evidence of workmen's compensation coverage before any officer will be permitted to work.

Measurement for payment of the uniformed off-duty Glendale police officer hours will be made by the actual number of man-hours used for traffic control at signalized major intersections or as approved by the Engineer. Because the quantity of hours is dependent on the Contractors schedule of activities, the unit price bid for this item will be administered as a contingency bid item and any adjustment in hours will not be subject to the 20 percent limitation.

Payment for the off-duty Glendale police officer will be made at the contract unit price bid per hour for OFF DUTY GLENDALE POLICE OFFICER and shall include the net hourly rate of \$35.00 per police officer with a three (3) hour minimum. The net hourly rate shall be increased to include withholding for Federal, State, FICA, Medicare, Workmen's Compensation insurance and any payroll administrative costs.

- 6.1.10 The Contractor shall prepare a traffic control plan for the project and submit it to the City Transportation Director or Designee for review and approval at least fifteen (15) working days prior to the start of construction. The traffic control plan must be submitted through the City of Glendale on-Line Traffic Control Plan application process at www.glendaleaz.com/transportation/TrafficControlForm.cfm. The traffic control plan shall include message boards installed a minimum of seven (7) working days prior to restrictions when requested by the Transportation Director or Designee, additional public notification shall be required for major restrictions that impact adjacent stakeholders. Any changes to the traffic control plan during construction shall be submitted to the City Transportation Director or Designee for approval at least seventy-two (72) hours before implementation.

Payment for this item shall be made at the contract lump sum price for TRAFFIC CONTROL.

- 6.1.11 It is the City's desire to maintain one lane of traffic in each direction on minor streets whenever possible. Should it become imperative for the Contractor to close off a portion

of any minor street or reduce the travel way to a single lane, he/she must obtain approval from the City Transportation Director or Designee Seventy-Two (72) hours prior to implementing a traffic control change. He/she must provide all the necessary signs to detour traffic and/or flag person to control traffic for a single lane. The maximum amount of time that the street may be closed is from 9:00 a.m. until 4:00 p.m.

6.1.12 **Flagger Requirements:** All flaggers shall be properly trained and certified by a recognized source, such as the American Traffic Safety Services Association (ATSSA) or National Safety Council, and shall carry with them at all times proof that training and certification requirements have been completed within the last two years.

7. **ENERGIZED AERIAL ELECTRICAL POWER LINES:** The utility company maintains energized aerial electrical power lines in the immediate vicinity of this project. Do not consider these lines to be insulated. Construction personnel working in proximity to these lines are exposed to an extreme hazard from electrical shock. Contractors, their employees, and all other construction personnel working on this project must be warned of the danger and instructed to take adequate protective measures, including maintaining a minimum ten (10) feet clearance between the lines and all construction equipment and personnel. (See: OSHA Standard 1926.550(a)15.) As an additional safety precaution, Contractors should also be instructed to call the utility company to arrange, if possible, to have these lines de-energized or relocated when the work reaches their immediate vicinity. The cost of such temporary arrangements would be borne by the Contractor. The utility company can often respond to such requests if two days advance notice is given, but some situations may require up to sixty (60) days lead time for relocation or other arrangements.

8. **CONCRETE GUTTER WATER TESTING:** The MAG Uniform Standard Specifications, Section 340.3, **CONSTRUCTION METHODS**, shall be modified as follows: The 1/2 inch referenced in Paragraph 16 beginning, "When required by the Engineer, gutter having a slope of 0.8 foot...", shall be changed to 1/4 inch.

9. **RECORD DRAWINGS:** The Contractor shall maintain one set of contract drawings with all changes, deviations, additions and deletions clearly marked thereon. Upon completion of the work, this set of drawings, shall be marked "RECORD DRAWINGS," dated, and delivered to the Engineer prior to approval of the Contractor's final payment request.

10. **CONSTRUCTION MATERIALS SAMPLING AND TESTING:** The contractor, at their expense, shall provide adequate personnel for construction materials sampling and testing functions as required by the City of Glendale. Proof of certifications of the following requirements shall be provided to the City of Glendale prior to commencement of construction:

- A. **LABORATORY TESTING SERVICES:** Construction materials testing laboratories must meet the following requirements in order to perform laboratory testing on construction materials samples:
 - a. Possess and maintain current AASHTO accreditation (including R18) provided by the AASHTO Materials Reference Laboratory (AMRL), and Cement and Concrete Reference Laboratory (CCRL) in any test methods performed and be currently participating in their respective proficiency programs.
 - b. Concrete strength testing must be performed by a technician currently certified by the American Concrete Institute (ACI) as a "Concrete Strength Testing Technician".
- B. **FIELD TESTING AND SAMPLING SERVICES:** Field technicians shall be employed by the construction materials testing laboratory noted above and have current "*Field Technician Certification*" from the Arizona Technical Testing Institute (ATTI) and current "*Concrete Field Testing Technician – Grade I*" certification from the American Concrete Institute.

- C. TESTING FREQUENCIES: Laboratory and field testing and sampling shall adhere to the current City of Glendale minimum frequencies (see tables below) formal documentation, records etc. shall be provided to the City in a timely manner and as part of required project documentation for overall project acceptance. The City reserves the right to utilize independent / additional testing to confirm prior results.

Payment for this item will be made at the contract lump sum price fully complete for CONSTRUCTION MATERIALS SAMPLING AND TESTING.

CITY OF GLENDALE - CONSTRUCTION ENGINEERING				
MATERIALS TESTING SECTION				
ASPHALTIC CONCRETE MINIMUM SAMPLING AND TESTING FREQUENCY				
TYPE OF SAMPLE	REQUIRED TEST(S)	TEST METHOD DESIGNATION	MINIMUM SAMPLE FREQUENCY	MINIMUM SIZE OF SAMPLE
COLD FEED AGGREGATE OR COMBINED HOT-BIN AGGREGATE SAMPLES	SIEVE ANALYSIS	A.S.T.M. C - 136	1 - EVERY 500 TONS	25Kg
	SAND EQUIVALENT	A.S.T.M. D - 2419	1 - PER DAY	10Kg
	SPECIFIC GRAVITY (COARSE & FINE)	A.S.T.M. C-127 / C-128	1 - PER DAY	12Kg
	SIEVE ANALYSIS	A.S.T.M. C - 136	1 - PER EACH ADDITIONAL 500 TONS PRODUCED	25Kg
UNCOMPACTED ASPHALTIC CONCRETE MIXTURE	IGNITION-GRADATION	ARIZ.427	1 - PER FIRST 500 TONS PER DAY	9 Kg
	GYRATORY COMPACTION	AASHTO TP4	1 - PER FIRST 500 TONS PER DAY	9 Kg
	MAX. THEORETICAL SPECIFIC GRAVITY	A.S.T.M. D - 2041	1 - PER FIRST 500 TONS PER DAY	7 Kg
	IGNITION-GRADATION	ARIZ 427	1 - PER EACH ADDITIONAL 500 TONS PRODUCED	9 Kg
	MARSHAL COMPACTION	ASTM D-6926/DC927	1 - PER FIRST 500 TONS PER DAY	9 Kg
COMPACTED ASPHALTIC CONCRETE MIXTURE	NUCLEAR DENSITY	A.S.T.M. D - 2950	1 - PER 750 LINEAR FT PER PASS OR RIBBON	N/A
	SPECIFIC GRAVITY BY CORE SAMPLE	A.S.T.M. D - 2726	1 - PER 750 LINEAR FT PER PASS OR RIBBON	N/A

revised 1/07/2013

City of Glendale				
Minimum Construction Materials Field Testing Frequency				
Type of Material	Type of Structure	Minimum Test Frequency	Minimum Test Requirement	Test Method
Native In-Situ	Curb, Gutter & Sidewalk	1-per 500 lin ft.	90% & +2 -4% of optimum moisture	ASTM D-598 / D-2922
Native In-Situ	Roadway Subgrade	1-per 500 lin.ft	95% & +2 -4% of optimum moisture	ASTM D-698 / D-2922
Native In-Situ	Trench Backfill	1-per 500 lin ft. per 1 ft. lift	95% & +2 -4% of optimum moisture	ASTM D-698 / D-2922
Native In-Situ	Structural Fill	1-per lift	95% & +2 -4% of optimum moisture	ASTM D-698 / D-2922
Native In-Situ	Driveways, Aprons, Valley Gutters	1-per structure	95% & +2 -4% of optimum moisture	ASTM D-698 / D-2922
Aggregate Base	Pipe Bedding	1-per 500 lin ft.	95%	ASTM D-698 / D-2922
Aggregate Base	Curb, Gutter & Sidewalk	1-per 500 lin.ft.	95%	ASTM D-698 / D-2922
Aggregate Base	Roadway Base	1-per 500 lin ft.	100%	ASTM D-698 / D-2922
Aggregate Base	Structural Fill	1-per lift	95%	ASTM D-698 / D-2922
Concrete	Curb, Gutter, Sidewalk, Driveways	1 set per 50 yards or 10 days pour	1 set of (4) 4X9 Cylinders	ASTM C-77 / C-172
Asphaltic Concrete	Roadway (Arterial)	1-per 750 lin.ft. per pass	92% - Nuclear Density	ASTM D-2922 / D-2041
Asphaltic Concrete	Roadway (Arterial)	1-per 750 lin.ft. per pass	92% - Core Density	ASTM D-2726
Asphaltic Concrete	Roadway (Residential)	1-per 750 lin ft. per pass	95% - Marshall Density	ASTM D-6926/D2927
Asphaltic Concrete	Roadway (Residential)	1-per 750 lin ft. per pass	95% - Core Density	ASTM D-2726
Asphaltic Concrete	Roadway	1 Sample per 500 tons	Uncompacted Field Sample	AC Laboratory Tests*

NOTE: This table is based on the approximate minimum number of tests to be performed and requirements may be increased depending on site conditions or other circumstances at the discretion of the City of Glendale.

* All Asphaltic Concrete Laboratory Tests are covered on another sheet provided upon request.

Revised 07/2016

11. **CASH FLOW REPORT:** The Contractor shall prepare a Cash Flow Report for projected monthly project cash flow on a City provided form and submit it for approval prior to issuance of the Notice to Proceed. The accumulation of monthly pay estimate costs shall be plotted versus time in accordance with the proposed construction schedule. After approval, the Contractor shall submit an updated Cash Flow Report prior to the receipt of each Progress Payment. Each updated Cash Flow Report shall reflect the Contractor's actual monthly payment versus the actual elapsed contract time.

At the City's request, if the projected quarterly project cash flow varies by more than ten percent of the total contract price, the Contractor shall prepare a revised Cash Flow Report. Each revised Cash Flow Report is subject to approval by the City prior to issuance of the progress payment.

Revisions to the report resulting from Contractor initiated delays or work schedule changes shall be at no cost to the City. Any revisions required by City initiated delays or changes to the work shall be paid as an integral part of the approved Change Order.

12. **CONSTRUCTION SIGN:** The project type to be indicated on the sign shall be 131403 - FY2014 PAVEMENT MANAGEMENT PROGRAM, SLURRY SEAL .

13. ALLOWANCE FOR CONSTRUCTION CONTINGENCIES: Bid schedule includes a lump sum contingency allowance. This allowance is at all times the property of the City and is for the sole purpose of reimbursing Contractor for any unforeseen work not apparent at the time of bidding or additional work requested by the CITY OF GLENDALE.

No work anticipated for reimbursement under this Bid Item shall be initiated by Contractor until Contractor, City of Glendale Representative and City of Glendale agree on the scope and cost to perform the additional work. The Contractor shall prepare and submit to City of Glendale Representative a cost itemization and summary for the additional work. City of Glendale Representative and City of Glendale shall review and approve prior to Contractor proceeding with any additional work. Any portion of the stated sum not expended remains the property of the City of Glendale.

Work under this section shall consist of any additional work identified by the owner and contractor due to construction activity. All work under this item shall be itemized as per MAG requirements and deducted from the set amount of \$80,000. All work under this section shall include but is not limited to all necessary materials, tools, layout, survey and labor required to complete each task.

Measurement and payment for this item shall be made on an individual basis per task and as described above. Limit for this item is set at \$80,000 on the bid form, under line item ALLOWANCE FOR CONSTRUCTION CONTINGENCY.

END OF SPECIAL PROVISIONS



City of Phoenix
EQUAL OPPORTUNITY DEPARTMENT

Viasun Corporation

IS HEREIN GRANTED

**SMALL BUSINESS ENTERPRISE (SBE)
CERTIFICATION**

In the Area(s) of

Commercial & Residential Asphalt Paving & Maintenance, Repair Grading

Certification Eligibility: May 20, 2013 – May 20, 2018

This certification is valid through the above date provided this firm meets the on going programmatic standards and fulfils the annual update requirement to remain in good standing as a SBE

A handwritten signature in black ink, appearing to read "L. Lyons".

**Lionel D. Lyons, Equal Opportunity Director
City of Phoenix Equal Opportunity Department**



City of Phoenix

Arizona Unified Certification Program

This is to certify that
under Title 49, Part 26 of the Code of Federal Regulations, and
under the State of Arizona Unified Certification Program (AZUCP)

Viasun Corporations

a certified Disadvantaged Business Enterprise (DBE) in the following specialty/specialties:

Commercial & Residential Asphalt Paving & Maintenance, Repair Grading

Certification Eligibility: May 20, 2013 – May 20, 2018

This certification is valid through the above date provided this firm meets the on-going programmatic standards and fulfills the annual update requirement to remain in good standing as a DBE.

Lionel D. Lyons, Equal Opportunity Director
City of Phoenix Equal Opportunity Department

Date: October 14, 2013

Project Life Cycle Cash Flow Schedule



Project No.: _____ Date: _____

Project Name: _____

Company Name: _____

Project Start Date: _____ Project Completion Date: _____

Original Updated Revised

Qtr.	Fiscal Yr.	Estimated		Actual	
		Amount	Accum.	Amount	Accum.
1st	07/13 - 09/13				
2nd	10/13 - 12/13				
3rd	01/14- 03-14				
4th	04/14 - 06/14				
1st	07/15 - 09/15				
2nd	10/15 - 12/15				
3rd	01/16- 03/16				
4th	04/16- 06/16				
1st	07/16 - 09/16				
2nd	10/16 - 12/16				
3rd	01/17 - 03/17				
4th	04/17 - 06/17				
1st	07/17 - 09/17				
2nd	10/17 - 12/17				
3rd	01/18 - 03/18				
4th	04/18 06/18				
1st	07/19 - 09/19				
2nd	10/19 - 12/19				
3rd	01/20- 03/20				
4th	04/20- 06/20				
Totals		\$ -	\$ -	\$ -	\$ -

* COG's fiscal year is July 1, (current year) through June 30, (following year)

For Engineering Use Only:	
Account No: _____	PO No. _____

Slurry Seal

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In the SUPPLEMENTAL SPECIAL CONDITIONS, Page SP-30, Mixing Equipment: ADD – the following paragraphs:

The machine shall be specifically designed and manufactured to apply microseal. The material shall be mixed by an automatic-sequenced, self-propelled micro-surfacing mixing machine. It shall be a continuous-flow mixing unit that accurately delivers and proportions the mix components through a revolving multi-blade, double-shafted mixer. Sufficient storage capacity for all mix components is required to maintain an adequate supply to the proportioning controls.

The machine shall be equipped to provide the operator with full control of the forward and reverse speeds during application. It shall be equipped with opposite-side driver stations to assist in alignment. The loading device, opposite-side driver stations, and forward and reverse speed controls shall be of original equipment-manufacturer design.

In the SUPPLEMENTAL SPECIAL CONDITIONS, Page SP-32, Mixing and Application: ADD – the following sentence:

The rate for the application of the Type III Micro Seal material shall be 30 lbs/sy

In the SUPPLEMENTAL SPECIAL CONDITIONS, Page SP-38 - 39, General: ADD – the following paragraph:

Initial pavement markings shall be temporary water-based paint, of the color, size and symbols as indicated in the Revised Bid Schedule. Measurement and payment will be made in accordance with the unit prices as set forth in the Revised Bid Schedule. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents.

Project No. 131403
City of Glendale Slurry Seal
SPECIAL PROVISIONS

PART A: SUPPLEMENTAL SPECIAL CONDITIONS

The City of Glendale has adopted the Uniform Standard Specification for Public Works Construction (Current Version) which are sponsored and distributed by the Maricopa Association of Governments. These documents, with current revisions, are hereby made part of these contract documents. "The Contracting Agency" as referred to in Uniform Standards and Specifications shall be the City Of Glendale.

In all cases where ASTM, AASHTO, AWWA, USAS, Federal, City of Phoenix, MAG Specifications, Maricopa County, Arizona Department of Transportation, or other standard specifications are referred to, unless otherwise stated, revision, supplements or addenda issued on or above the date of this contract shall prevail.

In the event of any conflict between these project specifications and the requirements of the plans, detail drawings, MAG Standard Details and Specifications, These Project Specifications Shall Prevail.

The information written into these special provisions will:

1. Describe any special or unusual conditions
2. Explain details of the work not covered in the MAG Specifications and Details or the City of Glendale supplements thereto.
3. Relate certain work to specific bid items or payment quantities.

General construction notes for City of Glendale Public Works projects are included in the plan set and shall be representative, unless specifically noted otherwise, to all plan sheets.

PART B: BID ITEMS

The following bid items are numbered to correspond to the Schedule of Bid Items. They are included to explain details of work not covered by applicable Standard Specifications and to relate work and pay quantities to the specific Bid Item. Any work shown on the plans and not included in a bid item shall be considered incidental to the project.

ITEM 1 MOBILIZATION/DEMOBILIZATION

General:

Mobilization/demobilization shall include movement of Contractor's personnel, equipment, supplies and incidentals, including establishment of offices, buildings and other facilities required for the performance of the work on the project, as well as preparatory work and operations prior to the commencement of the work on the project locations

Measurement and Payment:

Mobilization/demobilization will be measured for payment by the lump sum as a single complete unit of work. Payment for mobilization/demobilization will be made at the contract lump sum price. Payment shall be made in equal one-third portions. The first payment will be paid with the Contractor's initial billing. The second payment will be made when the total payments to the Contractor for the pay items, exclusive of payments for mobilization/demobilization, equal greater than one-half of the initial contracted amount, exclusive of mobilization/demobilization. The remaining one-third will be paid as part of the final payment due to the Contractor.

ITEM 2 PROJECT SIGNS

General:

The contractor shall provide a minimum of two (2) portable signs at each work location, minimum size 48" x 30" with the following information – City of Glendale 2014 Slurry Seal Program, Project Hotline 000-000-0000. (Phone number to be provided by the City). Signs shall be in place at each location prior to the start of construction, placed to be visible to motorists and kept clean.

Measurement and Payment:

This item will be measured on an EACH basis and paid at the price established in the Bid Scheduled for all labor, materials, tools and equipment to complete the work.

ITEM 3 CONSTRUCTION MATERIAL SAMPLING & TESTING

General:

The Contractor, at their expense, shall provide adequate personnel for construction materials sampling and testing functions as required by the City of Glendale prior to commencement of construction:

- **LABORATORY TESTING SERVICES:** Construction materials testing laboratories must meet the following requirements in order to perform laboratory testing on construction materials samples:
 - Possess and maintain current AASHTO accreditation (including R 18) provided by the AASHTO Materials Reference Laboratory (AMRL), and Cement and Concrete Reference Laboratory (CCRL) in any test methods performed and be currently participating in their respective proficiency programs.
 - Concrete Strength testing must be performed by a technician currently certified by the American Concrete Institute (ACI) as a "Concrete Strength Testing Technician".

- **FIELD TESTING AND SAMPLING SERVICES:** Field technician shall be employed by the construction materials testing laboratory noted above and have current "Field Technician Certification" from the Arizona Technical Testing Institute (ATTI) and current "Concrete Field Testing Technician-Grade I" certification from the American Concrete Institute.

- **TESTING FREQUENCIES:** Laboratory and field testing and sampling shall adhere to the Current City of Glendale minimum frequencies (See Below Table). Formal documentation, records etc. shall be provided to the City in a timely manner and as part of required project documentation for overall project acceptance. The City reserves the right to utilize independent/additional testing to confirm prior results.

City of Glendale Minimum Construction Materials Field Testing Frequency				
Type of Material	Type of Structure	Minimum Test Frequency	Minimum Test Requirements	Test Method
Native In-Situ	Curb, Gutter & Sidewalk	1-per 500 lin Ft.	90% & +2-4% of optimum moisture	ASTM D-698/D-2922
Native In-Situ	Roadway Subgrade	1-per 500 lin Ft	95% & +2-4% of optimum moisture	ASTM D-698/D-2922
Native In-Situ	Trench Backfill	1-per 500 lin Ft. per 1 ft. lift	95% & +2-4% of optimum moisture	ASTM D-698/D-2922
Native In-Situ	Structural Backfill	1-per lift	95% & +2-4% of optimum moisture	ASTM D-698/D-2922

Native In-Situ	Driveways, Aprons, Valley Gutters	1-per structure	95% & +2-4% of optimum moisture	ASTM D-698/D- 2922
Aggregate Base	Pipe Bedding	1-per 500 lin Ft	95%	ASTM D-698/D- 2922
Aggregate Base	Curb, Gutter & Sidewalk	1-per 500 lin. Ft	95%	ASTM D-698/D- 2922
Aggregate Base	Roadway Base	1-per 500 lin Ft	100%	ASTM D-698/D- 2922
Aggregate Base	Structural Fill	1-per lift	95%	ASTM D-698/D- 2922
Concrete	Curb, Gutter, Sidewalk, Driveways	1 set per 50 yards or 1/2 days pour	1 set of (4) 4X8 Cylinders	ASTM C-71/C 172
Asphaltic Concrete	Roadway (Arterial)	1-per 750 lin. Ft. per pass	92%-Nuclear Density	ASTM D-2950/D- 2041
Asphaltic Concrete	Roadway (Arterial)	1-per 750 lin Ft per pass	92%-Core Density	ASTM D-2726
Asphaltic Concrete	Roadway (Residential)	1-per 750 lin. Ft. per pass	95%-Marshall Density	ASTM D- 6926/D6927
Asphaltic Concrete	Roadway (Residential)	1-per 750 lin Ft. per pass	95%-Core Density	ASTM D-2726
Asphaltic Concrete	Roadway	1 Sample per 500 tons	Un-compacted Field Sample	AC Laboratory Tests*
NOTE:	This table is based on the approximate minimum number of tests to be performed and requirements may be increased depending on the site conditions or other circumstances at the discretion of the City of Glendale *All Asphaltic Concrete Laboratory Tests are covered on another sheet provided upon request			
* All Asphaltic Concrete Laboratory Tests are covered on another sheet provided upon request				

Measurement:

Measurement will be made in accordance with unit prices set forth in the Schedule of Bid Items.

Measurement and Payment:

Payment shall be made as a monthly percentage of the total bid price. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents.

ITEM 4 ASPHALT REPAIR (REMOVE & REPLACE)**General:**

The work described here in shall consist of saw cutting asphalt to limits as marked in the field, removal of asphaltic concrete, cleaning debris from existing sub-grade, scarify and re-compact existing subgrade to minimum MAG compaction requirements, and placement of new ½" (12.5mm) asphaltic concrete. All asphalt remove/replace locations shall not extend into curbs, gutter, sidewalk, valley gutter or other existing improvements. All street pavement replacement depth shall be a minimum of three (3") inches, or match existing thickness, whichever is greater.

Location of Work:

All asphalt repair areas indicated on the project improvement exhibits have been marked in the field with white marking paint. All areas shall be field verified by the Contractor prior to commencing construction and any areas unable to be located by Contractor shall be brought to the attention of the City of Glendale prior to proceeding. The City reserves the right to make additions or deletions to the original quantity amount, and/or to the streets or number of streets, at the price bid per square yard.

Asphaltic Concrete Mix Designs.

Asphalt mix designs shall be prepared and submitted for approval in accordance with the current version of MAG Uniform Standard Specifications and Details for Public Works Construction Section 710 "Asphalt Concrete".

Asphalt Concrete shall be produced and placed in accordance with MAG Section 321 "Placement and Construction of Asphalt Concrete Pavement".

The designation for asphalt concrete mixes shall be based on the nominal maximum aggregate size of the mix as indicated in the MAG Uniform Standard Specifications. The applicable mix designations are 3/8 inch (9.5mm), ½ inch (12.5mm), ¾ inch (19mm), and base 1" (25mm) mix.

Gyratory mixes shall be used for high/intermediate traffic conditions, Marshall Mixes for low traffic conditions. High/intermediate traffic conditions are conditions where the asphalt mix will be subject to higher volumes and/or heavier weight vehicle usage such as found on major arterial, collector, and commercial streets. Low traffic conditions are conditions where the asphalt mix will be subject to lower volumes and lower weight vehicle usage. Examples are residential streets, most parking lots, and residential minor collector streets. When in dispute, street classifications (i.e. minor collector, major collector) shall be determined by the City of Glendale or as indicated on the plans.

The following table (MAG Table 710-1) displays the recommended lift thickness for various asphalt concrete mix designations found within MAG Section 710. These

recommended lift thicknesses are minimums based on each mix designation's "Nominal Aggregate Size" and the relative coarseness of its gradation. The completed thickness of layers placed shall not exceed 150% of the Minimum Lift Thickness of Table 710-1 except as otherwise indicated in the plans and specifications, or approved in writing by the Engineer.

Table 710-1		
RECOMMENDED MINIMUM LIFT THICKNESS for ASPHALT CONCRETE MIXES		
Asphalt Concrete Mix Designation (inches)	Minimum Lift Thickness Marshall Mixes	Minimum Lift thickness Gyratory Mixes
3/8"	1 0"	1.5"
1/2"	1.5"	2 0"
3/4"	2.5"	3.0"
BASE	3 0"	n/a

Asphaltic Concrete Material Sampling & Testing:

The Contractor, at their expense, shall provide adequate personnel for construction materials sampling for asphaltic concrete, as required by the City. Laboratory and field testing and sampling shall adhere to the current City of Glendale minimum frequencies (See Below Table and Item 3 of the Special Provisions). Formal documentation, records etc. shall be provided to the City in a timely manner and as part of required project documentation for overall project acceptance. The City reserves the right to utilize independent/additional testing to confirm the results.

CITY OF GLENDALE -CONSTRUCTION ENGINEERING				
Materials Testing Section				
ASPHALTIC CONCRETE MINIMUM SAMPLING AND TESTING FREQUENCY				
TYPE OF SAMPLE	REQUESTED TEST(S)	TEST METHOD DESIGNATION	MINIMUM SAMPLE FREQUENCY	MINIMUM SIZE OF SAMPLE
COLD FEED AGGREGATE OR COMBINED HOT-BIN AGGREGATE SAMPLES	SIEVE ANALYSIS	A S.T.M C-136	1-EVERY 500 TONS	25Kg
	SAND EQUIVALENT	A S.T.M D-2419	1-PER DAY	10Kg
	SPECIFIC GRAVITY (COARSE & FINE)	A S.T.M. C-127/ C-128	1-PER DAY	12Kg
	SIEVE ANALYSIS	A S.T.M C-136	1 PER EACH ADDITIONAL 500 TONS PRODUCED	25Kg
	SIEVE ANALYSIS	A.S.T M C-136	1 PER EACH ADDITIONAL 500 TONS PRODUCED	25Kg
	IGNITION-GRADATION	ARIZ 427	1-PER FIRST 500 TONS PER DAY	9Kg
	GYRATORY COMPACTION	AASHTO TP4	1-PER FIRST 500 TONS PER DAY	9Kg

UN-COMPACTED ASPHALTIC CONCRETE MIXTURE	IGNITION GRADATION	ARIZ. 427	1-PER FIRST 500 TONS PER DAY	9Kg
	GYRATORY COMPACTION	AASHTO TP4	1-PER FIRST 500 TONS PER DAY	9Kg
	MAX. THEORETICAL SPECIFIC GRAVITY	A S.T.M. D-2041	1-PER FIRST 500 TONS PER DAY	7Kg
	IGNITION GRADATION	ARIZ 427	1-PER FIRST 500 TONS PER DAY	9Kg
	MARSHAL COMPACTION	A.S T M D- 6926/D6927	1-PER FIRST 500 TONS PER DAY	9Kg
COMPACTED ASPHALTIC CONCRETE MIXTURE	NUCLEAR DENSITY	A S.T.M D-2950	1-PER 750 LINEAR FT PER PASS OR RIBBON	N/A
	SPECIFIC GRAVITY BY CORE SAMPLE	A.S.T M D-2726	1-PER 750 LINEAR FT PER PASS OR RIBBON	N/A

Measurement and Payment.

The quantities of asphalt remove/replace, as provided in the quantities will be paid for at the unit price per square yard. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents. Saw cutting remove and disposal of materials shall be considered incidental to the bid item.

ITEM 5 CRACK SEALING

General

The work described herein shall consist of an application of hot applied, single component polymer modified asphalt rubber, supplied in solid form used to seal cracks or joints in asphalt concrete pavements. Cracks or joints that will be sealed shall be a minimum of ¼ inch wide at the time of work, and have a maximum width of 1"

Location:

Streets to have crack sealing applied are indicated on the project improvement exhibits. All cracks meeting the requirements of this specification on each street identified shall be sealed. The estimated lengths of cracks include edge of pavements, cul-de-sacs, elbow turns, and curb returns. The city reserves the right to make additions or deletions to the original quantity amount, and/or to the streets or number of streets, at the price bid per linear foot.

Materials:

Materials shall be premixes, single component mixture of asphalt cement, aromatic extender oils, polymers, and granulated rubber in a closely controlled manufacturing process. Materials will conform to the following specifications when heated in accordance to ASTM D5078 to manufactures maximum safe heating temperatures. Prior to application, the Contractor shall submit certification of compliance to the Engineer for all materials to be used in the work.

<u>TEST</u>	<u>TEST METHOD</u>	<u>SPECIFICATION LIMITS</u>
Cone Penetration	ASTM D5329	20-40
Resilience	ASTM D5329	30% Minimum
Softening Point	ASTM D113	210°F (99°C) Minimum
Ductility, 77°F (25°C)	ASTM D113	30 cm Minimum
Flexibility	ASTM D3111 *Modified	Pas at 30°F (-1°C)
Flow 140°F (60°C)	ASTM D5329	3 mm Maximum
Brookfield Viscosity, 400°F (204°C)	ASTM D2669	100 Poise Maximum
Asphalt Compatibility	ASTM D5329	Pass
Bitumen Content	ASTM D4	60% Minimum
Tensile Adhesion	ASTM D5329	400% Minimum
Maximum Heating Temperature		400°F (204°C)
Minimum Heating Temperature		380°F (193°C)
*Specimen bent 90° over a 1-inch mandrel within 10 seconds		

Equipment:

The melter applicator unit shall be a self-contained double boiler device with the transmittal of heat through heat transfer oil. It must be equipped with an on board automatic heat controlling device to permit the attainment of a predetermined temperature, and then maintain that temperature as long as required. The unit shall also have means to vigorously and continuously agitate the sealant to meet the requirements of Appendix X1.1 of ASTM D6690. The sealant shall be applied to the pavement under pressure supplied by a gear pump with hose and wand and direct connecting applicator tip. The pump shall have sufficient pressure to apply designated sealant at a rate of at least three (3) gallons (11.4 L) per minute. Melter applicators shall be approved for use by the sealant manufacturer.

Application:

The sealant shall be applied in the crack or joint reservoir uniformly from bottom to top and shall be filled without formation of entrapped air or voids. The crack or joint shall be slightly overfilled then leveled with a 3" sealing disk or v-shaped squeegee to create a neat band aid extending +/- 1" on each side of the crack or joint for surface strength and waterproofing. The band aid shall not be more than 1/8" inch in thickness above the pavement surface.

Cleaning and Preparing Cracks or Joints:

Prior to application of Polymer modified asphalt rubber, all cracks or joints shall be cleaned out of any debris or dust. As directed by the Engineer, final cleaning of the cracks or joints shall be vacuumed.

- Vacuuming: Final cleaning shall thoroughly clean cracks and joints to a minimum of 1". The vacuum unit shall use high pressure 90 psi (620 kPa) minimum, dry, oil free compressed air to remove any remaining dust, directly attached to a vacuum unit to collect the dust and residue. Both sides of the crack or joint shall be cleaned. Surfaces will be inspected to assure adequate cleanliness and dryness.

Opening to Traffic.

Material shall not be exposed to traffic until fully cured. If sealed area must be open to traffic a blotter material can be applied to surface of polymer modified asphalt rubber.

- Blotter: On two lane roads or where traffic may be likely to come in contact with the hot sealant before it cures, a blotter or specialized bond breaking material may be required to prevent asphalt bleeding and/or pickup of sealant by vehicular traffic. Blotter material should be compatible with crack sealant and any surface treatment being used.

Pavement Temperatures:

Polymer modified asphalt rubber shall be applied when pavement temperature exceeds 40° (4°C). Lower temperatures may result in reduced adhesion due to the presence of moisture or ice. If pavement temperature is lower than 40° (4°C), it may be warmed using a heat lance that puts no direct flame on the pavement. If installing at lower than pavement temperatures than 40° (4°C), extreme care should be used to insure that cracks or joints are dry and free from ice and other contaminants. Product temperature should be maintained at the maximum heating temperature recommended by the manufacture. If installing at night, ensure that dew is not forming on the pavement surface. Applied product should be checked by qualified personnel to ensure that adhesion is adequate.

Measurement and Payment:

Cleaning and sealing of cracks and joints shall be measured by the linear foot of cracks cleaned and sealed.

The accepted quantities of crack sealing, measured as provided above, shall be paid for at the contract unit price per linear foot with no allowance for waste. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents.

No payment will be made for materials rejected due to improper placement, improper proportions of materials, or material found to be defective or out of specifications.

ITEM 6 SLURRY SEAL

General:

Polymer Modified Slurry Seal shall consist of mixing a modified cationic asphalt emulsion (LMCQS-Ih or PMCQS-Ih), aggregate, mineral filler (as needed), set controls additives (as needed), and water, spreading the mixture on a pavement surface as shown on the plans, in conformance with the provisions in these special provisions and as directed by the Engineer. The completed Slurry Seal shall leave a homogeneous mat, adhere firmly to the prepared surface, have a uniform appearance and have a skid resistant surface. The completed Polymer Modified Slurry Seal shall support controlled traffic in 60 minutes.

All streets identified in these bid documents and improvement exhibits to receive Single Slurry shall have Type II Slurry (as described in this specification) applied. All streets identified to receive Double Slurry shall have Type III Slurry capped with an application of Type II Slurry. See the attached improvements exhibits for slurry application areas. A minimum time of three (3) days is required between application of Type III slurry and Type II slurry in areas identified to receive double slurry.

The work performed and materials used in this project shall be in accordance with the Uniform Standard Specifications and Details for Public Works Construction sponsored and distributed by Maricopa Association of Governments (MAG) with the following additions.

Location of Work:

The streets to have polymer modified slurry seal applied are indicated on the project improvements exhibits. The slurry seal shall be applied from lip or face of gutter to lip or face of gutter and across the full pavement width on all streets indicated to have application. The estimated areas include cul-de-sacs, elbow turns, and curb returns. The City reserves the right to make additions or deletions to the original quantity amount, and/or to the streets or number of streets, at the price bid per square yard.

No slurry seal application shall extend onto an arterial roadway. Slurry seal application limits shall begin from the point of curvature (PC)/curb return of the intersection arterial collector or local street, or the valley gutter (where applicable), on the roadways identified on the attached exhibits and identified to receive slurry.

Contractor Experience:

The Contractor shall be experienced with polymer modified slurry seal. The Contractor shall submit, during the pre-construction meeting, a list of at least three,

most recent, polymer modified slurry seal projects completed within 24 months. The project list shall show the name of the project, name of the owner, address, telephone number of an appropriate party to contact, date and square feet application in each case

Non-Compliance:

If any two successive tests fail on the stockpile material, the job shall be stopped. It is the responsibility of the Contractor, at his own expense, to prove to the City of Glendale that the conditions have been corrected. If any two successive tests on the mix from the same machine fail, the use of the machine shall be suspended. It will be the responsibility of the Contractor, at his own expense, to prove to the City of Glendale that the problems have been corrected and that the machine is working properly.

- Test report and certification will be made in accordance with MAG Specifications and these provisions.
- Particular Section of MAG Specifications which apply.
- Specifications for Polymer Modified Slurry Seal (Type II or Type III)

Materials:

The materials for polymer modified slurry seal shall conform to the following requirements.

Emulsified Asphalt:

The polymer modified cationic asphalt emulsion shall be homogenous and shall conform to the requirements of these special provisions. The polymer shall either solid polymer milled or blended into the asphalt or latex blended into the emulsifier solution prior to the emulsification process. The polymer modified cationic asphalt emulsion shall contain a minimum of two (2) percent polymer and either be grade LMCQS-Ih or PMCQS-Ih as shown in these special provisions and shall conform to the following requirements when tested in conformance with the following methods:

Latex Modified Cationic Quick Set (LMCQS-Ih)		
Test on Emulsion		
<u>Specification Designation</u>	<u>Test Method</u>	<u>Requirement</u>
Viscosity, SFS, 77°F, seconds	AASHTO T 59	15-100
Sieve Test %	AASHTO T 59	0 10 max
Storage Stability, 24 hr, %	AASHTO T 59	1.0 max
Particle Charge	AASHTO T 59	Positive
Residue by Evaporation, %	AASHTO T 59	60 min.

Test on Residue from Vacuum Distillation (Ariz. 504)		
<u>Specification Designation</u>	<u>Test Method</u>	<u>Requirement</u>
Penetration, 77°F, 100g, 5s, dmm	AASHTO T 49	20-90
Ring and Ball Softening Point, °F	AASHTO T 53	130 min

Ductility, 77°F, 5cm/min, cm	AASHTO T 51	40 min
Solubility in TCE, %	AASHTO T 44	97.5 min.
Elastic Recovery, %	AASHTO T 301	55 min
A sample of the emulsion left undisturbed for a period of 24 hours shall show no evidence of latex separation		

Polymer Modified Cationic Quick Set (PMCQS-Ih)		
Test on Emulsions		
<u>Specification Designation</u>	<u>Test Method</u>	<u>Requirement</u>
Viscosity, SFS, 77°F, seconds	AASHTO T 59	15-100
Sieve Test %	AASHTO T 59	0.10 max
Storage Stability, 24 hr, %	AASHTO T 59	1 0 max
Particle Charge	AASHTO T 59	Positive
pH Test	AASHTO T 200	6 7 max
Density, 60°F, lbs/gallon	AASHTO T 59	Report
Residue by Evaporation, %	AASHTO T 59	57 min.

Test on Residue from Vacuum Distillation (Ariz. 504)		
<u>Specification Designation</u>	<u>Test Method</u>	<u>Requirement</u>
Penetration, 77°F, 100g, 5s, dmm	AASHTO T 49	35-75
Penetration, 39.2°F, 200g, 60s, dmm	AASHTO T 49	15 min.
Absolute Viscosity, 140°F, Poise	AASHTO T 202	3000 max
Ring and Ball Softening Point, °F	AASHTO T 53	130 min
Ductility, 77°F, 5cm/min, cm	AASHTO T 51	100 min
Solubility in TCE, %	AASHTO T 44	97 5 min
Elastic Recovery, %	AASHTO T 301	55 min

Water and Additives:

Water shall be of such quality to be miscible with the polymer modified cationic asphalt emulsion. Additives may be used to accelerate or retard the break and set such as to insure that the applied slurry mixture can support controlled vehicular traffic within one (1) hour after application. The kind and amount shall be determined based on the approved job mix formula and field test results as required by the Engineer. Set-control additives shall not adversely affect the polymer modified slurry seal.

Mineral Filler:

Mineral filler shall be Portland cement or hydrated lime that is free of lumps. Portland cement shall be Type I, Type II, or combination thereof. The type of mineral filler shall be determined by the Contractor based on a laboratory evaluation to develop the job mix formula.

Aggregate:

The mineral aggregate used shall be of the type and grade specified for the particular use of the polymer modified slurry seal. Mineral aggregate shall consist of sound and durable crushed gravel or crushed stone. The material shall be free from organic matter and other deleterious materials. Aggregates shall be 100% crushed material with no rounded particles. All aggregate shall be free of caked lumps and oversized particles. No natural sand shall be allowed.

The aggregate prior to the addition of emulsion shall conform to the requirements of this section. If aggregates are blended each component aggregate shall meet the sand equivalency and abrasion resistance and shall be 100% crushed. The percentage composition by mass of the aggregate shall conform to the following grading requirements when tested in conformance with AASHTO T 11 and T 27.

TYPE II	
<u>Sieve Sizes</u>	<u>Percent Passing</u>
3/8" (9.5-mm)	100
No. 4 (4.75-mm)	90-100
No. 8 (2.36-mm)	65-90
No. 16 (1.18-mm)	45-70
No. 30 (600- μ m)	30-50
No. 50 (300- μ m)	18-30
No. 100 (150- μ m)	10-21
No. 200 (75- μ m)	5-15

TYPE III	
<u>Sieve Sizes</u>	<u>Percent Passing</u>
3/8" (9.5-mm)	100
No. 4 (4.75-mm)	70-90
No. 8 (2.36-mm)	45-70
No. 16 (1.18-mm)	28-50
No. 30 (600- μ m)	19-34
No. 50 (300- μ m)	12-25
No. 100 (150- μ m)	7-18
No. 200 (75- μ m)	5-15

The aggregate shall conform to the following quality requirements:

Test	Test Method	Requirement
Sand Equivalent	AASHTO T 176	60 min.
Plastic Limit	AASHTO T 89/T90	Non-Plastic
Percentage of Crushed Particles	Ariz. 212	100% min.
Los Angeles Abrasion Loss at 500 Rev.	AASHTO T 96	35% max

Notes Los Angeles Abrasion shall be performed on the source aggregate before crushing. Source testing performed within the last 12 months may be provided by the aggregate supplier.

Job Mix Formula:

All materials shall be pre-tested in a certified laboratory, selected by the City, as to the materials suitability for use in the Polymer Modified Slurry Seal. At least seven (7) working days before polymer modified slurry seal placement commences, the Contractor shall submit for approval of the Engineer a laboratory report of tests and a proposed Job Mix Formula proposed shall be reviewed and sealed by a registered Professional Engineer licensed in the State of Arizona.

The percentages of each individual material proposed for the job Mix Formula shall be shown in the laboratory report. Individual materials shall be within the following limits:

<u>Material</u>	<u>Limit</u>
Residual Asphalt (Type II)	7.5% to 13.5% By Dry Mass of Aggregate
Residual Asphalt (Type III)	6.5% to 12.0% By Dry Mass of Aggregate
Mineral Filler	0% to 3% By Dry Mass of Aggregate
Additive	As Needed
Water	As Needed

Adjustments may be required during construction based on field conditions.

Specifications:

The Job Mix Formula and aggregate tests shall be performed by a laboratory capable of performing the applicable International Slurry Surfacing Association (ISSA) tests. The proposed polymer modified slurry seal mixture shall conform to the specified requirements when tested in conformance with the following tests:

<u>Test</u>	<u>ISSA Test Method</u>	<u>Requirements</u>
Wet Cohesion, kg-cm @ 30 Minute (Set) @ 60 Minute (Traffic)	TB* 139	12 min 20 min.
Excess Asphalt by Monolayer Loaded Wheel Test, g/ft ²	TB* 109	50 max.
Wet Stripping, %	TB* 114	90 min.
Wet Track Abrasion, g/ft ² 1-hour Soak Loss 6-day Soak Loss	TB* 100	50 max. 75 max.
Mix Time @ 77° F, seconds	TB*113	180 min

TB* = Technical Bulletin

The laboratory that performed the tests and designed the mixture shall sign and seal the laboratory Job Mix Formula Report. The report shall show the results of the tests on individual materials and shall compare their values to those required by these special provisions. The report shall clearly show the proportions of aggregate, filler water, set control additive, and polymer modified cationic asphalt emulsion solids content (minimum and maximum) based on dry mass aggregate. The laboratory shall report the quantitative effects of moisture content on the unit mass of the aggregate (bulking effect) in conformance with the requirements of ASTM Designation C 29M. Previous laboratory reports covering the same materials may be accepted provided the material test reports were completed within the previous 12 months.

The component materials used in the Job Mix Formula shall be representative of the polymer modified slurry seal materials proposed by the Contractor for use on this project.

Once the Job Mix Formula is approved by the Engineer, no substitution of other material will be permitted unless the materials proposed for substitution are first tested and a laboratory report is submitted for the substituted design in conformance with these special provisions. Substituted materials shall not be used until the Job Mix Formula for those materials has been approved by the Engineer.

The completed mixture, after addition of water and set control additives, if used, shall be such that the polymer modified slurry seal mixture has proper workability. At the expiration of the road closure time, in conformance with these special provisions, the polymer modified slurry seal mixture shall be sufficiently cured to support unrestricted traffic.

Material Sampling and Quality Acceptance:

The minimum acceptable sampling frequency shall be at the Engineers discretion and shall include:

- Polymer Modified Cationic Asphalt Emulsion
- Mineral Aggregate
- Polymer Modified Slurry Seal Mix
 - Polymer Modified Cationic Asphalt Emulsion shall be tested in compliance to the applicable specification in this special provision. At the Engineers discretion the polymer modified cationic asphalt emulsion can be tested for compliance with selected performance indicating portions of the specification.
 - The mineral aggregate shall be tested for gradation and sand equivalent in accordance with these special provisions.
 - The polymer modified slurry seal mixture shall be tested for Wet Cohesion, Wet Track Abrasion Loss (1-hour and 6-day soaks) and Excess asphalt. Additional testing for residual asphalt content may be requested by the Engineer.

Test	ISSA Test Method	Requirements
Wet Cohesion, kg-cm @ 30 Minute (Set)	TB* 139	12 min.
Excess Asphalt by Monolayer Loaded Wheel Test, g/ft ²	TB* 109	50 max
Wet Track Abrasion, g/ft ² 1-hour Soak Loss 6-day Soak Loss	TB* 100	50 max 75 max.
Mix Time @ 77° F, seconds	AASHTO T 164	Range from Job Mix Formula

TB* = Technical Bulletin

Sampling:

Samples of polymer modified cationic asphalt emulsion shall be obtained from the job site storage tank or the polymer modified slurry seal application truck. Aggregate samples shall be obtained from the project stockpile. Inspector shall observe the sampling of one (1) gallon of the emulsion and a representative sample of slurry seal aggregate. Contactor shall provide the samples and container to the inspector. Sampling of the polymer modified cationic asphalt emulsion shall be in accordance with AASHTO T40.

Samples of the polymer modified slurry seal mixture shall be obtained from the pug mill discharge prior to the polymer modified slurry seal entering the lay down box and shall be of adequate size to fabricate all test specimens from one sample.

The Engineer or his representative shall be permitted to take samples of materials from the project at any time. The City may elect to perform testing on samples to verify compliance of the materials with the Specifications.

Testing shall be under taken by the Engineer whenever deemed necessary. The Engineer, or his representative, may suspend the application of the polymer modified slurry seal whenever changes in the materials or quality of the applied polymer modified slurry seal are noted. Work shall resume only when the noted deficiencies are corrected to the satisfaction of the Engineer. When work is suspended for this reason, samples will be taken immediately.

The Engineer may send samples to a testing laboratory. Testing will be at the City's expense unless deficiencies are verified by the testing. The Contractor shall reimburse the City for the cost of any testing required by deficient materials or application of the polymer modified slurry seal.

Proportioning:

Aggregate, mineral filler, polymer modified cationic asphalt emulsion, water, and additives including the set-control agent, if used shall be proportioned by volume utilizing the Job Mix Formula approved by the Engineer. If more than one kind of

aggregate is used, the collect amount of each kind of aggregate to produce the required grading shall be proportioned separately, prior to adding the other materials of the mixture, in a manner that will result in a uniform homogeneous blend.

- The aggregate shall be proportioned using a belt feeder operated with an adjustable cutoff gate. The height of the gate opening shall be determinable. The polymer modified cationic asphalt emulsion shall be proportioned by a positive displacement pump. Variable rate emulsion pumps, if used shall be calibrated and sealed in the pump's calibrated condition in conformance with ISSA MA-I standards.

The delivery rate of aggregate and polymer modified cationic asphalt emulsion per revolution of the aggregate feeder shall be calibrated at the appropriate gate settings for each mixer-spreader truck used on the project in conformance with ISSA MA-I and in conformance with the provisions of these special provisions

The aggregate belt feeder shall deliver aggregate to the pugmill with such volumetric consistency that the deviation for any individual aggregate delivery rate check-run shall not exceed 2.0 percent of the mathematical average of 3 runs of at least three tons each. The emulsion pump shall deliver polymer modified cationic asphalt emulsion to the pugmill with such volumetric consistency that the deviation for any individual aggregate delivery rate check-run shall be within 2.0 percent of the mathematical average of 3 runs of at least 300 gallons each

- The polymer modified cationic asphalt emulsion storage tank shall be located immediately before the emulsion pump and shall be equipped with a device which will automatically shut down the power to the emulsion pump and aggregate belt feeder when the polymer modified cationic asphalt emulsion level is lowered to a point where the pump suction is exposed.

A temperature indicating device shall be installed in the emulsion storage tank at the pump suction level. The device shall indicate the temperature of the polymer modified cationic asphalt emulsion and shall be accurate to within 10°F

- The belt delivering the aggregate to the pugmill shall be equipped with a device to monitor the depth of the aggregate being delivered to the pugmill. The device for monitoring the depth of the aggregate shall automatically shut down the power to the aggregate belt feeder whenever the depth of the aggregate is less than the target depth of flow. A second device shall be located where the device will monitor the movement of the aggregate belt by detecting revolutions of the belt feeder. The devices for monitoring no flow or belt movement shall automatically shut down the power to the aggregate belt when the aggregate belt movement is interrupted. The device to detect

revolutions of the belt feeder will not be required where the aggregate delivery belt is an integral part of the drive train. To avoid erroneous shutdown by normal fluctuation, a delay of 3 seconds will be permitted between sensing and shutdown of the operation.

Mixing and Spreading Equipment:

The polymer modified slurry seal shall be mixed with a continuous flow pugmill mixer of adequate size and power for the type of polymer modified slurry seal to be placed. The aggregate shall be pre-wet immediately prior to mixing with the emulsion. The mixing unit of the mixing chamber shall be capable of thoroughly blending all ingredients together. No violent mixing shall be permitted. An approved fines feeder that provides an accurate metering device or method to introduce predetermined amount of mineral filler into the mixer at the same time and location that the aggregate is fed will be required. The mixing machine shall be equipped with a water pressure system and fog type spray bar, adequate for complete water fogging of the surface preceding the spreading equipment. The rate of application of the water shall be adjusted during the day to suit temperatures, surface texture, humidity, and dryness of the pavement surface to insure that the entire surface is damp with no apparent flowing water in front of the slurry box. Indicators shall be in conformance with the provisions of these special provisions and shall be in working order prior to commencing mixing and spreading operations.

Mixer-spreader trucks shall be equipped to proportion the polymer modifies cationic asphalt emulsion, water, aggregate, mineral filler, and set-control additives by volume. Rotating and reciprocating equipment on mixer-spreader trucks shall be covered with metal guards. The mixer-spreader truck shall not be operated unless low-flow and no-flow devices and revolution counters are in good working condition and functioning and metal guards are in place. Indicators required by these special shall be visible while walking alongside the mixer-spreader truck.

Aggregate feeders shall be connected directly to the drive of the emulsion pump. The drive shaft of the aggregate feeder shall be equipped with a revolution counter reading to the nearest one-tenth of a revolution.

Calibration:

Each slurry mixing unit to be used in performance of the work shall be calibrated. Previous calibration documentation covering the exact materials to be used will be accepted as long as the substituted calibration has occurred within the previous twelve (12) months from the date of these documents.

Spreader Box:

The polymer modified slurry seal mixture shall be spread by means of a spreader box conforming to the following requirements:

The spreader box shall be capable of placing the polymer modified slurry seal a minimum of 12 feet wide and shall have strips of flexible rubber belting or similar

material on each side of the spreader box and in contact with the pavement to prevent the loss of polymer modified slurry seal from the box. Spreader box skids shall be maintained in such a manner as to prevent chatter (wash boarding) in the finished mat. The spreader box in use shall be clean and free of polymer modified slurry seal and polymer modified cationic asphalt emulsion at the start of each work shift.

- The spreader box shall have a series of strike-off devices at the rear of the box. The leading strike-off device shall be fabricated of steel, stiff rubber or other suitable material. The number of strike-off devices shall be determined by the Contractor. The first strike-off device shall be designed to maintain close contact with the pavement during the spreading operations, shall obtain the thickness required, and shall be capable of being adjusted to the various pavement cross sections for application of a uniform polymer modified slurry seal finished surface. The final strike-off device shall be fabricated of flexible material suitable for the intended use and shall be designed and operated to ensure a uniform texture is achieved in the finished surface of the polymer modified slurry seal. The final strike-off device shall be cleaned or changed daily if problems with the longitudinal scouring occur.
- Hand Work: Areas which cannot be reached with the slurry seal machine shall be surfaces using hand squeegees (36 inches wide) to provide complete and uniform slurry seal coverage and finish in the direction as applied with a burlap mop. Contractor shall provide the necessary hand tools and any support equipment which is exclusive to the slurry seal operation.

Preparation for polymer Modified Slurry Sealing:

Before placing the polymer modified slurry seal, the Contractor shall be responsible for clearing the street of any obstruction (low hanging tree limbs, trash piles, etc.) interfering with the completion of the contract. The pavement surface shall be cleaned by sweeping with PM-10 efficient type self-propelled pick up sweeper, flushing or by other means necessary to remove loose particles of paving, dirt, vegetation and other objectionable material.

All areas will be swept to the satisfaction of the inspector.

A paint binder (tack coat) of asphalt emulsion shall be applied to all Portland cement concrete surfaces when there is a contract item for the work or when the work requires in these special provisions. The asphaltic emulsion for paint binder (tack Coat) shall be grade SS1, SS1h, CSS1 or CSS1h and shall conform to the provisions of AASHTO m-140 or AASHTO M 208 "Emulsified Asphalt". The asphaltic emulsion shall be mixed in the proportion of one part emulsion (which contains up to 43% water) to 3 parts water. The mixture shall be applied at the approximate rate of 0.04-0.08 g/sq.yd. When asphaltic emulsion is used as a paint binder (tack coat), polymer modified slurry seal shall not be placed until asphaltic emulsion has cured.

Placing:

The polymer modified slurry seal mixture shall be uniformly spread on the existing surface within the rate specified without spotting, re-handling or otherwise shifting of the mixture

- The polymer modified slurry seal mixture shall not be placed when the ambient temperature is below 50 or during unsuitable weather. Polymer modified slurry seal shall not be placed if rain IS imminent or if there is the possibility that there will be freezing temperatures within 24 hours.
- Polymer modified slurry seal shall be spread at a rate within the following ranges of pound of dry aggregate per square yard.

<u>Aggregate Type</u>	<u>Location</u>	<u>Spread Rate (lbs/yd²)</u>
Type II	Full Traffic Width	18 minimum
Type III	Full Traffic Width	20 minimum

Longitudinal joints shall correspond with the edges of the traffic lanes. The Engineer may permit other patterns of longitudinal joints if the patterns will not adversely affect the quality of the finished product.

- Through traffic lanes shall be spread in full lane widths only. Longitudinal joints common to 2 traffic lanes shall be butt joints with overlaps not to exceed 3 inches Building paper shall be placed at the traverse joints to avoid double placement of the polymer modified slurry seal. Other suitable methods to avoid double placement of the polymer modified slurry seal will be allowed. No excessive buildup, uncovered areas, or unsightly appearance shall be determined on longitudinal or traverse joint. Hand tools shall be available to remove spillage.
- The mixture shall be uniform and homogeneous after placing on the surfacing and shall not show separation of the polymer modified cationic asphalt emulsion and aggregate after setting. The completed surface shall be of uniform texture and free from ruts, humps, depressions, or irregularities. No streaks, such as those caused by oversize aggregate, will be left in the finished surface. If excess oversized aggregate develops the job will be stopped until the Contractor can prove that the situation has been corrected. Adequate means shall be provided to protect the polymer modified slurry seal from damage by traffic until such time that the mixture has cured sufficiently so that the polymer modified slurry seal will not adhere to or be picked up by the tires of vehicles.

Placement of the polymer modified slurry seal shall cease a minimum of one hour before the expiration of the road closure hours as specified in the Traffic Control section of the special provisions, unless the Contractor proves to the satisfaction of the engineer that the surface will be ready for unrestricted traffic at the expiration of the road closure hours.

Rollers:

- Rollers shall be self-propelled rubber tire rollers (9-12 ton). The roller shall be equipped with an operating water spray system. The resurfaced area shall be subjected to a minimum of two (2) full coverages by the roller. Rolling shall not commence until slurry has cured enough so that the slurry will not pick up when rolled. It shall be rolled until all ridges have been ironed out and a uniform surface is obtained.
- Rollers shall have an operating strobe light or rotating beacon.

Test Strip:

The contractor shall construct a test strip at the discretion of the Engineer. If required the test strip shall be 300 feet to 500 feet long and shall consist of the application courses specified. The test strip shall be constructed either at night or early in the morning and shall cure and be open to traffic within 75 minutes of application.

The Engineer will evaluate the completed test strip after 12 hours of traffic on the completed test strip to determine if the mix design and placement procedure are acceptable. If the mix design or the placement procedure is determined by the Engineer to be unacceptable, the test strip will be rejected, the Contractor shall make modifications, and a new test strip shall be constructed and evaluated by the Engineer. The cost of materials and placement of strips, which have been rejected shall be borne by the Contractor and will not be considered as part of the contract work. If ordered by the Engineer, rejected test strips shall be removed at the Contractor's expense.

Procedure:

The Contractor shall perform the service in a safe and acceptable, workmanlike manner. Personnel shall be experienced, knowledgeable and capable in all aspects of performing the service. The same personnel that start the project shall remain on the project for the life of the project.

- All equipment shall be in good repair and serviceable to operate in a reliable and safe manner.
- The Contractor shall place polymer modified slurry seal to the beginning and ending limits of the work as directed by the Engineer.
- The contractor shall be responsible for providing the street cleaning, "No Parking" posting, and traffic control. The Contractor shall place signs as directed by the Engineer to notify residents of any scheduled street closures.
- The Contractor will be required to coordinate with the City's Public Relations Consultant for notifying residents and businesses of any street restrictions that will affect access to their property. The Contractor will provide scheduling

and schedule updates to the Public Relations Consultant in such a timely manner as to allow a minimum of 48 hours advance notice of construction activity and street restrictions. For Monday work residents and businesses shall be notified the preceding Thursday. For Tuesday work, residents and businesses shall be notified the preceding Friday. Re-notification shall be a minimum of 24 hours in advance.

- Contractor shall sand intersections as directed by the Engineer to allow traffic to cross freshly placed polymer modified slurry seal at intersections, business entrances/exits and other locations that cannot, in the estimation of the Engineer, be completely closed to traffic. Sand material will be the same aggregate used in the polymer modified slurry seal mixture.
- The Contractor shall be responsible for all clean-up of the work areas and staging areas. The Contractor shall be responsible for covering and uncovering all structure covers, such as manholes, valve, and monument covers. The Contractor shall sweep, with PM-10 efficient type self-propelled pick up sweeper, all areas surfaced no earlier than five (5) days and no later than ten (10) days after completion of surfacing operations.
- At the end of each day's production, the Contractor will provide to the inspector a report containing the following information:
 - Tons of dry aggregate consumed that day
 - Tons of emulsion consumed that day; and
 - Footage covered that day

This report shall be received no later than 10:00 am of the following day

Area Omissions:

All areas temporarily omitted by the Contractor during normal operations shall be logged and a list of the missed areas (addresses or intersections) shall be given to the Inspector before the start of the next day's work.

Clean Up:

All areas such as sidewalks, gutters, and intersections, shall have slurry seal removed as specified by the City. The Contractor shall sweep, with PM-10 efficient type self-propelled pick up sweeper, all areas surfaced no earlier than five (5) days and no later than ten (10) days after completion of surfacing operations.

Repair of Early Distress:

If bleeding, raveling, delamination, rutting, or wash boarding occurs within 60 days after placing the polymer modified slurry seal, the Contractor shall diligently pursue repairs by any method approved by the Engineer. The Contractor shall not be relieved from maintenance until repairs have been completed.

Patching: Areas that require patching shall be full lane width or as directed by the inspector. Patching will be limited to one side of the street at a time.

Measurement & Payment:

Slurry Seal shall be measured by the square yard. The Quantity shall include the full pavement width area (lip or face of gutter to lip or face of gutter) on all streets as identified to receive slurry seal.

The accepted quantities of Slurry Seal, measured as provided above, will be paid for at the contract unit price per square yard. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents.

The cost of testing for and furnishing mix design, cleaning the surface, furnishing added water and set-control additives, and protecting the polymer modified slurry seal until it is set is considered incidental to this item of work.

No payment will be made for materials rejected due to improper placement, improper proportions of materials, or material found to be defective or out of specifications

ITEM 7 MICRO SEAL

General:

The work described herein shall consist of constructing micro-surfacing on an existing asphaltic concrete pavement surface. This specification covers the materials, equipment and construction procedures for resurfacing and/or rut-filling of existing paved surfaces. The micro-surfacing shall be a mixture of mineral aggregate, polymer modified emulsified asphalt, mineral filler, water, and other additives, properly proportioned, mixed, and spread on the pavement surface in accordance with the specifications, and as directed by the Engineer.

The finished product shall be able to accept straight, rolling traffic within one hour after placement without damage; however, stopping and starting traffic, and adverse weather conditions, may require additional curing time.

The contractor shall supply all materials, labor, and equipment necessary to perform the micro-surfacing work as described herein, or as directed by the Engineer. All equipment, tools and machines used in the performance of this work shall be maintained in satisfactory working condition at all times to ensure a high quality product.

The contractor shall provide a minimum two-hour orientation session for project personnel, covering the construction process, materials control, and materials measurement by true weight delivered versus machine dial readings.

The contractor shall provide to the Engineer, on a daily basis, the quantity of material delivered versus material placed through the micro-surfacing mixer based on dial gauge readings. The Engineer will independently verify all dial gauge readings and weight of material delivered. This information will be used as a check against the job mix formula proportions.

References are made herein to the following nationally recognized organizations:

- AASHTO American Association of State Highway and Transportation Officials
- ASTM American Society for Testing and Materials
- ISSA International Slurry Surfacing Association

Materials:

All Materials shall be approved by the Engineer prior to the start of construction. The Engineer reserves the right to sample and test any materials used on the project. All materials that do not meet specification will be rejected.

The information given in Table 1 shall be used to estimate the quantities of emulsified asphalt and dry mineral aggregate for Type II and Type III micro-surfacing. Exact quantities of emulsified asphalt and dry mineral aggregate shall be determined by job mix formula, or as directed by the Engineer.

TABLE 1		
Material	Type II Micro-Surfacing	Type III Micro-Surfacing
Emulsified Asphalt, by weight of Dry Mineral Aggregate, percent	14	13
Dry Mineral Aggregate, pounds per square yard	22	30

Emulsified Asphalt:

Polymer modifies, cationic, quick setting (mixing grade) emulsified asphalt (PMCQS-1h) shall be used. A minimum of 4% polymer solids, by total weight of polymer and asphalt residue, shall be added prior to the mill head. The type and amount of polymer solids used shall be certified by the supplier.

The polymer modifies emulsified asphalt shall conform to the requirements of Table 2.

TABLE 2		
Polymer Modified Emulsified Asphalt (PMCQS-1h)		
TESTS OF EMULSION	TEST METHOD	SPECIFICATION LIMITS
Viscosity, Saybolt Furol seconds @ 77°F	AASSTO T-59	20-100
Sieve Test, retained on No. 20, %	AASSTO T-59	0 30 Max
Particle Charge	AASSTO T-59	Positive
Storage Stability Test, 24 hours, %	AASSTO T-59	1.0 Mas

Percent Asphalt Residue by Evaporation	Arizona Test Method 512(1)	40 Min
TESTS ON RESIDUE BY DISTILLATION AASHTO T-59 (350°F MAX)	TEST METHOD	SPECIFICATION LIMITS
Kinematic Viscosity @ 275 °F, cst	AASTO T-201	650 Min
Penetration, 77 °F, 100 g, 5 seconds, 0.1 mm	AASTO T-49	40-90
Softening Point, °F	AASTO T-53	140 Min
Ductility, 77 °F, 5cm/minute, cm	AASTO T-51	60 Min
Elastic Recovery @ 77°F,%	AASTO T-301 (2)	55 Min
(1) The percent of asphalt residue will be determined in accordance with the requirements of Arizona Test Method 512 when only residue percent is being tested; however, in the case of dispute or when residue testing is required, the percent of asphalt residue by distillation (AASHTO T 59, modified to 350°F) will be used.		
(2) Testing shall be performed on residue by distillation, not on residue by oven evaporation		

Mineral Aggregate:

The mineral aggregate used shall be of the type and grade specified for the particular use of the micro-surfacing. Mineral aggregate shall consist of sound and durable crushed gravel or crushed stone. The material shall be free from organic matter and other deleterious materials. Aggregates shall be 100% crushed material with no rounded particles. All aggregate shall be free of caked lumps and oversize particles. No natural sand will be allowed.

The mineral aggregate, prior to the addition of emulsion shall conform to the requirement of this section. If aggregates are blended each component aggregate shall meet the sand equivalency and abrasion resistance and shall be 100% crushed.

The gradation of the mineral aggregate shall be Type II or Type III; however, Mineral aggregate meeting the requirements of Type III shall be used for rut-filling. The gradation of the mineral aggregate, when tested in accordance with the requirements of AASHTO T 11 and T 27, shall conform to the requirement of Table 3.

SIEVE SIZE	PERCENT PASSING SIEVES		
	MIX DESIGN GRADING LIMITS		PRODUCTION TOLERANCES (See Note Below)
	TYPE II	TYPE III	
3/8 inch	100	100	±7
No 4	85-100	70-90	±7
No. 8	65-90	45-70	±7
No 16	45-70	28-50	±7
No 30	30-50	19-34	±7
No. 50	18-30	12-25	±6

No 100	10-21	7-18	±5
No 200	5 0-15 0	5 0-15 0	±4 0
<p>Note. the allowable tolerance during production will be determined by applying the production tolerances to the job mix formula target values. However, the allowable production tolerance shall not fall outside the mix design grading limits in this table</p>			

The mineral aggregate shall conform to the requirements of Table 4 when tested in accordance with the applicable test methods

Table 4 MINERAL AGGREGATE CHARACTERISTICS		
CHARACTERISTIC	TEST METHOD	REQUIREMENT
Sand Equivalent	AASHTO T 176 (After thoroughly sieving the sample, no additional cleaning of the fines from the plus No 4 material is required)	Minimum 60
Carbonates	Arizona Test Method 238	Maximum 20%
Abrasion	AASHTO T 96	500 Rev., Max 40%
Fractured Coarse Aggregate Particles	Arizona Test Method 212	Minimum 95% (with at least one fractured face)
Un-compacted Void Content	Arizona Test Method 247	Minimum 45 0%

Tests on aggregates outlined in Table 4, other than abrasion, shall be performed on materials furnished for development of job mix formula purposes. Abrasion testing shall be performed separately for each source of mineral aggregate. All sources shall meet the requirements for abrasion. If desired, abrasion testing may be performed utilizing the parent aggregate from each source. Historical abrasion values may be supplied on sources provided the testing was conducted within the past (12) months.

Mineral Filler:

Mineral Filler, required by job mix formula, shall be Type I or Type II Portland cement conforming to the requirements of ASTM C 150. The mineral filler shall be added by weight of dry aggregate as specified by the job mix formula.

Water:

The water used shall be free of any injurious impurities. Potable water obtained from public utility distribution lines will be acceptable. The contractor shall state the source of water.

Additives:

Additives may be used to accelerate or retard the breaking of the emulsified asphalt and the set time of the micro-surfacing mixture, or to improve the resulting finished surface.

Appropriate additives, and their applicable use range, shall be specified in the job mix formula.

Job Mix Formula (JMF):

All materials shall be pre-tested in a certified laboratory, selected by the City, as to the materials suitability for use in the micro-surfacing material. At least seven (7) working days before the micro-surfacing placement commences, the contractor shall provide a job mix formula (JMF) which has been sealed, signed, and dated by a professional engineer registered in the State of Arizona, and experienced in the preparation of micro-surfacing mix designs and approved by the Engineer covering the specific materials proposed for use on the project.

Compatibility of the aggregate, mineral filler, water, additives and polymer modified emulsified asphalt shall be evaluated during the mix design process.

All the materials used in the job mix formula shall be representative of the materials proposed by the contractor for use on the project. The MJF must be approved by the Engineer prior to the start of micro-surfacing production. After the JMF has been approved, no material substitution will be permitted unless approved by the Engineer

In addition to the other requirements stated herein, the JMF shall conform to the requirements of Table 5.

TABLE 5		
PROPERTY	TEST METHOD	REQUIREMENT
Residual Asphalt Content Type II		7.5%-13.5% by weight of dry aggregate
Residual Asphalt Content Type III		6.5%-12.0% by weight of dry aggregate
Mineral Filler	---	0.1%-2.0% by weight of dry aggregate
Additive	---	As required for mix properties
Water	---	As required for mix properties
Mix Time @ 77°F	ISSA TB-113	Controllable to 120 seconds minimum
Consistency	ISSA TB-106	2.5 – 3.0 cm
Wet Track Abrasion Loss (1 hour soak)	ISSA TB-100	50 g/ft ² maximum
Wet Track Abrasion Loss (6 day soak)	ISSA TB-100	75 g/ft ² maximum
Wet Stripping	ISSA TB-114	90% minimum
Wet Cohesion, @ 30 minutes minimum (Set)	ISSA TB-139	12 Kg/cm minimum
Wet Cohesion, @ 60 minutes minimum (Traffic)	ISSA TB-139	20 Kg/cm minimum

Loaded Wheel Sand Adhesion	ISSA TB-109	50 g/ft ² maximum
Lateral Displacement	ISSA TB-147	5% maximum
Specific Gravity after 100 cycles of 125lb	ISSA TB-147	2 10 maximum

The JMF shall include test results showing the quantitative effects of moisture content on the unit weight of the aggregate (bulking effect) according to AASHTO T 19.

The JMF must show the recommended proportions of aggregate, mineral filler, water, additive(s), and polymer modified emulsified asphalt; and how the proportions are based (dry aggregate weight, total mix, etc.). The JMF must also show the allowable production tolerance for residual asphalt content based on a +/- 1% production tolerance of the emulsified asphalt.

Equipment:

All equipment, tools, and machines used in the application of microseal shall be maintained in satisfactory working condition at all times.

Proportioning Devices:

Individual volume or weight controls for proportioning mix components shall be provided and properly labeled. Proportioning devices shall be capable of determining the material output at any time

The proportioning of emulsion, mineral filler, water and additives shall be tied directly to the aggregate flow.

Mixing Equipment:

The machine shall be equipped with a water pressure system that provides a water spray immediately ahead of and outside the spreader box.

Spreading Equipment:

The mixture shall be agitated and spread uniformly in the surfacing box by means of twin-shafted paddles or spiral augers fixed in the spreader box. A front seal shall be provided to ensure no loss of the mixture at the road contact point. The rear seal shall act as a final strike-off and shall be adjustable. The spreader box and rear strike-off shall be so designed and operated that a uniform consistency is achieved and a free flow of material is provided to the rear strike-off. The spreader box shall have suitable means provided to side shift the box to compensate for variations in the pavement geometry.

The spreading equipment shall be maintained free from buildup of the mixture on the paddles or side walls.

Secondary Strike-Off:

A secondary strike-off shall be provided to improve surface texture. The secondary strike-off shall be adjustable to match the width of the spreader box and allow for varying pressures to control the surface texture.

Rut-Filling Equipment:

When required, micro-surfacing material may be used to fill ruts or other depressions in the existing surface. Ruts shall be filled independently with a rut-filling box. Ruts may require multiple applications with the rut-filling box to restore the cross-section. All rut-filling material should cure under traffic for at least twenty-four hours before additional material is placed.

Calibration:

Each mixing unit to be used in the performance of the work shall be calibrated in the presence of the Engineer prior to the start of micro-surfacing production. Previous calibration documentation covering the exact materials to be used may be acceptable, provided that no more than 60 days have lapsed. The documentation shall include an individual calibration of each material at various settings that can be related to the machine metering devices. Any component replacement affecting material proportioning requires that the machine be recalibrated. No machine will be allowed to work on the project until the calibration has been completed and/or accepted. The ISSA Inspector's Manual describes a method that may be used for machine calibration.

Weather Limitations:

The micro-surfacing shall only be placed when there is no rain, the air temperature is at least 45°F, and the surface temperature is 50°F or higher. No micro-surfacing shall be applied when there is danger that the finished product will freeze before 24 hours. The mixture shall not be applied if weather conditions prolong opening to traffic beyond a reasonable time.

At any time, the Engineer may require that the work cease or that the work day be reduced in the event that weather conditions, either existing or expected, are anticipated to have an adverse effect upon the micro-surfacing.

Construction Requirements**Surface Preparation:**

Immediately prior to applying the micro-surfacing, the surface shall be cleared of all loose material, dirt, vegetation, and other objectionable material. The Contractor shall sweep all areas to be surfaced with PM-10 efficient type self-propelled pick up sweeper. All areas will be swept to the satisfaction of the inspector prior to surfacing. If water is used, cracks shall be allowed to dry thoroughly before applying micro-surfacing.

A paint binder (tack coat) of asphaltic emulsion shall be applied to all Portland cement concrete surfaces when there is a contract item for the work or when the

work is required in these special provisions. The asphaltic emulsion for paint binder (tack coat) shall be grade SS 1, SS 1h, CSS1 or CSS1h and shall conform to the provisions of AASHTO M-140 or AASHTO M 208 "Emulsified Asphalts". The asphaltic emulsion shall be mixed in the proportion of one part of emulsion (which contains up to 43 percent water) to 3 parts water. The mixture shall be applied at the approximate rate of 0.04 -0.08 g/yd². When asphaltic emulsion is used as a paint binder (tack coat), micro-surfacing shall not be placed until the asphaltic emulsion has cured.

Protection of Existing Features:

The contractor shall take all necessary precautions to prevent micro-surfacing or other materials used in the work from entering or adhering to manholes, valve boxes, catch basins, etc. immediately after surfacing, the contractor shall clean and leave any such items in a condition satisfactory to the inspector.

Mixing and Application:

The micro-surfacing mixture shall be proportioned in accordance with the JMF.

The contractor shall determine and document the stockpile moisture content daily, and adjust the operation accordingly.

The micro-surfacing mixture shall be of the desired consistency when deposited in the spreader box and nothing more shall be added to it. The mixing time shall be sufficient to produce a complete and uniform coating of the aggregate. No lumps or unmixed aggregate shall be permitted. The mixture shall be discharged into the spreader box at a sufficient rate to maintain an ample supply across the full width of the spreader box at all times. Overloading of the spreader box shall be avoided.

The micro-surfacing mixture shall possess sufficient stability so that premature breaking of the emulsified asphalt in the spreader box will not occur. The mixture shall be homogeneous during and following mixing and spreading. It shall be free of excess water or emulsion, and free of segregation of the emulsion and aggregate fines from the coarser aggregate. Spraying of additional water into the spreader box is not allowed.

The surface of the existing pavement shall be pre-wetted by fogging with water ahead of the spreader box. Water used in pre-wetting the surface shall be applied such that the entire surface is damp with no apparent flowing water in front of the spreader box. The rate of application of the fog spray shall be adjusted as the ambient temperature, surface texture, humidity, and dryness of the pavement change.

The surface texture variation of the existing pavement throughout the work will dictate the actual spreading rates. The strike-off squeegee shall be adjusted to provide a micro-surfacing thickness which will completely fill the surface voids and provide an additional thickness not exceeding one and one-half times the largest top-size stone. The requirement for an additional thickness not exceeding one and

one-half times the largest top-size stone does not apply to rut filling operations, as these depths may vary significantly due to the surface irregularities.

The mixture shall be uniform and homogeneous after placing on the surfacing and shall not show separation of the polymer modified cationic asphalt emulsion and aggregate after setting. The completed surface shall be of uniform texture and free from ruts, humps, depressions, or irregularities. No streaks, such as those caused by oversize aggregate, will be left in the finished surface. If excess oversized aggregate develops, the job will be stopped until the contractor can prove the situation has been corrected. Adequate means shall be provided to protect the micro-surfacing from damage by traffic until such time that the mixture has cured sufficiently so that the micro-surfacing will not adhere to or be picked up by the tires of vehicles.

Placement of the micro-surfacing shall cease a minimum of one hour before the expiration of the road closure hours as specified in Section IV "Traffic Control" of these special provisions, unless the Contractor proves to the satisfaction of the Engineer that the surface will be ready for unrestricted traffic at the expiration of the road closure hours.

Any skips, lumps, or tears in the finished product will not be allowed

Joints:

No excessive buildup, untreated areas, or unsightly appearance shall be permitted on longitudinal or transverse joints. The contractor shall provide suitable width spreading equipment to produce a minimum number of longitudinal joints throughout the work. When possible, longitudinal joints shall be located within one foot of the center of a lane or within one foot of the centerline between two adjacent lanes. A four inch maximum overlap will be permitted on longitudinal joints. Partial width passes shall only be used when necessary and shall not be the last pass of any paved area. Longitudinal joints shall have no more than a 1/4 inch difference in elevation when measured by placing a 10-foot straightedge over the joint.

Care shall be taken to ensure straight lines along curbs and shoulders. No run off on these areas will be permitted.

Construction joints shall be neat in appearance and shall be tapered or feathered to conform to the existing surfacing. All excess material shall be removed from the surface, upon completion of each run.

Handwork:

Areas which cannot be accessed by the mixing machine shall be surfaced using hand squeegees to provide complete and uniform coverage. If necessary, the area to be hand worked shall be lightly dampened prior to mix placement. Handwork shall exhibit the same finish as that applied by the spreader box.

Sampling and Testing Requirements:

Material Sampling and Quality Acceptance: The minimum acceptable sampling frequency shall be at the Engineers direction and shall include:

- Polymer Modified Cationic Asphalt Emulsion
- Mineral Aggregate
- Micro-surfacing Mixture

Polymer Modified Cationic Asphalt Emulsion shall be tested for compliance to the applicable specification in this special provision. At the Engineers discretion the polymer modified cationic asphalt emulsion can be tested for compliance with selected performance indicating portions of the specification, and shall conform to the requirements of Table 2. The mineral aggregate shall be tested for gradation and Sand Equivalent in accordance with these special provisions, and shall conform to the production requirements of Table 3.

The micro-surfacing material maybe sampled and tested for residual asphalt content in accordance with AASHTO T164. The residual asphalt content, by weight of dry aggregate, shall be within the allowable production tolerance as presented in the JMF.

Prior to the start of micro-surfacing production, the Engineer shall obtain a representative sample of mineral aggregate for testing. The material shall be tested for gradation in accordance with these special provisions, and shall conform to the production tolerances shown in Table 3. The sand equivalent, fractured coarse aggregate particles, and un-compacted void content shall conform to the requirements of Table 4. If the mineral aggregate does not meet these requirements, production shall not begin until the mineral aggregate is in compliance with these requirements.

Utility Adjustments:

All City and private utility facilities located within the roadway prism must be adjusted to grade as a result of Microseal operations/applications. Adjustments shall be made as outlined on the Bid Tab and in the special provisions.

Sampling and Testing Requirements:

Should testing indicate results not meeting these requirements, operations shall cease and the contractor shall have the option of providing a new JMF or correcting the deficiencies.

Non-Compliance

If any two successive tests fail on the stockpile material or emulsion, the job shall be stopped. It is the responsibility of the Contractor, at his own expense, to prove to the City of Glendale that the conditions have been corrected.

Sampling:

Samples of polymer modified cationic asphalt emulsion shall be obtained from the job site storage tank or the application truck storage tank. Aggregate samples shall be obtained from the project stockpile. The inspector shall observe the sampling of one (1) gallon of the emulsion and a representative sample mineral aggregate. Contractor shall provide the samples and container to the inspector. Sampling of the polymer modified cationic asphalt emulsion shall be in accordance with AASHTO T 40. Sampling of the mineral aggregate shall be in accordance with AASHTO T 2.

Samples of the micro-surfacing material shall be obtained from the pug mill discharge prior to the micro-surfacing material entering the lay down box and shall be of adequate size to fabricate all test specimens from one sample.

The Engineer or his representative shall be permitted to take samples of materials from the project at any time. The City may elect to perform testing on the samples to verify compliance of the materials with the Specifications.

Testing shall be undertaken by the Engineer whenever deemed necessary. The Engineer, or his representative, may suspend the application of micro-surfacing whenever changes in the materials or quality of the applied micro-surfacing materials are noted. Work shall resume only when the noted deficiencies are corrected to the satisfaction of the Engineer. When work is suspended for this reason, samples will be taken immediately.

The Engineer may send samples to a testing laboratory. Testing will be at the City's expense unless deficiencies are verified by the testing. The contractor shall reimburse the City for the cost of any testing required by deficient materials or application of the micro-surfacing material.

Procedure:

The contractor shall perform the service in a safe, acceptable, workmanlike manner. Personnel shall be experienced, knowledgeable and capable in all aspects of performing the service. The same personnel that start the project shall remain on the project for the life of the project.

The equipment shall be in good repair and serviceable to operate in a reliable and safe manner. Any equipment or piece of equipment that fails to produce the desired surface shall be repaired and/or replaced by the Contractor at no cost to the City. The Public Works Operations Manager or their designee shall determine if the equipment and/or finished product are in compliance.

Contractor shall sand intersections as directed by the Engineer to allow traffic to cross freshly placed micro-surfacing at intersections, business entrances/exits and other locations that cannot, in the estimation of the Engineer, be completely closed to traffic. Sand material will be the same aggregate used in the micro-surfacing mixture.

The Contractor shall be responsible for all clean-up of the work areas and staging areas. The Contractor shall be responsible for covering and uncovering all structure covers, such as manholes, valve and monument covers. All streets (full width and gutters) shall be swept by mechanical means no sooner than 24hrs after micro-surfacing placement is complete.

At the end of each day's production, the contractor will provide to the Inspector a report containing the following information:

- Tons of dry aggregate consumed that day
- Tons of emulsion consumed that day; and

- Footage covered that day. This report shall be received no later than 10:00 a.m. of the following day.

Schedule of Work:

Work shall be performed during the hours of 8:30 a.m. to 4:00-p.m. The contractor shall provide schedules every Thursday for the following week's work. The schedule shall include, but not be limited to the following: A map indicating the streets to be sealed each day including limits, the sequence of streets for each day's work and which side of street to be sealed for each day's work.

Punch List Items:

All punch list items must be completed within 30 days after punch list is received by contractor from the City's representative.

Water:

Cost of water, if furnished by the City systems, will be borne by the City. The Contractor will have to arrange for the water to be metered.

Area Omissions:

All areas temporarily omitted by the Contractor during normal operations shall be logged and a list of the missed areas (addresses or intersections) given the inspector before the start of the next day's work.

Clean Up:

Clean-up shall include the removal of microseal material from manhole covers, valve covers, survey monuments, gutters, curbs, etc., in the job area on a daily basis. Clean up shall also include any materials used to clean up the surface treatment. The contractor and the inspector shall conduct a pre-final for each stockpile prior to commencing work in the next scheduled stockpile location.

The Contractor shall sweep, with PM-10 efficient type self-propelled pickup sweeper, all areas surfaced, no sooner than 24 hours after application. All areas will be swept to the satisfaction of the inspector before final acceptance of the project will be given. (**If additional sweeping is required it shall be considered incidental to the project**).

Repair of Early Distress:

If bleeding, raveling, delaminating, rutting, Or wash hoarding occurs within 60 days after placing the micro-surfacing, the Contractor shall diligently pursue repairs by any method approved by the Engineer. The Contractor shall not be relieved from maintenance until repairs have been completed.

Patching:

Areas that require patching shall be full lane width using Type II micro-surfacing All micro-surfacing repair work shall be completed prior to moving to the next area to be placed. All traffic affected by this construction shall be regulated in accordance with the City of Phoenix -Traffic Barricade Manual.

Streets:

The streets to have micro-surfacing applied are listed in the Attachments. The estimated areas include cul-de-sacs, elbow turns and curb returns. The City reserves the right to make additions or deletions to the original quantity amount, and/or to the streets or number of streets, at the price bid per square yard.

Measurement and Payment:

Measurement and Payment will be made in accordance with unit prices set forth in the Schedule of Bid Items and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in placing micro-surfacing, complete in place, including asphaltic emulsion (paint binder and/or tack coat), testing for and furnishing JMF, cleaning the surface, furnishing added water and set-control additives, and protecting the micro-surfacing until it has set, as shown on the plans, as specified in these special provisions, and as directed by the Engineer.

ITEM 8 REMOVE & DISPOSE OF CONCRETE SIDEWALK**ITEM 9 REMOVE & DISPOSE OF CONCRETE CURB AND GUTTER****ITEM 10 REMOVE & DISPOSE OF CONCRETE VALLEY GUTTER**

General: These items are for saw cutting, removal and proper disposal of the items listed above. The work for these items shall comply with MAG Section 350 except as modified herein.

Disposal: Items identified to be removed shall become the property of the Contractor and shall be legally disposed of by the Contractor. The disposal of all waste materials removed under these items shall be the responsibility of the Contractor. The disposal site shall be approved by the City.

Measurement and Payment: Measurement and Payment for the saw cutting, removal and disposals will be made in accordance with unit prices set forth in the Schedule of Bid Items. Such payments shall include full compensation for furnishing all labor, material, tools and equipment and accomplishing the work in conformance with the contract documents.

ITEM 11 6' CONCRETE SIDEWALK PER MAG DTL 230**ITEM 12 CONCRETE CURB & GUTTER PER MAG DTL 220-1 TYPE A****ITEM 13 COCNRETE VALLEY GUTTER PER MAG DTL 240**

General: This item is for concrete sidewalk, curb and gutter, and concrete valley gutter. The work for these items shall conform to MAG Section 340.

Measurement and Payment: Measurement and payment will be made in accordance with the unit prices as set forth in the Schedule of Bid Items. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents.

ITEM 14 OBLITERATE EXISTING PAVEMENT MARKINGS

General.

The contractor shall remove all existing thermoplastic pavement markings prior to application of slurry seal by ultra-high pressure water (36,000 P.S.I.). This removal method shall be done in conformance with E.P.A. requirements. If the removal of striping causes a depression of 1/8 inch or greater in depth in the pavement surface, the contractor shall seal the area with slurry per M.A.G. Standard Specifications 713 and 715, Type Two.

Measurement and Payment:

Measurement and payment will be made in accordance with the unit prices as set forth in the Schedule of Bid Items. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents.

ITEM 15 REFORMED PAVEMENT MARKING ARROWS

ITEM 16 PREFORMED PAVEMENT MARKING RXR

ITEM 17 PREFORMED PAVEMENT MARKING SPEED TABLES

ITEM 18 WHITE STRIPE 60MIL THERMOPLASTIC 4" EQUIVALENT

ITEM 19 WHITE STRIPE 90MIL THERMOPLASTIC 4" EQUIVALENT

ITEM 20 YELLOW STRIPE 60MIL THERMOPLASTIC 4" EQUIVALENT

General:

The work under this section consists of the contractor furnishing all materials, preparing the pavement surface and installing the pavement markings. All pavement marking materials shall be approved by the City of Glendale Transportation Department prior to installation.

The contractor shall contact the City of Glendale Transportation Department (phone number (623-930-2940) a minimum of 72 hours in advance of striping lay-out to obtain the necessary lane closure permits.

The contractor shall lay-out all striping and markings for the City of Glendale Transportation Department review and approval, a minimum of two (2) working days before installation.

All newly paved or over-lay roadways shall first be striped in water based paint and then re-striped with thermoplastic markings a minimum of 30 days after final paving. (See City of Glendale water based paint specification for material type and installation)

Roadway striping shall not be done on weekends or holidays unless permission is granted in advance by the City Transportation Director, a minimum of two working days before installation.

All pavement striping dimensions are to face of curb and center of stripe, or the center of double stripes.

Marking Removal:

The contractor shall remove all existing pavement marking and striping in conflict with the final striping plan, by ultra high pressure water (36,000 P.S I.) This removal method shall be done in conformance with E.P.A requirements. If the removal of striping causes a depression of 1/8 inch or greater in depth the pavement surface, the contractor shall seal the area with slurry per M.A.G. Standards Specifications 713 and 715, Type Two. Covering existing markings with black paint, tar or any other substance does not constitute line removal and will not be approved.

Lane Lines and Centerline

Application of the white lane line and yellow centerline striping shall be performed in accordance with Arizona Department of Transportation (ADOT) Standard Specifications 704. The application equipment shall be truck mounted per ADOT Standard Specification 704-3.01.

Materials for white lane line and yellow center line striping shall be in accordance with ADOT Standard Specification 704 with the exception that the material shall be Alkyd Thermoplastic. All long striping shall be spray type and be applied at a thickness of 60 mils.

All yellow and white broken lane lines shall have a common start point and end cycle length, so as to be restriped simultaneously, using a common cycle length on both sides of the truck carriage. The cycle length is to be 40 feet with a 10 foot long line and 30 foot space between lines.

Crosswalks and Stop Bars.

Installation for striping all stop bars and crosswalks shall be in accordance with Section 704 of the ADOT Standard Specification, with the exception that the material shall be Alkyd Thermoplastic. The crosswalk and stop bars shall be the extruded type and applied at a thickness of 90 mils.

Turn Arrows:

Installation and material for left and right turn arrows shall be in accordance with Section 705 of the ADOT Standard Specifications. Material to be 3M Sta-Mark

Series SMS-5730 or approved equal. Apply 3M contact cement, E-44 or approved equal, to the roadway for the installation of all arrows.

Raised Pavement Markings:

Raised pavement markers shall be in accordance with Section 706 of the ADOT Standard Specifications. Material to be Stimsonite 911 raised pavement markers with un-tempered glass lens, or approved equal. Raised pavement markers shall be considered subsidiary to pavement markings

A double sided blue raised pavement marker shall be installed at each fire hydrant in accordance with City of Glendale Standard Detail G-650 and shall be considered subsidiary to pavement markings

All striping for the Slurry Seal Overlay Program shall be replacement of the existing striping as it exists prior to obliteration. Layout shall be approved by the City prior to installation

Measurement and Payment:

Measurement and payment will be made in accordance with the unit prices as set forth in the Schedule of Bid Items. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents.

The contractor is responsible for layout of all pavement markings. Pavement markings shall be approved by the City prior application of the final product. Pavement markings shall be the same as existing markings unless indicated otherwise. Pavement drawings for overlay streets are schematic only. The contractor shall follow all dimensions, details and standards per MUTCD for installation.

ITEM 21 TRAFFIC CONTROL

All traffic affected by this construction shall be regulated in accordance with the City of Phoenix "Traffic Barricade Manual", and these Special Provisions. The following traffic restrictions are minimum requirements throughout the construction period:

All traffic restrictions listed herein are to supplement the City of Phoenix "Traffic Barricade Manual," and are not intended to delete any part of the manual. All reference in the "Traffic Barricade Manual" to "arterial" and/or "collector" streets shall mean "arterial and/o major arterial" streets and are referred to as "major" streets in the, following sections.

It is the preference of the City to avoid weekend construction work. Contractor must request one (1) week in advance from the City of any intended weekend work. The City's Transportation Director and Project Manager will determine if such work shall be permitted. Contractor shall notify public a minimum of three (3) days prior to performing any authorized weekend work.

A minimum of two travel lanes (one for each direction) shall be maintained open to traffic at all times on all major streets. All work that enters or crosses a major street must be done at times other than 6:00 a.m. to 8:30 a.m., and 4:00 p.m. to 7:00 p.m.

A travel lane shall be defined as twelve (12) feet of roadway with a safe motor vehicle operating speed of twenty-five (25) miles per hour.

A travel lane will not be considered as satisfactorily open to traffic until it has been graded reasonably smooth and is paved. This shall be considered temporary pavement and shall be removed completely before proceeding with final surfacing.

The Contractor shall provide and maintain all necessary traffic controls and must provide flashing arrow boards to protect and guide traffic for all work in the construction area. Additionally, the Contractor shall provide and maintain message boards (VMS) for arterial work to inform traffic of alternate routes. The message boards shall be in place and operational one (1) week in advance of commencement of work. Final locations will be approved by the City's Transportation Department.

Intersection area shall be defined as all of the area within the right-of-way of intersecting streets, plus two-hundred fifty (250) feet beyond the center of the intersected streets on all legs of the intersection. The City may allow weekend intersection closures. The Contractor must coordinate any closure schedule and approval through the City's Transportation Director and Project Manager.

The Contractor shall maintain all existing traffic signs erect, clean and in full view of the intended traffic at all times. Street name signs at major street intersections shall be maintained erect at all times. If any signs interfere with construction, the Contractor shall notify the Inspector and the City Signs Supervisor at least 48 hours in advance for City forces to remove said signs. The Contractor shall be responsible for having all temporary traffic signs installed and maintained during construction. The Transportation Department will re-set all traffic and street name signs to permanent locations when notified by the Engineer that construction is complete.

Local access to all properties on the subject project shall be maintained at all possible times in the form of a safe and reasonable direct route to at least one of the above defined major streets. Whenever local access cannot be maintained, the Contractor shall notify the affected property owner or user and the Engineer at least one (1) week in advance. Contractors shall notify the City ten (10) working days prior to access restrictions.

The Contractor shall maintain pedestrian paths that meet ADA requirements at all times during the entire length of the project.

The Contractor shall prepare a traffic control plan for the project and submit it to the City Transportation Director for review and approval at least seven (7) working days before the pre-construction conference. The traffic control plan shall include flashing arrow-boards, barricades and signs, and shall address how local access to adjacent properties will be handled in accordance with the specifications herein. Any changes to the traffic control plan during construction shall be submitted to the City

Transportation Director for approval at least seventy-two (72) hours before implementation

Payment for this item shall be made at the contract lump sum-price for TRAFFIC CONTROL.

It is the City's desire to maintain one lane of traffic in each direction on minor streets whenever possible. Should it become imperative for the Contractor to close off a portion of any minor street or reduce the travel way to a single lane, he must obtain approval from the City Transportation Director three (3) business days prior to implementing a traffic control change. He must provide all the necessary signs to detour traffic and/or flagman to control traffic for a single lane. The maximum amount of time that the street may be closed is from 9:00 a.m. until 4:00 p.m.

Temporary lane markers (dividing same direction of travel lanes) shall be applied immediately following paving operations and prior to allowing public traffic on the segment.

Access:

The Contractor shall maintain local access to all side streets, access roads, driveways, alleys, and parking lots at all times and shall notify residents 48 hours in advance of any restrictions which will affect their access. The Contractor shall restore the access as soon as possible. If the primary access cannot be restored in a timely manner, the Contractor shall provide an alternative which shall be predetermined with the residents prior to imposing any restrictions. Any local street restrictions imposed shall be such that local area traffic circulation is maintained

Access shall be maintained to adjacent businesses at all times during their hours of operation. Properties having more than one point of access shall not have more than one access restricted for more than fourteen (14) calendar days at any given time. Access to adjacent driveways shall be provided during all non-working hours. Any business restrictions shall be coordinated with the affected business at least 48 hours prior to imposing restrictions.

The Contractor shall maintain local access to all side streets, access roads driveways, alleys and parking lots at all times and shall notify residents 48 hours in advance of any restrictions which will affect their access. The Contractor shall restore the access as soon as possible. If the primary access cannot be restored in a timely manner; the Contractor shall provide an alternative which shall be predetermined with the residents prior to imposing any restrictions. Any local street restrictions imposed shall be such that local area traffic circulation is maintained.

Access shall be maintained to adjacent businesses at all times during their hours of operation. Properties having more than one point of access shall not have more than one access restricted for more than fourteen (14) calendar days at any given time. Access to adjacent driveways shall be provided during all non-working hours. Any business restrictions shall be coordinated with the affected business at least 48 hours prior to imposing restrictions.

The Contractor shall ensure that all sidewalks on this project remain in compliance with all the issues outlined by the American Disabilities Act of 1990. All pedestrian-walking areas, whether paved or unpaved, shall be maintained open and safely usable at all times. Such measures as backfilling or ramping at a 12:1 slope to existing sidewalks, or providing alternate sidewalk areas adjacent to existing sidewalks may be used. In high pedestrian use areas, the Public Works Operations Manager or her designee may request temporary hard-surface walkways, and/or covered pedestrian walkways to be installed at no additional cost to the City.

The Contractor shall provide clean and safe school zones, crosswalks, and walkways for students attending nearby schools during all hours of school use. In addition to school zones and crosswalks, the Contractor shall maintain accessibility to all school bus routes during all hours of school use. The Contractor shall notify the school Principal(s) and the school administration office at least 48 hours prior to any restrictions; and shall restore access as soon as possible.

The Contractor shall maintain emergency vehicle access at all times.

The Contractor shall maintain access to all Parks during park hours. The Contractor shall coordinate with the Parks Department 48 hours or more prior to any restrictions, and shall restore access as soon as possible.

The Contractor shall coordinate or provide sanitation pick up for affected residents by relocating trash containers, or by providing alternative measures acceptable to the Solid Waste Division of the City Public Works Department. At any time project construction shall require the closure or disruption of traffic in any roadway, alley, or refuse collection easement such that normal refuse collection will be interrupted, the Contractor shall, prior to causing such closure or disruption, make arrangements with the City of Glendale Solid Waste Division in order that refuse collection Service can be maintained.

The Contractor shall maintain all existing bus stop locations on this project in a safe manner, or provide alternate bus stop locations and related directional signage as required by the Public Works Operations Manager or her designee.

Measurement and Payment:

Measurement and payment will be made in accordance with the unit prices as set forth in the Schedule of Bid Items. Such payment shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents.

ITEM 22 UNIFORMED, OFF DUTY LAW ENFORCEMENT OFFICER**General:**

The Contractor shall be required to provide a uniformed off-duty police officer to assist with traffic control whenever traffic in any one direction is restricted to one lane at a signalized major intersection or at locations if it should become necessary in the opinion Transportation Director or Designee. If the Contractor chooses to use a police officer at other locations during peak traffic hours or to assist with his other traffic control operations, the cost shall be included in the lump sum for Traffic Control and not paid out of hours allowed for Off Duty Law Enforcement Officer. All requests for off-duty officers will be made through the Glendale Police Department, Off Duty Work Administrator. The Contractor must provide evidence of workmen's compensation coverage before any officer will be permitted to work.

Measurement:

Measurement for payment of the uniformed off-duty Glendale Police Officer hours will be made by the actual number of man-hours used for traffic control at signalized major intersections or as approved by the Engineer. Because the quantity of hours is dependent on the Contractor's schedule of activities, the unit price bid for this item will be administered as a contingency bid item and any adjustment of hours will not be subject to the 20 percent limitation.

Payment:

Payment for the off duty Glendale police officer will be made at the contract unit price bid per hour for Uniformed, Off-Duty Law Enforcement Officer and shall include the net hourly rate of \$35.00 per police officer with a three (3) hour minimum. The net hourly rate shall be increased to include withholding for Federal, State, FICA, Medicare, Workmen's Compensation insurance and payroll administration costs.

ITEM 23 ALLOWANCE FOR CONSTRUCTION CONTINGENCIES**General:**

This item includes a lump sum contingency allowance. This allowance is for the sole purpose of reimbursing Contractor for any unforeseen issues not apparent at the time of bidding the work to be performed.

No work under anticipated for reimbursement under this Bid Item shall be initiated by the Contractor until Contractor, Engineer and the City of Glendale agree on a scope and cost to perform the additional work. The Contractor shall prepare and submit to Engineer a cost itemization and summary for the additional work. Engineer and City of Glendale shall review and approve prior to Contractor proceeding with additional work. Any portion of the stated sum not exceed remains the property of the City of Glendale.

Work under this section shall consist of any additional work identified by the City and Contractor due to construction activity. All work under this item shall be itemized as per MAG requirements and deducted from the set amount of \$80,000. All additional work under this item shall be approved by the resident Engineer and the City prior to commencing. All work under this section shall include full compensation for furnishing all labor, materials, tools, equipment and labor to accomplish the work in conformance with the contract documents

Measurement and Payment:

Measurement and Payment will be made on an individual basis per task as listed above and in accordance with unit prices set forth in the Schedule of Bid Items for ALLOWANCE FOR CONSTRUCTION CONTINGENCIES.

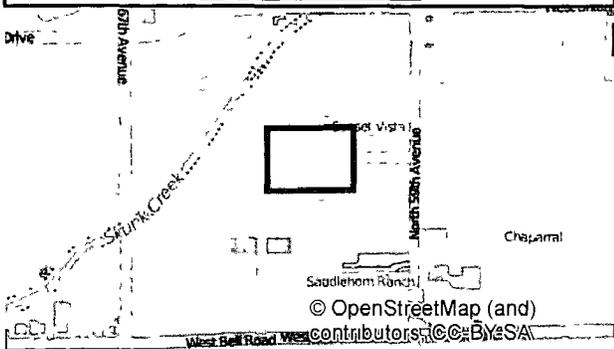
IMPROVEMENT EXHIBITS

IMPROVEMENT EXHIBIT

EXHIBIT 1 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

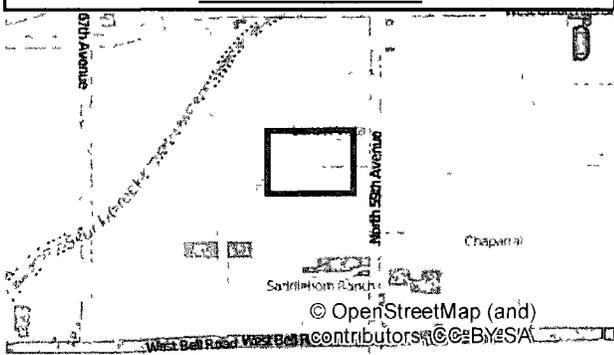


IMPROVEMENT EXHIBIT

EXHIBIT 2 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

- Surface Treatment
- Micro Seal
- Ramps Remove & Replace
- ▨ Asphalt Remove & Replace

Prepared For



Prepared By

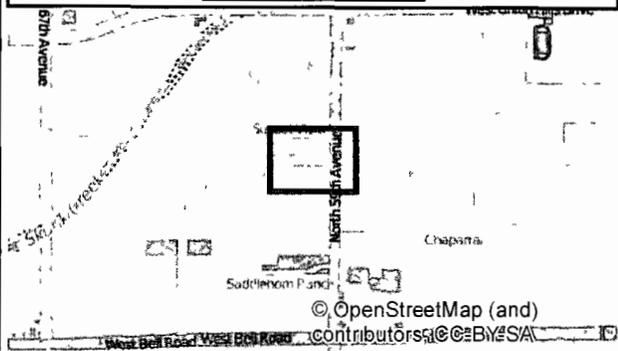
 Littlejohn

IMPROVEMENT EXHIBIT

EXHIBIT 3 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

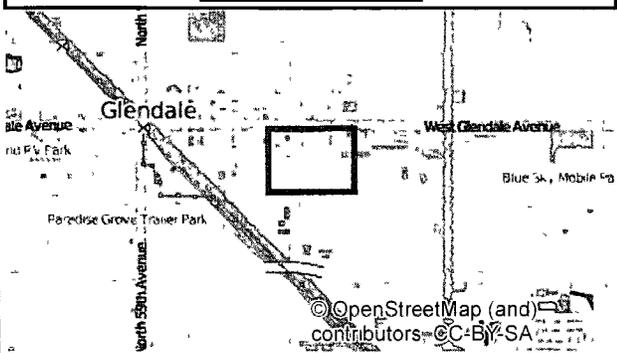


IMPROVEMENT EXHIBIT

EXHIBIT 4 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

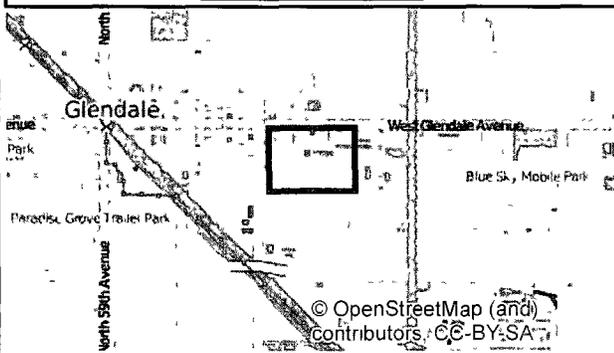


IMPROVEMENT EXHIBIT

EXHIBIT 5 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

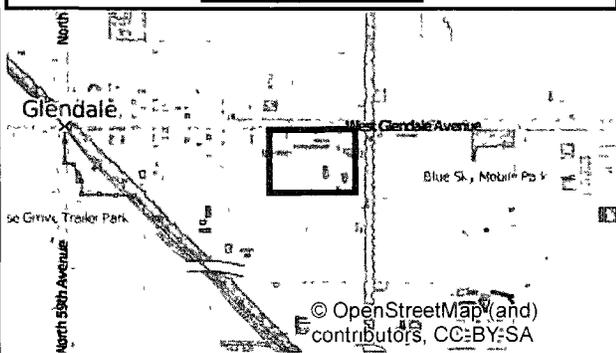


IMPROVEMENT EXHIBIT

EXHIBIT 6 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

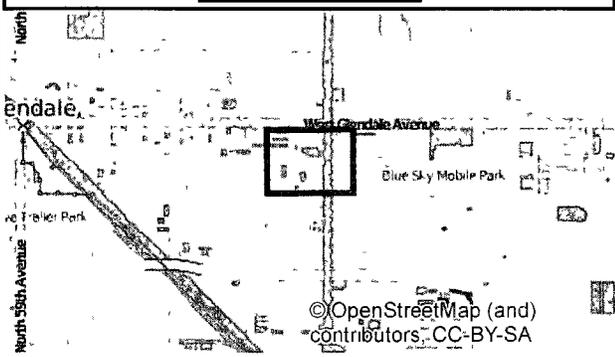


IMPROVEMENT EXHIBIT

EXHIBIT 7 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

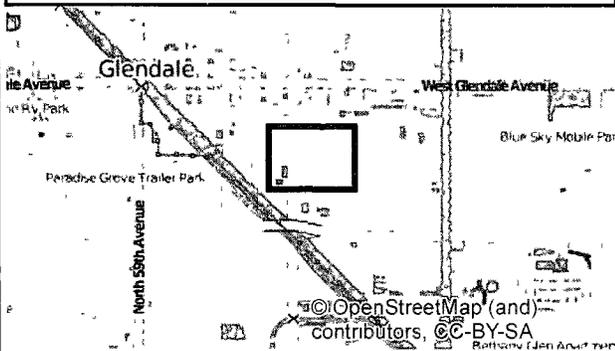


IMPROVEMENT EXHIBIT

EXHIBIT 8 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

- Surface Treatment
- Micro Seal
- Ramps Remove & Replace
- ▨ Asphalt Remove & Replace

Prepared For



Prepared By

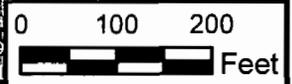


IMPROVEMENT EXHIBIT

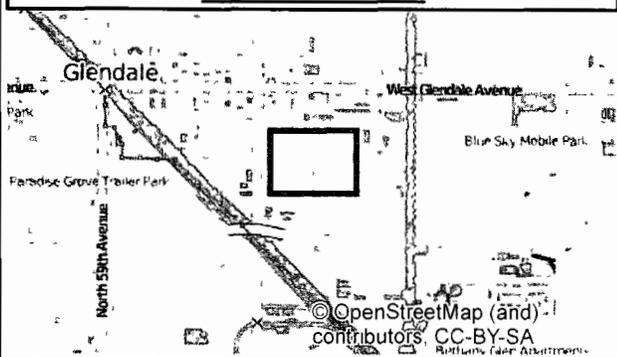
EXHIBIT 9 OF 62



Source: Esri, i-cubed, USDA, USGS, AEX, Ge
Aerogrid, IGN, IGP, and the GIS User Commu



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For

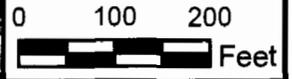


Prepared By



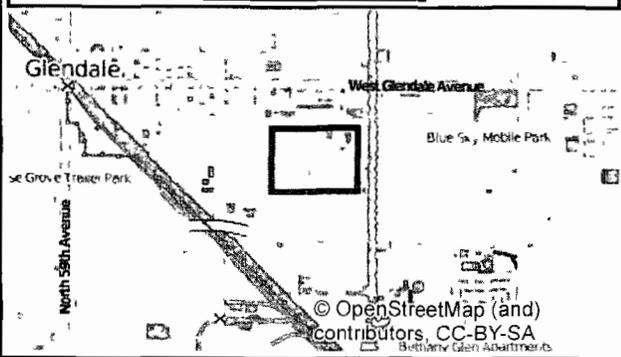
IMPROVEMENT EXHIBIT

EXHIBIT 10 OF 62



Source: Esri, i-cubed, USDA/USGS, AEX, GeoAerogrid, IGN, IGP, and the GIS User Community

VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

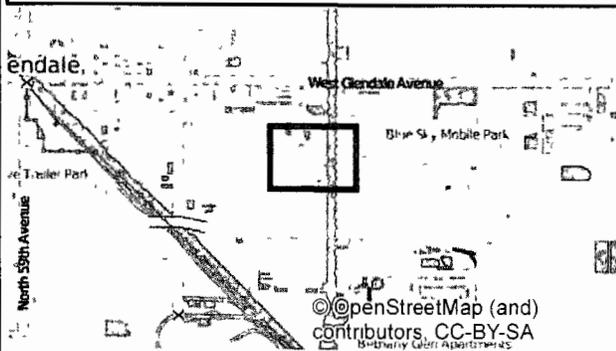


IMPROVEMENT EXHIBIT

EXHIBIT 11 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

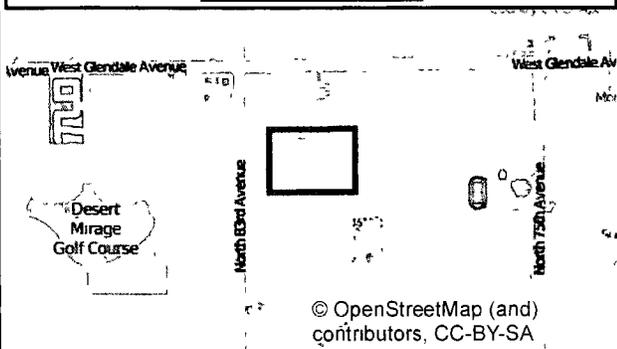


IMPROVEMENT EXHIBIT

EXHIBIT 12 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

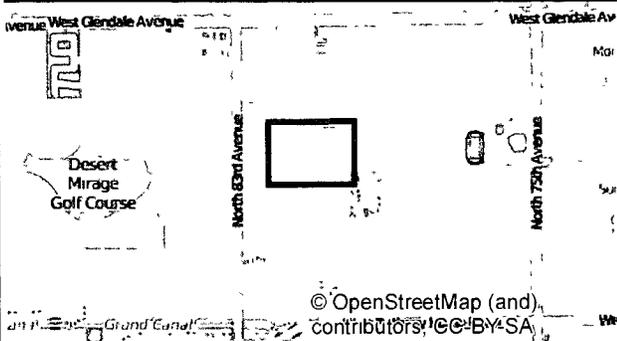


IMPROVEMENT EXHIBIT

EXHIBIT 13 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

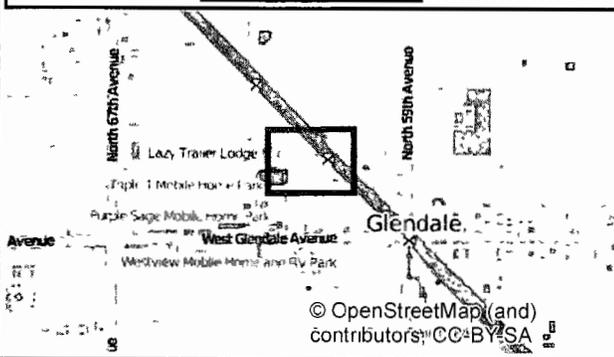


IMPROVEMENT EXHIBIT

EXHIBIT 14 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For

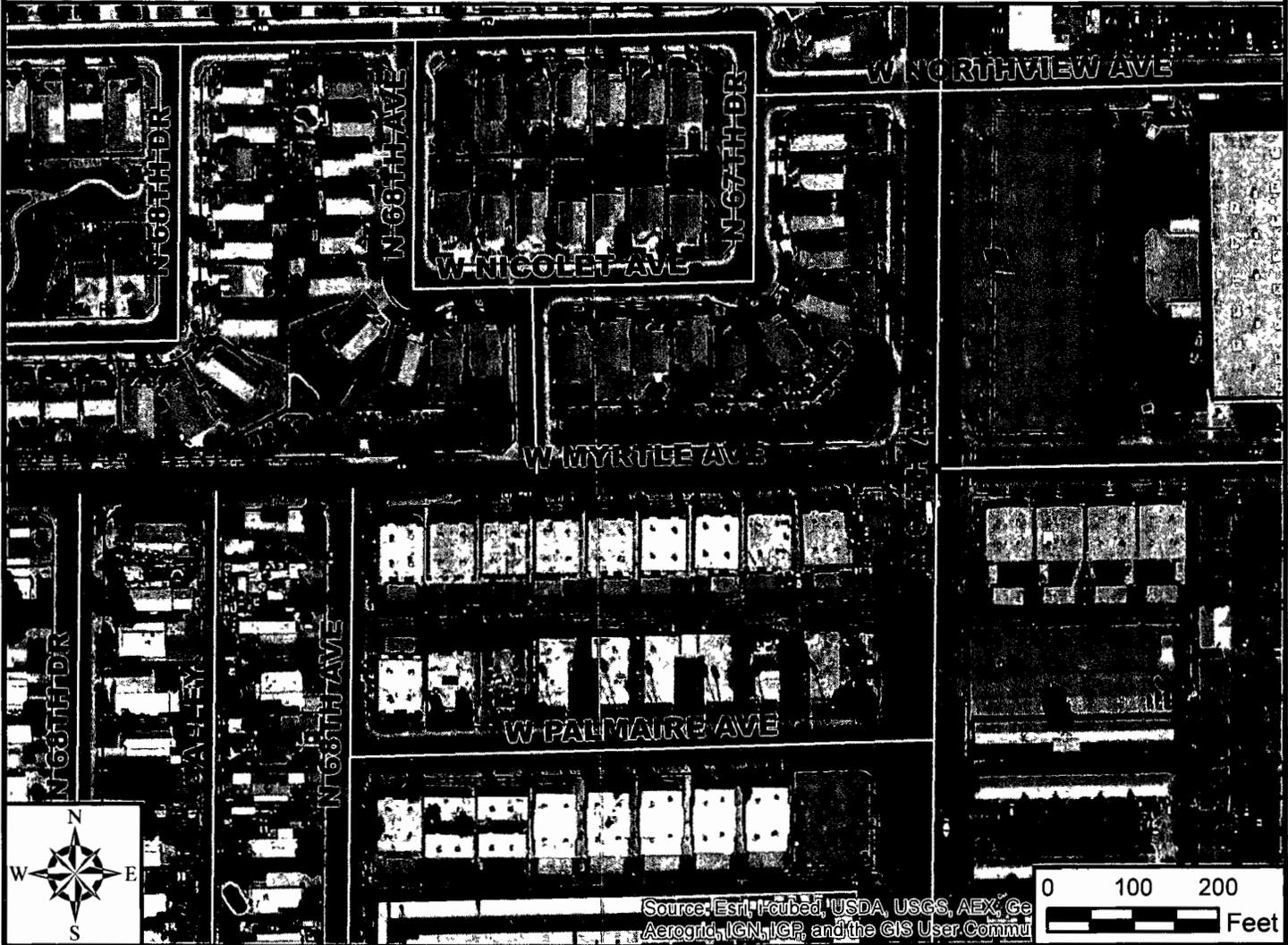


Prepared By

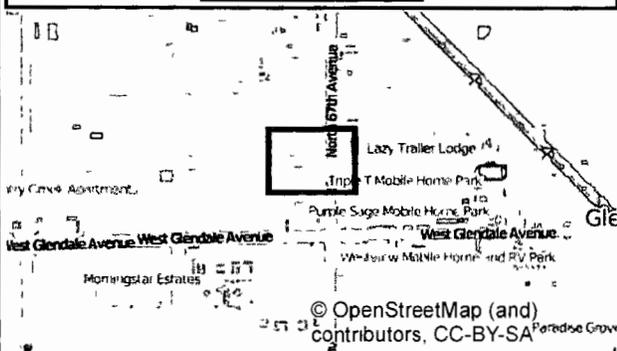


IMPROVEMENT EXHIBIT

EXHIBIT 16 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

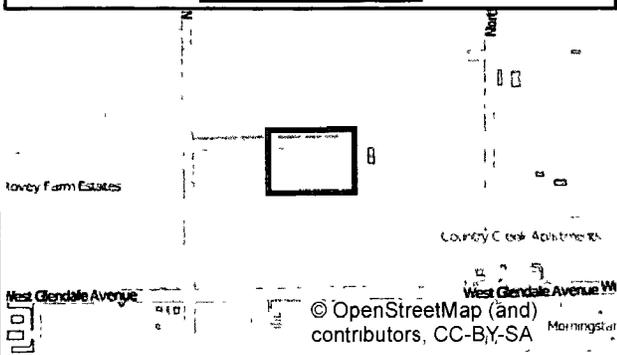


IMPROVEMENT EXHIBIT

EXHIBIT 17 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For

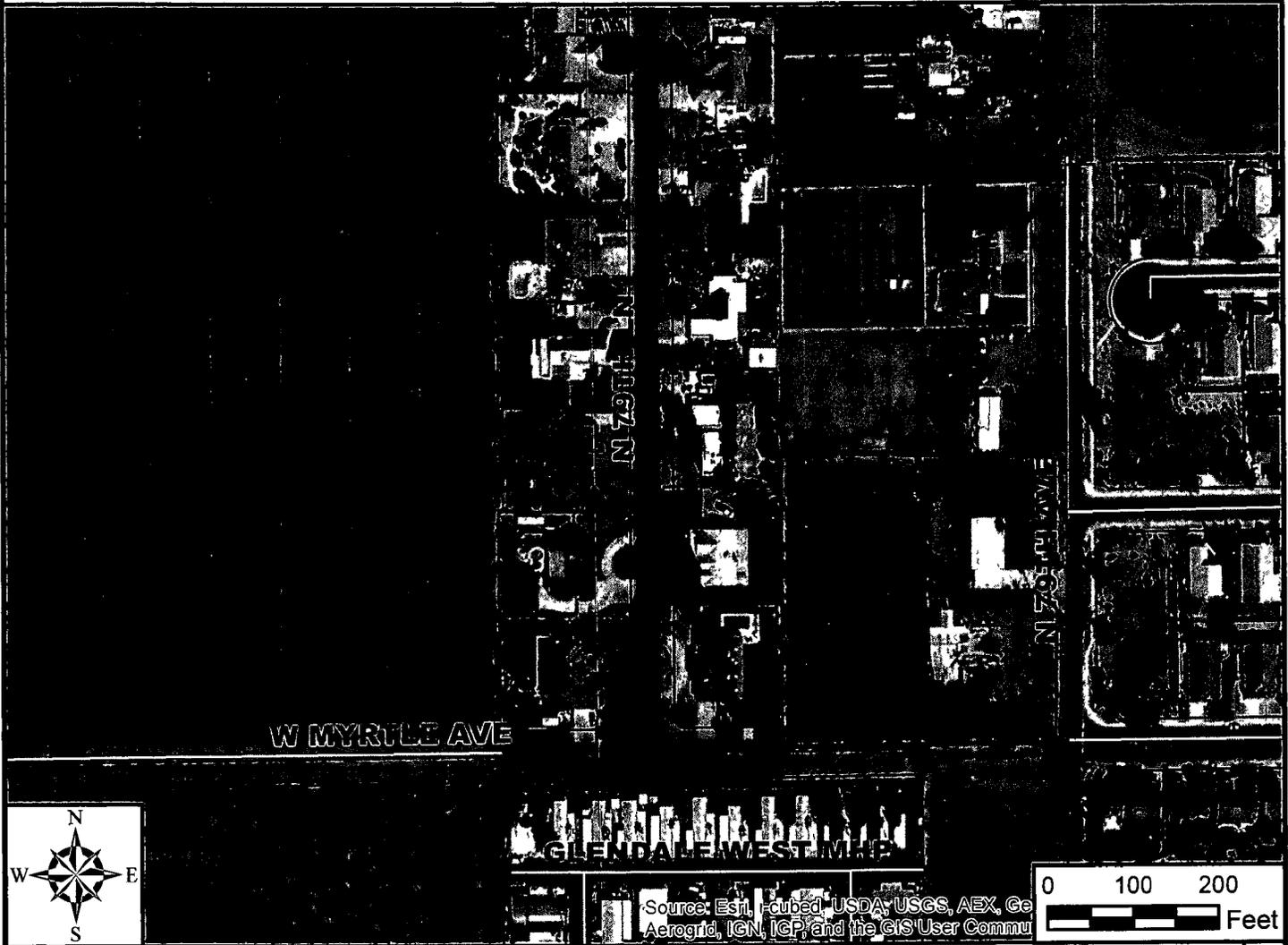


Prepared By

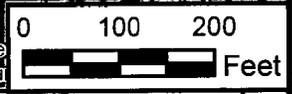


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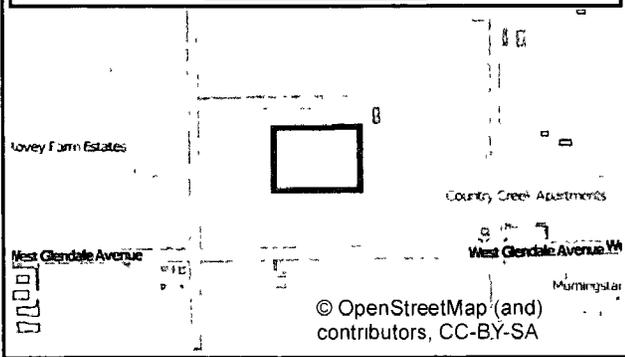
EXHIBIT 18 OF 62



Source: Esri, DeLorme, USDA, USGS, AEX, Geo
Aerogrid, IGN, IGP, and the GIS User Commu



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

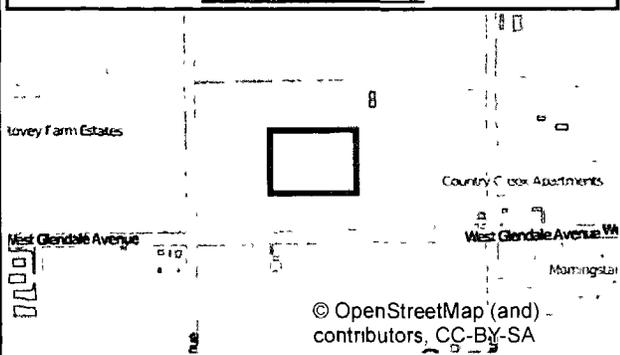


IMPROVEMENT EXHIBIT

EXHIBIT 19 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

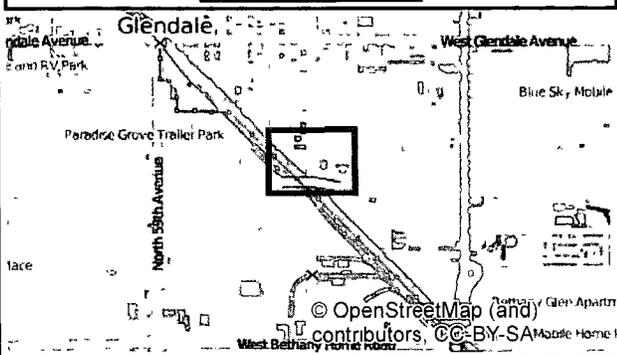


IMPROVEMENT EXHIBIT

EXHIBIT 21 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

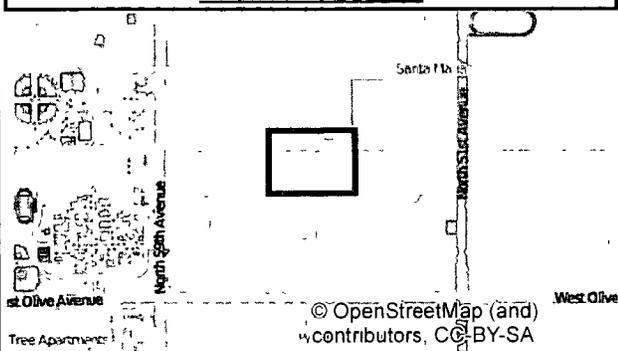


IMPROVEMENT EXHIBIT

EXHIBIT 22 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

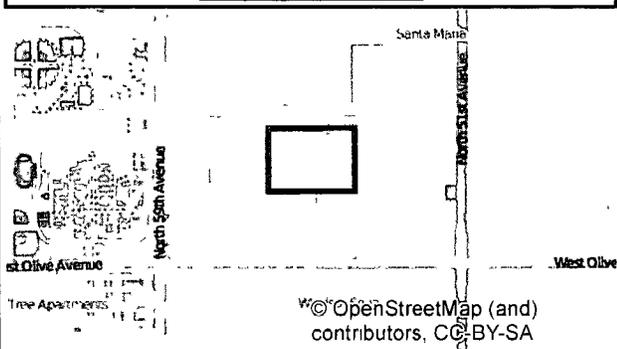


IMPROVEMENT EXHIBIT

EXHIBIT 23 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

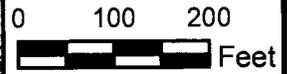


IMPROVEMENT EXHIBIT

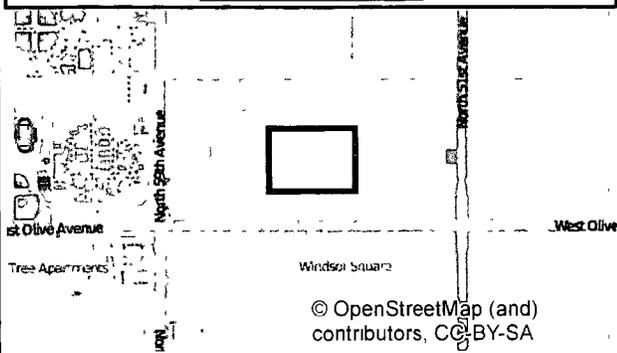
EXHIBIT 24 OF 62



Source: Esri, Imagery, USDA, USGS, AEX, GeoAerogrid, IGN, IGP, and the GIS User Community



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

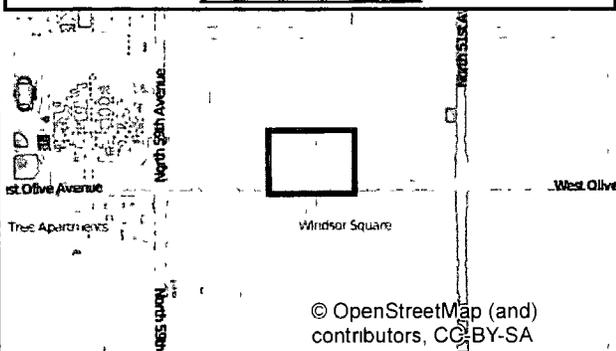


IMPROVEMENT EXHIBIT

EXHIBIT 25 OF 62



VICINITY MAP:



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CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

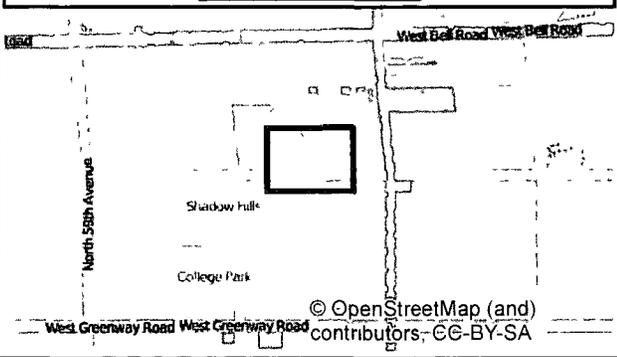


IMPROVEMENT EXHIBIT

EXHIBIT 26 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

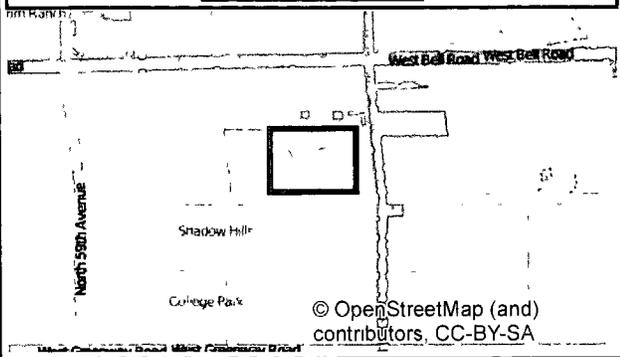


IMPROVEMENT EXHIBIT

EXHIBIT 27 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

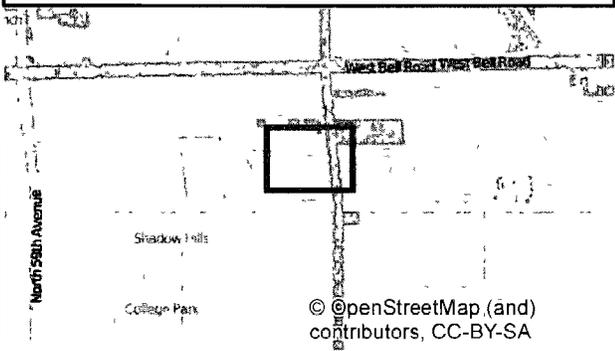


IMPROVEMENT EXHIBIT

EXHIBIT 28 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

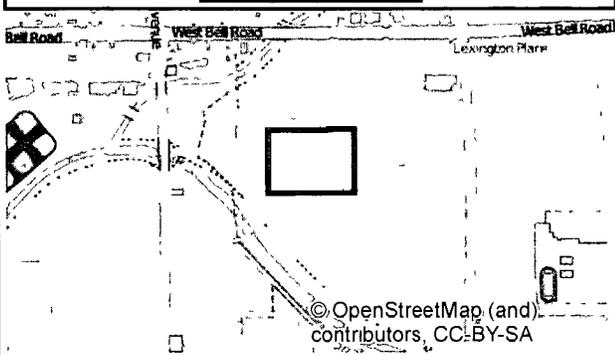


IMPROVEMENT EXHIBIT

EXHIBIT 29 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

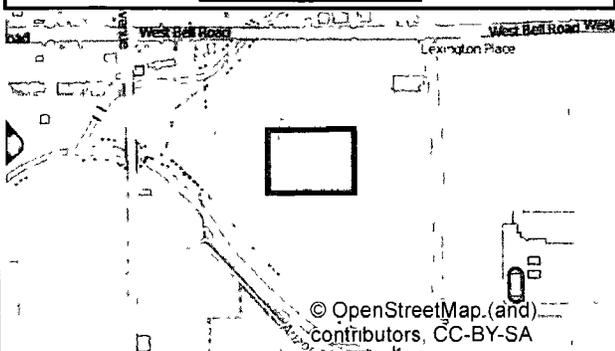


IMPROVEMENT EXHIBIT

EXHIBIT 30 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

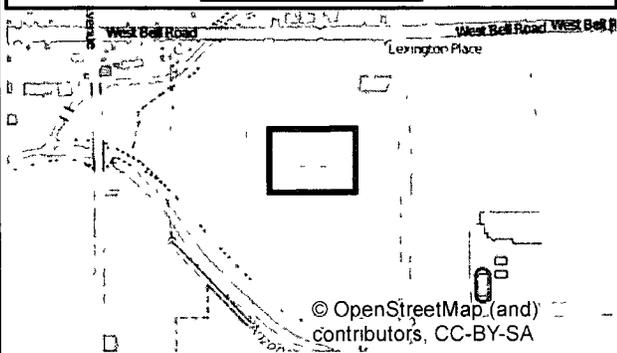


IMPROVEMENT EXHIBIT

EXHIBIT 31 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

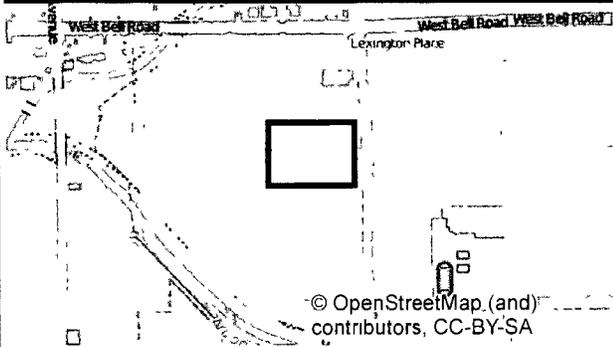


IMPROVEMENT EXHIBIT

EXHIBIT 32 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

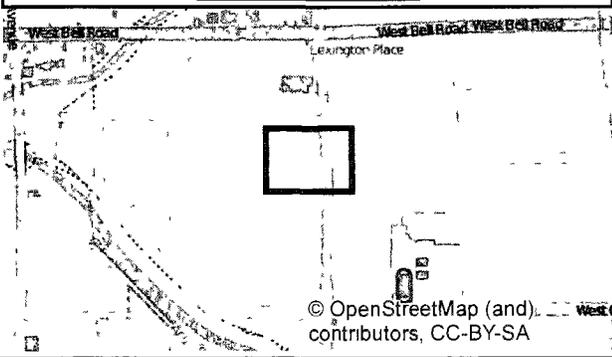


IMPROVEMENT EXHIBIT

EXHIBIT 33 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

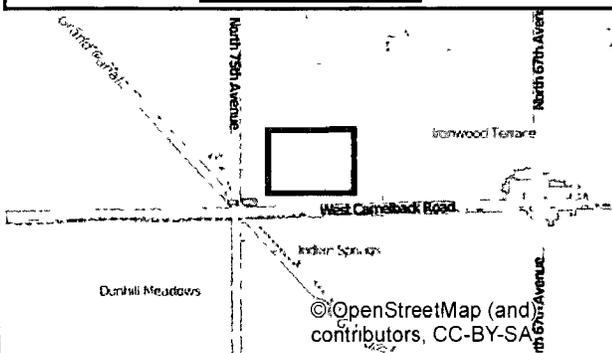


IMPROVEMENT EXHIBIT

EXHIBIT 34 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

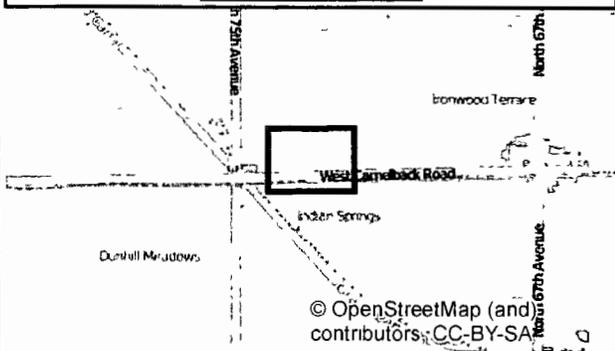


IMPROVEMENT EXHIBIT

EXHIBIT 35 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

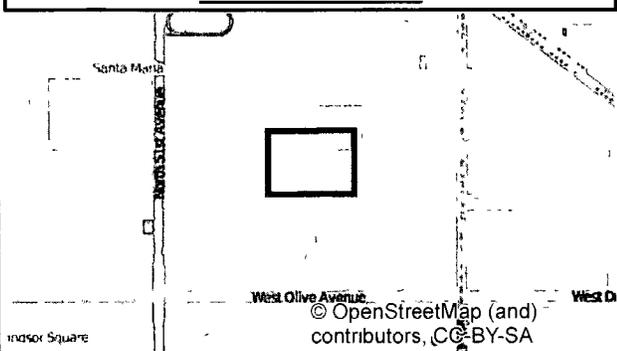


IMPROVEMENT EXHIBIT

EXHIBIT 36 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

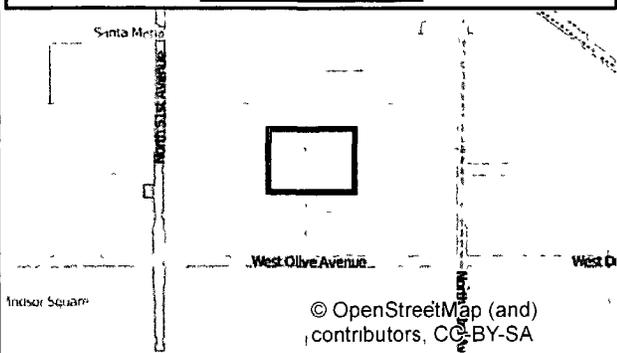


IMPROVEMENT EXHIBIT

EXHIBIT 37 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

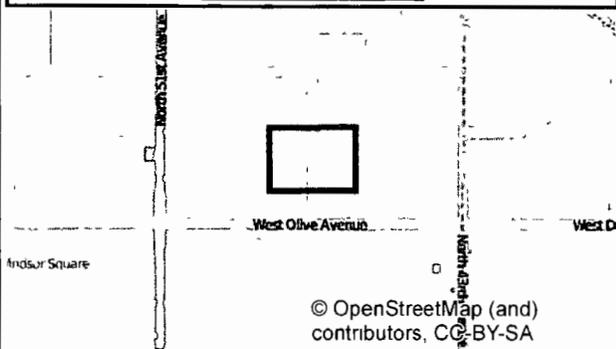


IMPROVEMENT EXHIBIT

EXHIBIT 38 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

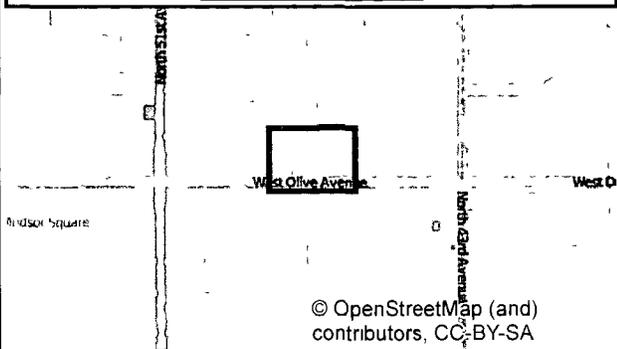


IMPROVEMENT EXHIBIT

EXHIBIT 39 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For

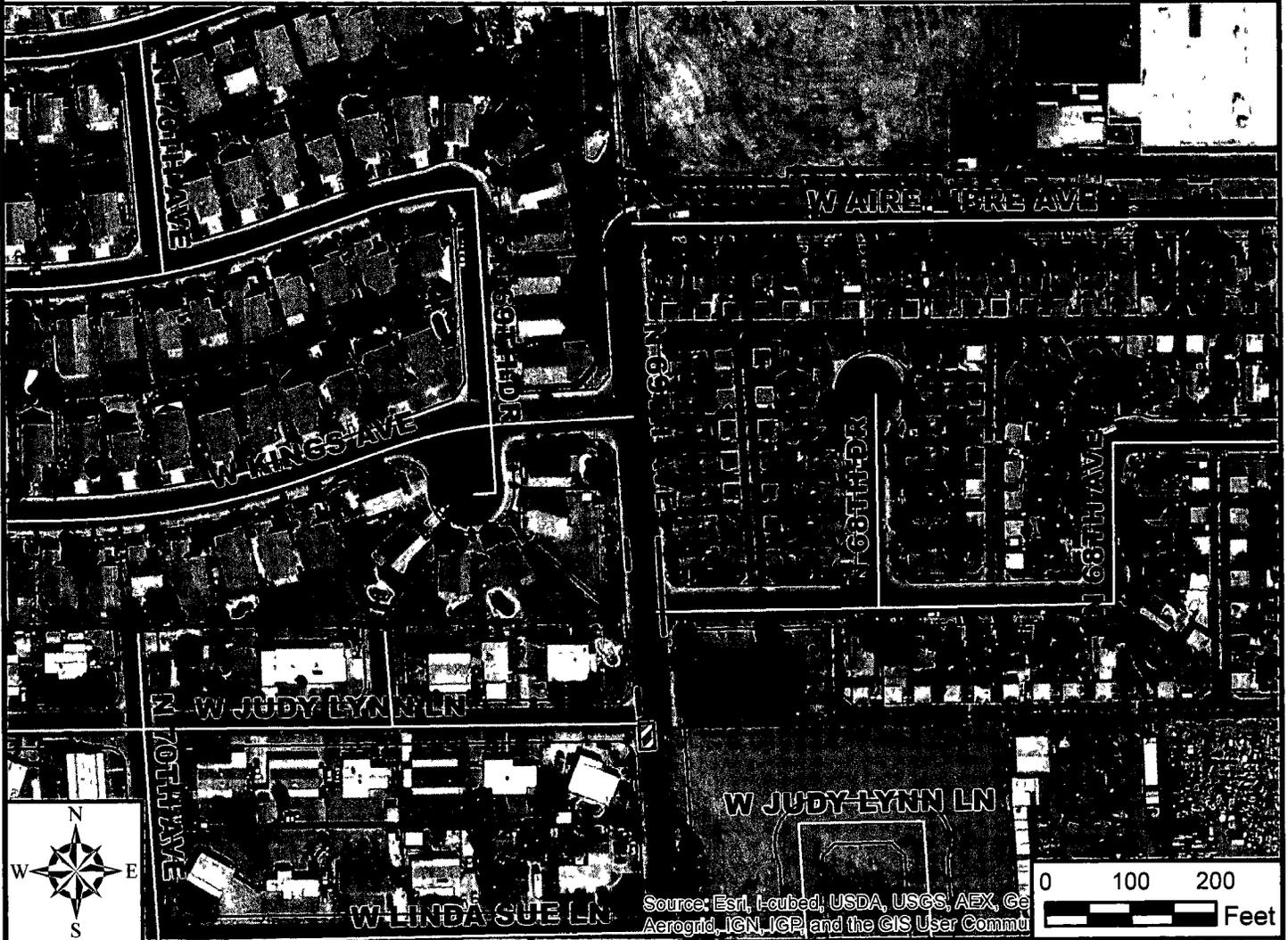


Prepared By



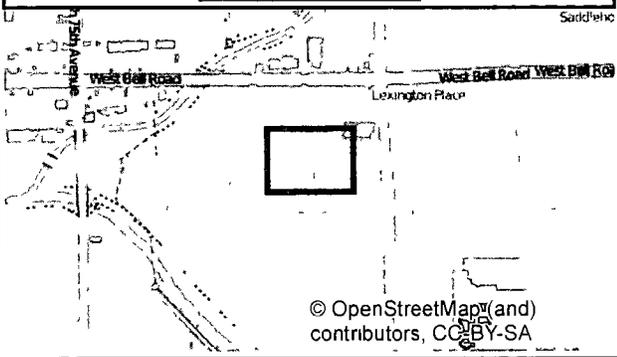
IMPROVEMENT EXHIBIT

EXHIBIT 40 OF 62



Source: Esri, DeLorme, USDA, USGS, AEX, Geo
Aerogrid, IGN, IGP, and the GIS User Commu

VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
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CONSTRUCTION NOTES:

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Prepared For



Prepared By



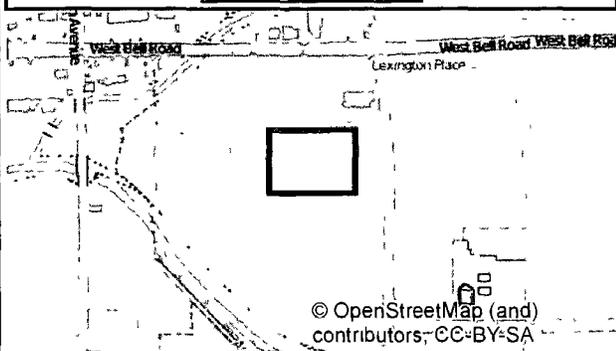
IMPROVEMENT EXHIBIT

EXHIBIT 41 OF 62



Source: Esri, Imagery, USDA, USGS, AEX, GeoAerogrid, IGN, IGP, and the GIS User Community

VICINITY MAP:



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STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

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Prepared For



Prepared By

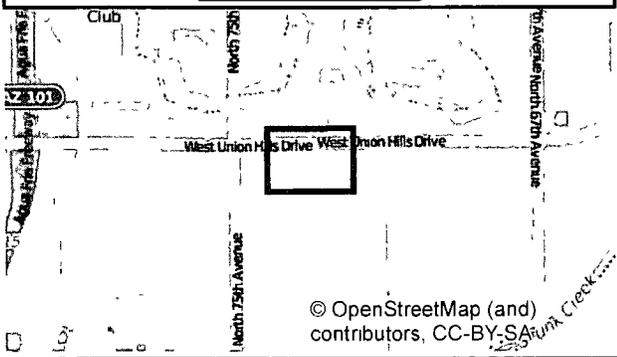


IMPROVEMENT EXHIBIT

EXHIBIT 42 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By

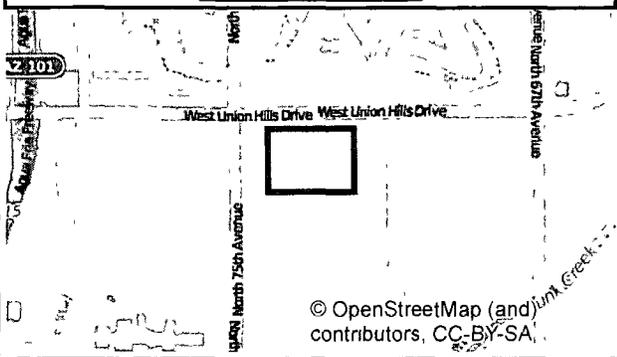


IMPROVEMENT EXHIBIT

EXHIBIT 43 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

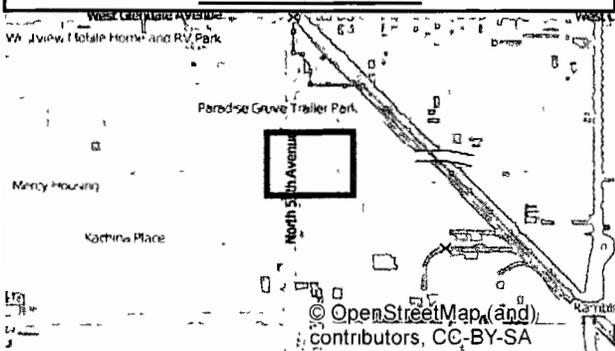


IMPROVEMENT EXHIBIT

EXHIBIT 44 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

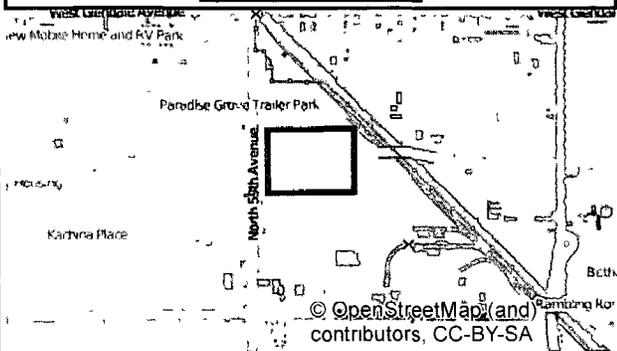


IMPROVEMENT EXHIBIT

EXHIBIT 45 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

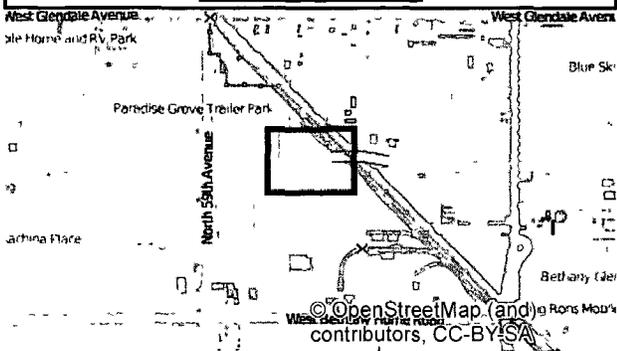


IMPROVEMENT EXHIBIT

EXHIBIT 46 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For

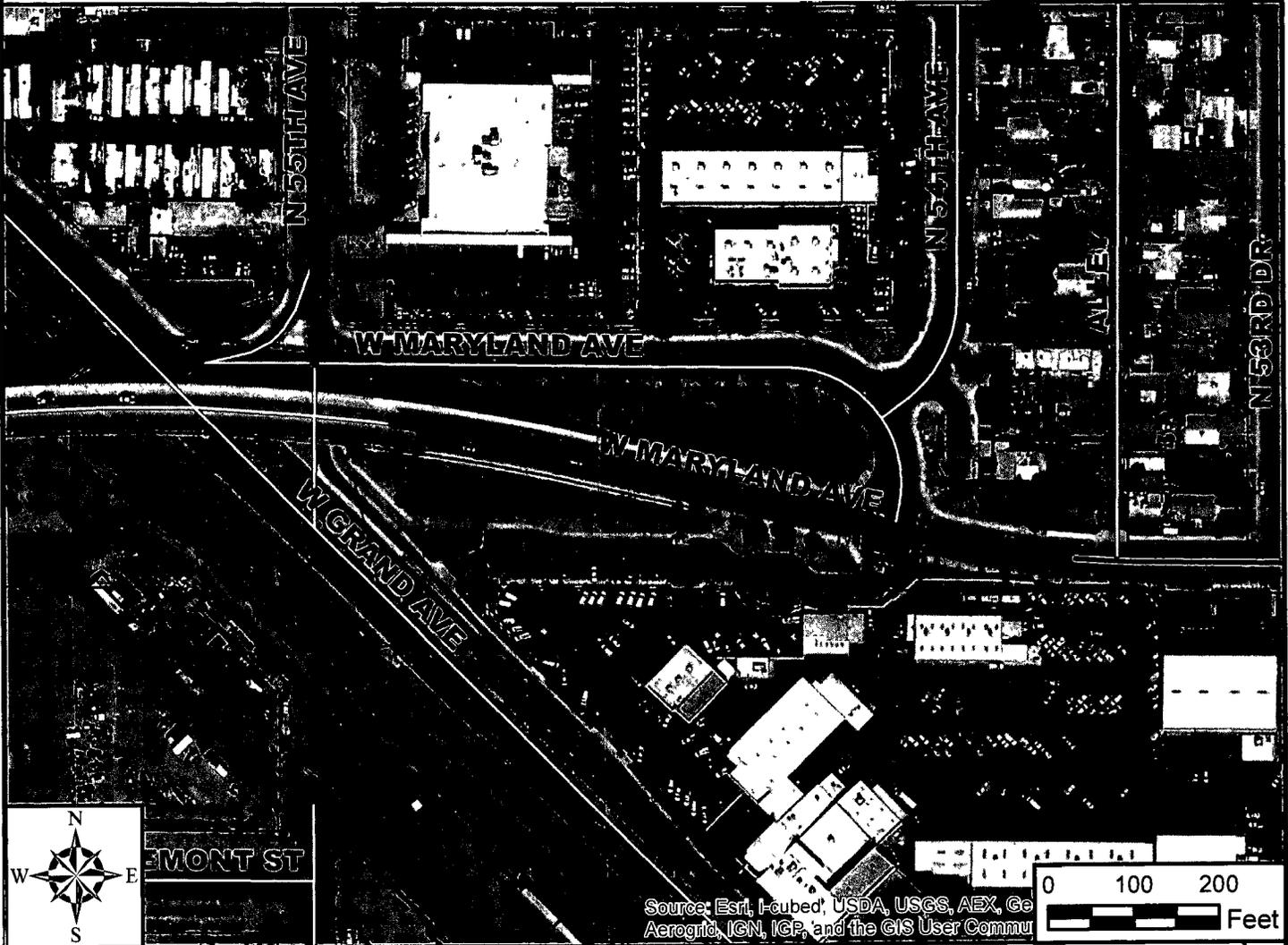


Prepared By

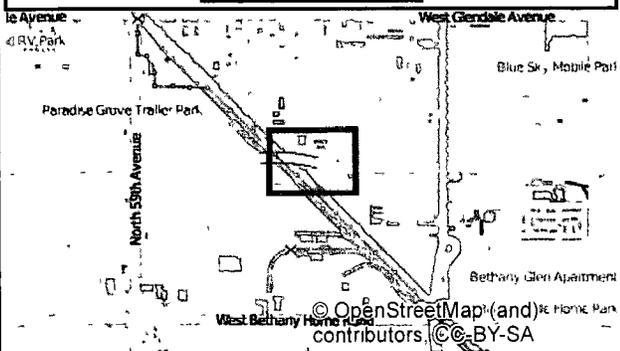


IMPROVEMENT EXHIBIT

EXHIBIT 47 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For

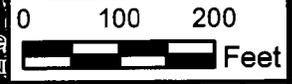


Prepared By



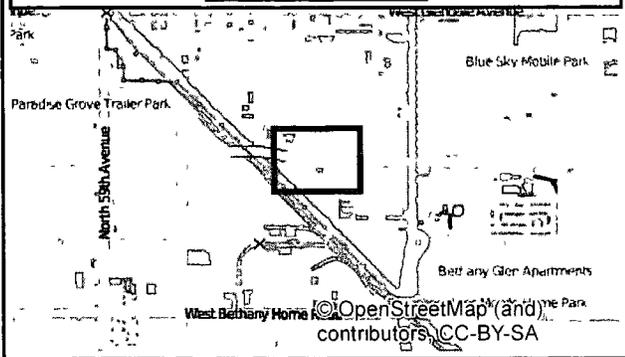
IMPROVEMENT EXHIBIT

EXHIBIT 48 OF 62



Source: Esri, DeLorme, USDA, USGS, AEX, GeoEye, AeroGRID, IGN, IGP, and the GIS User Community

VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

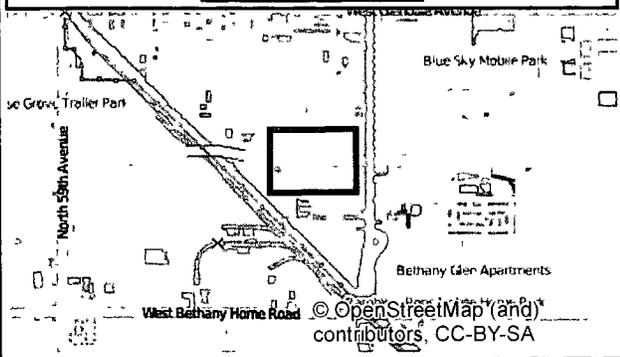


IMPROVEMENT EXHIBIT

EXHIBIT 49 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By



IMPROVEMENT EXHIBIT

EXHIBIT 50 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For

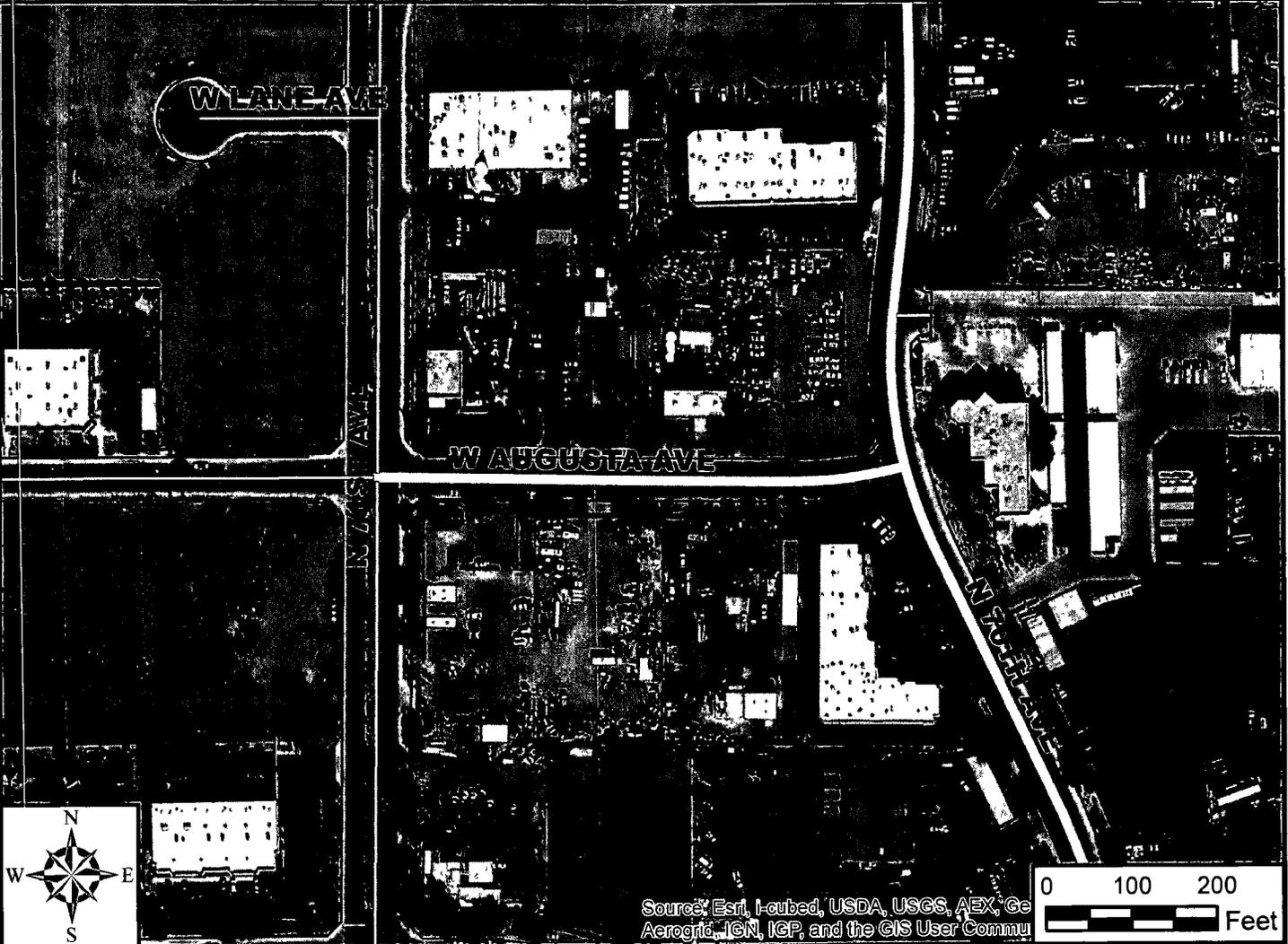


Prepared By

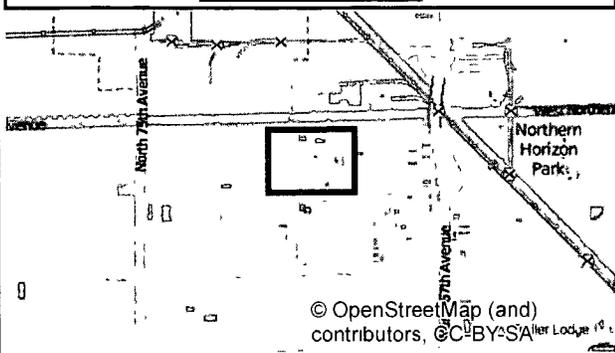


IMPROVEMENT EXHIBIT

EXHIBIT 51 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

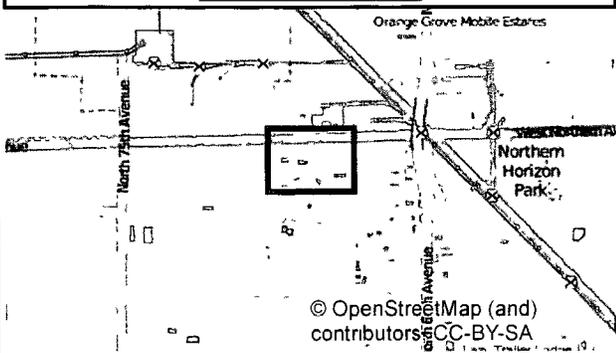


IMPROVEMENT EXHIBIT

EXHIBIT 52 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

- Surface Treatment
- Micro Seal
- Ramps Remove & Replace
- ▨ Asphalt Remove & Replace

Prepared For

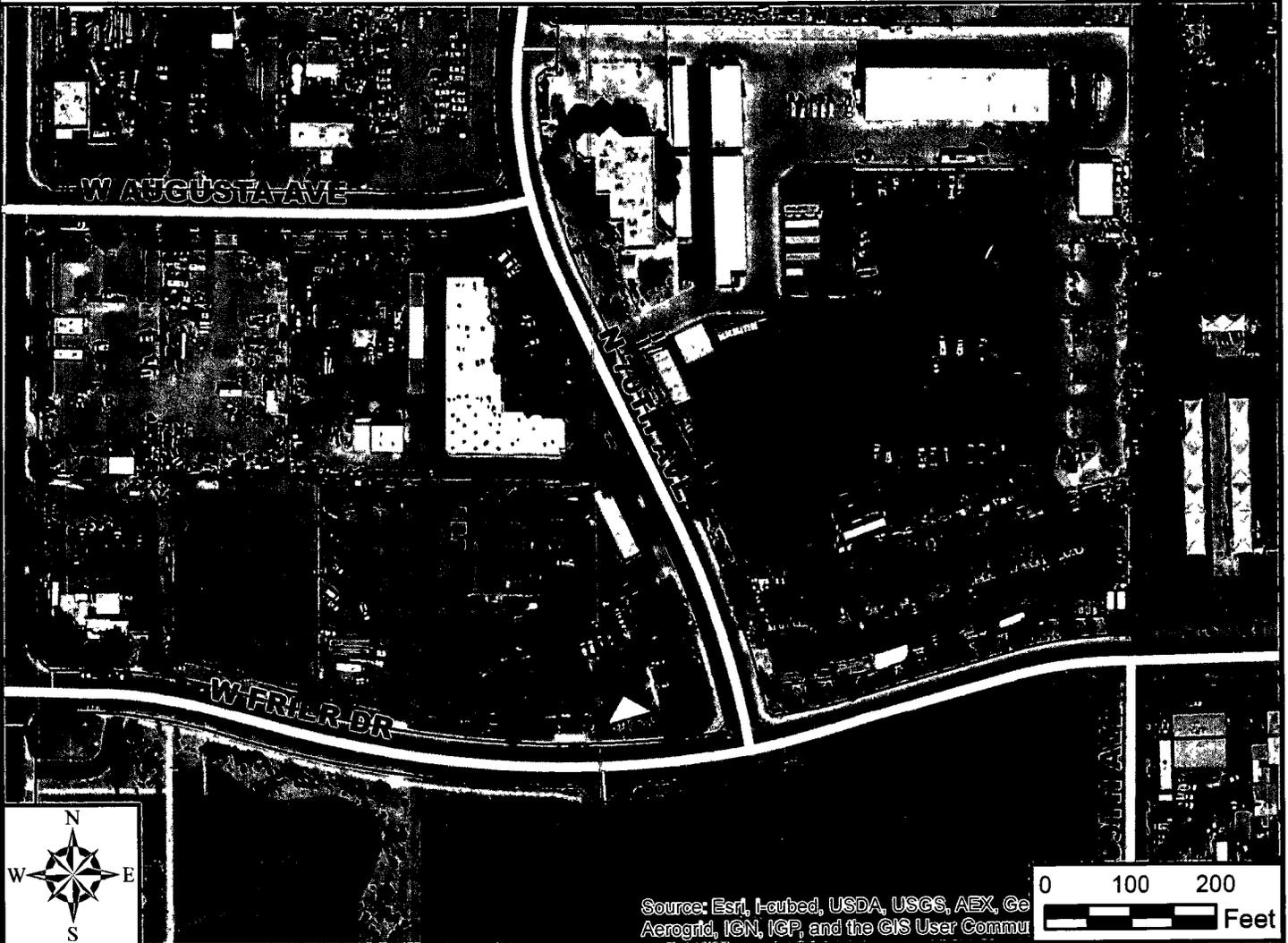


Prepared By

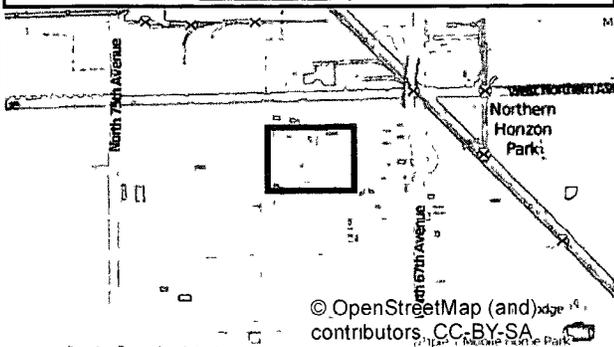


IMPROVEMENT EXHIBIT

EXHIBIT 53 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

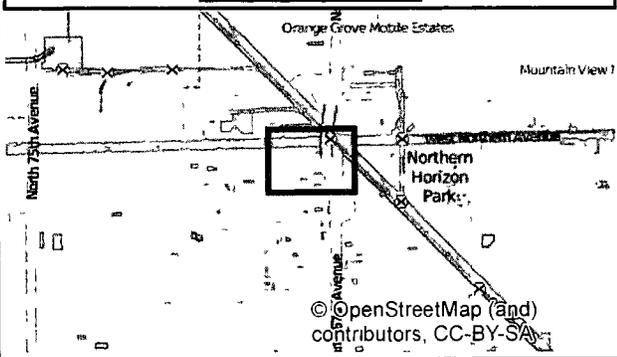


IMPROVEMENT EXHIBIT

EXHIBIT 54 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

Prepared For



Prepared By



IMPROVEMENT EXHIBIT

EXHIBIT 55 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For

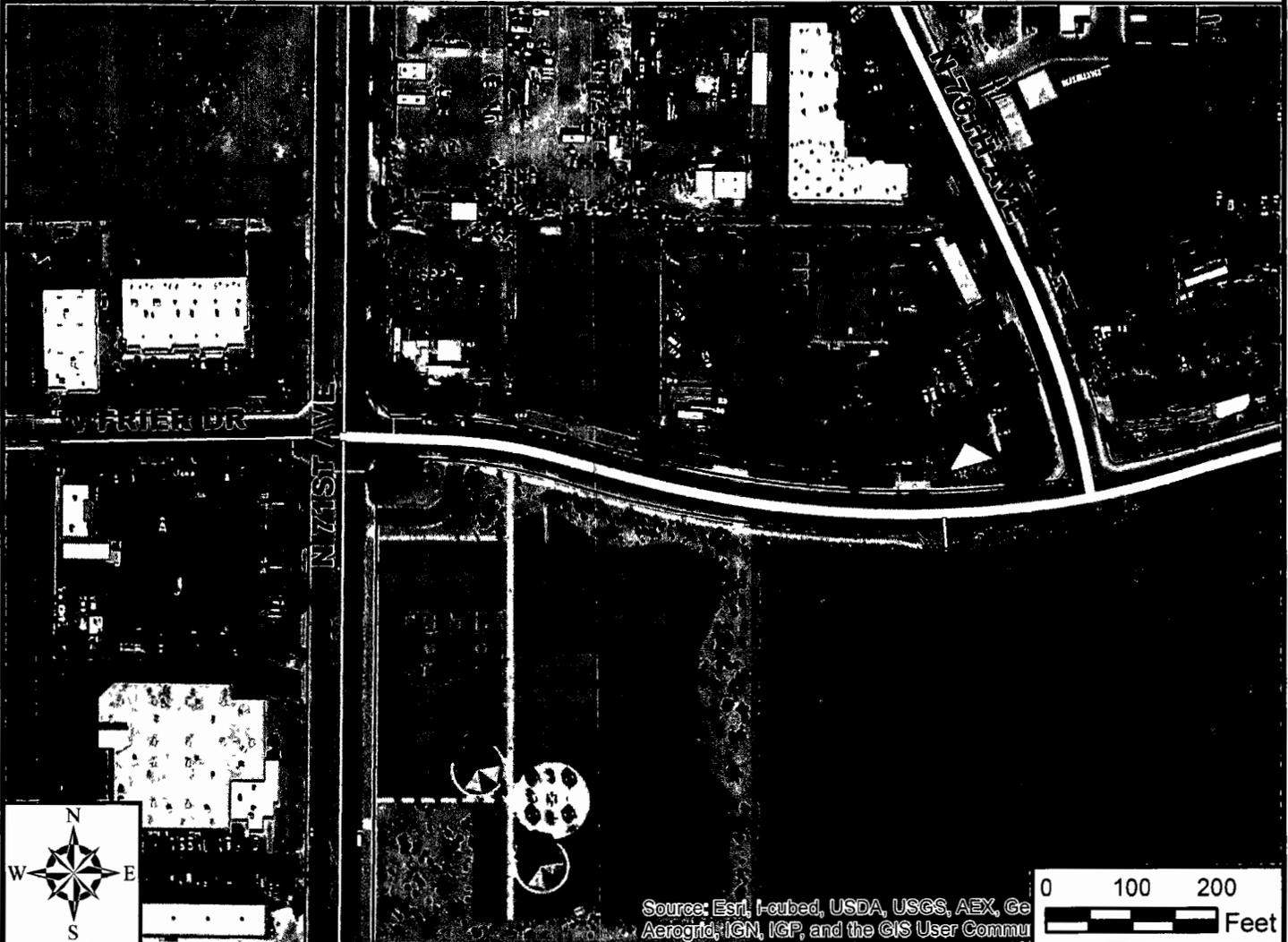


Prepared By

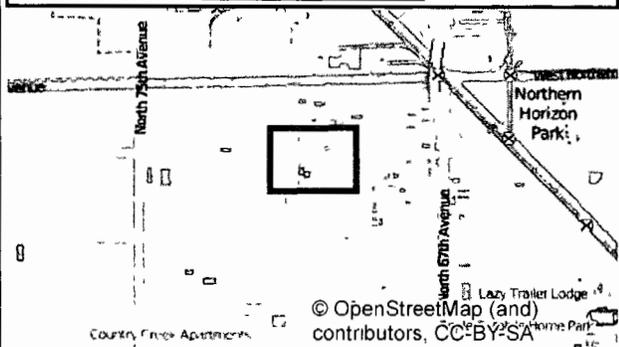


IMPROVEMENT EXHIBIT

EXHIBIT 56 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For

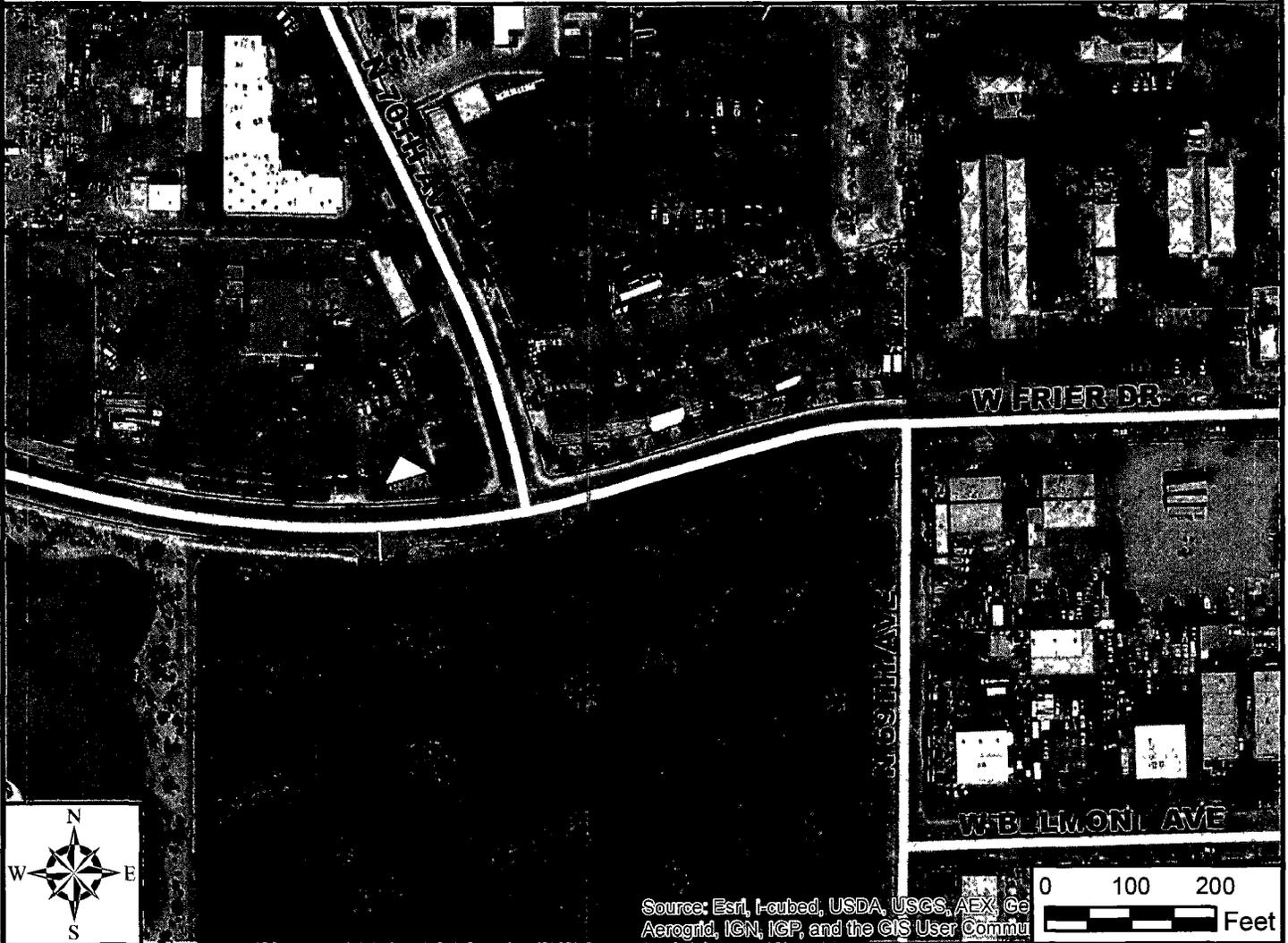


Prepared By

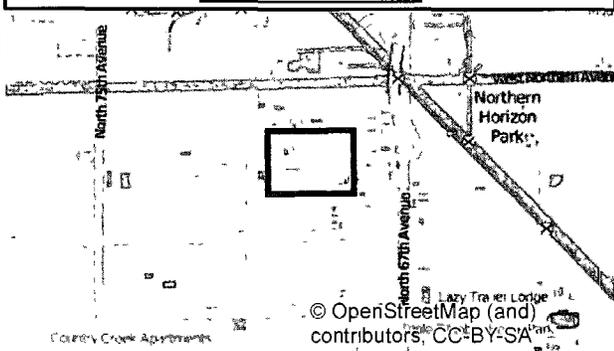


IMPROVEMENT EXHIBIT

EXHIBIT 57 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

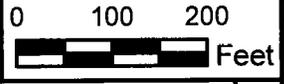


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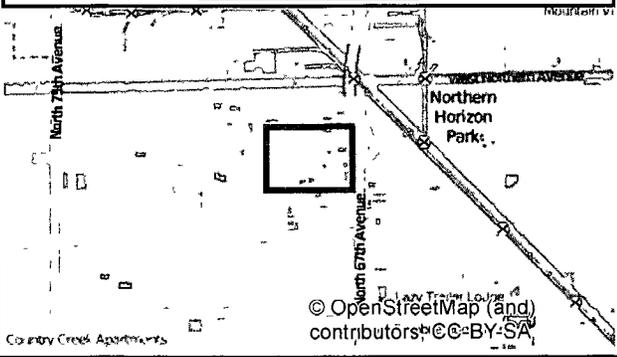
EXHIBIT 58 OF 62



Source: Esri, InRoads, USDA, USGS, AEX, Geo
Aerogrid, IGN, IGP, and the GIS User Commu



VICINITY MAP:



© OpenStreetMap (and) contributors © BY-SA

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

- Surface Treatment
- Micro Seal
- Ramps Remove & Replace
- Asphalt Remove & Replace

Prepared For



Prepared By

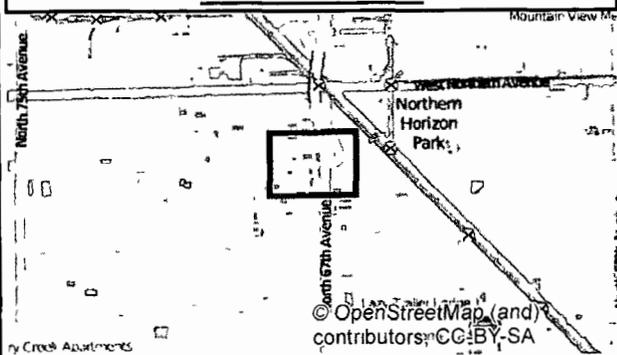


IMPROVEMENT EXHIBIT

EXHIBIT 59 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

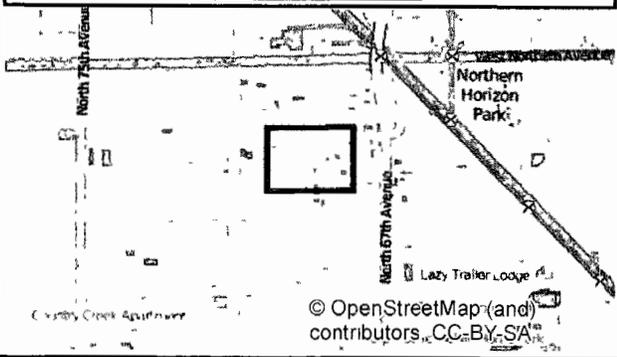


IMPROVEMENT EXHIBIT

EXHIBIT 60 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By

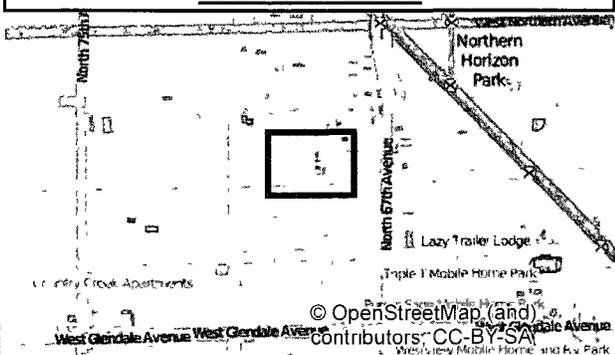


IMPROVEMENT EXHIBIT

EXHIBIT 61 OF 62



VICINITY MAP:



CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
- 2 SPECIFIC LOCATION INFORMATION AND IMPROVEMENT QUANTITIES CAN BE FOUND IN THE APPLICABLE IMPROVEMENT INDEX

STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

Prepared For



Prepared By

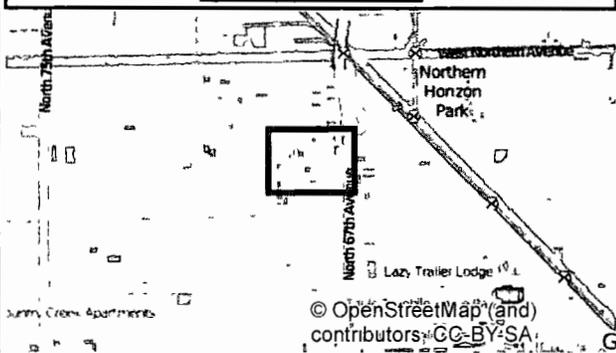


IMPROVEMENT EXHIBIT

EXHIBIT 62 OF 62



VICINITY MAP:



STREET REPAIRS

-  Surface Treatment
-  Micro Seal
-  Ramps Remove & Replace
-  Asphalt Remove & Replace

CONSTRUCTION NOTES:

- 1 ALL ASPHALT REPAIR AREA LOCATIONS SHOWN ARE APPROXIMATE ACTUAL LOCATIONS ARE AS MARKED IN THE FIELD
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Prepared For



Prepared By



TREATMENT TABLES

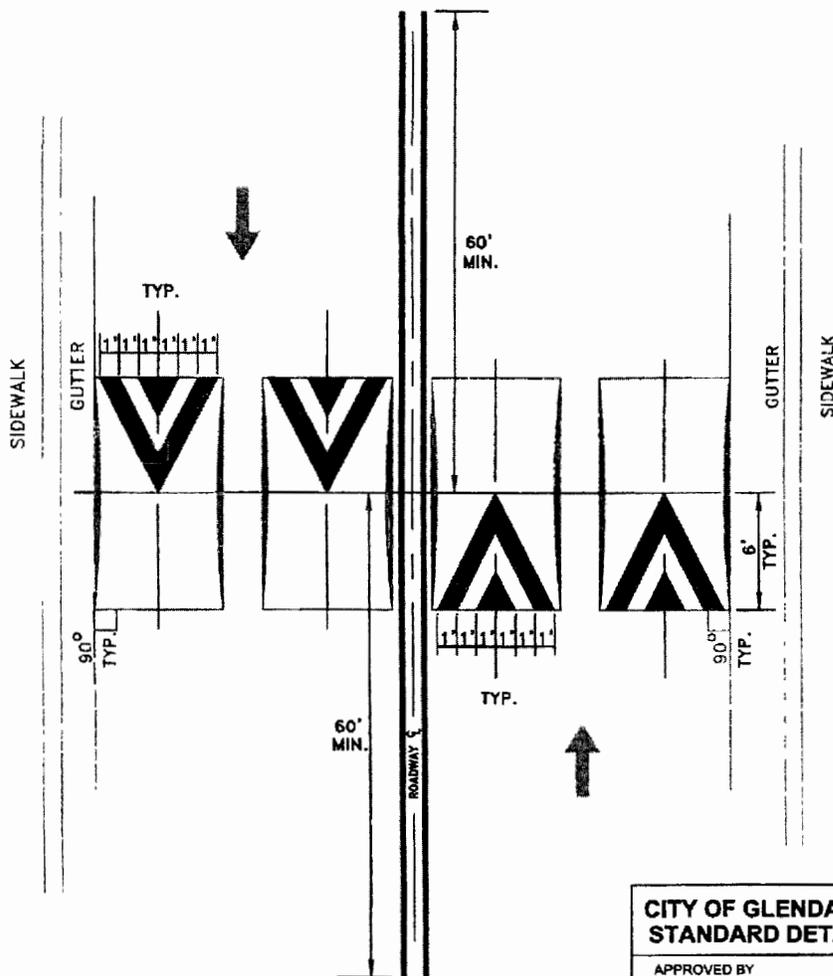
SLURRY SEAL							
Exhibit No	Street	Limits	Length	Width	Treatment SY	Crack Seal LF	Remove & Replace SY
1-3	W Grovers Ave	63rd Ave to n 59th Ave	2,128	Varies	9,827	37,600	0
4-7	W Lamar Rd	N 55th Ave to N 51st Ave	2,630	40	11,689	60,700	226
8-11	W Ocotillo Rd	N 55th Ave to N 51st Ave	2,630	40	11,636	56,000	117
12-13	N 81st Ave	W Ocotillo to W Maryland	1,280	40	5,689	47,650	258
14	W Myrtle Ave	62nd to Grand	710	40	3,311	5,625	0
15-16	W Myrtle Ave	69th Ave to 67th Ave	1,310	40	5,968	17,050	0
17-18	N 79th Ln	Myrtle to Orangewood	1,275	41	3,967	14,025	0
19	W Myrtle Ave	East & West of 79th Lane	333	28	916	3,325	0
20-21	N 55th Ave	Ocotillo Road to 54th Ave	1,142	41	5,202	16,225	209
22-23	N 55th Ave	Mountain View to Carol Ave	1,189	Varies	5,804	25,975	0
24-25	N 55th Ave	Carol Ave to Olive Ave	1,466	Varies	6,906	31,000	0
26	N 53rd Ave	Paradise Lane to Kings Ave	544	40	2,418	13,100	86
27-28	W Kings Ave	53rd Ave to 51st Ave	1,488	40	6,613	30,100	99
29-33	W Paradise Ln	71st Drive to 67th Ave	3,017	Varies	12,101	69,050	20
34-35	N 73rd Ave	Colter to Camelback	1,154	40	5,129	22,250	0
36-37	N 47th Ave	Mountain View to Carol	1,197	Varies	5,792	26,650	31
38-39	N 47th Ave	Carol to Olive	1,392	Varies	6,541	30,175	24
40-41	N 69th Ave	Aire Libre Ave to Paradise Lane	1,090	Varies	3,476	23,025	92
42-43	N 73rd Ave	Union Hills to Bluefield	1,082	28	3,306	11,000	53
44-45	W Maryland Ave	59th Ave to 57th Ave	2,246	45	11,569	59,725	13
46-50	W Maryland Ave	57th Ave to 51st Ave	2,545	49	13,856	25,825	207
Totals					141,716	626,075	1,228

MICRO SEAL					
Exhibit No.	Street	Limits	Length	Width	Area SY
51	W Augusta Ave	71st Ave to 70th Ave	558	40	2,480
52-53	N 70th Ave	Northern to Frier	1,396	40	6,204
54-55	N 68th Ave	Northern to Frier	1,257	40	5,587
56-59	W Frier Drive	71st Ave to 67th Ave	3,850	Varies	16,511
60-61	N 69th Ave	Frier Dr to Orangewood	1,286	20	2,858
62	W Belmont Ave	69th Ave to 67th Ave	1,260	40	5,600
				Sum	39,240

Concrete Remove and Replace

Description	Street	Location	Quantity
Concrete Valley Gutter, MAG Std. Dtl. 240	W Lamar Ave	55th Ave & Lamar	100 SF
Concrete Curb & Gutter, MAG Std. Dtl. 220-1(Type A)	W Lamar Ave	South side between 55th Ave & 54th Dr.	16 LF
	Maryland Ave	South side east of 57th Ave	88LF
6' Concrete Sidewalk Per MAG Std. Dtl. 230	Maryland Ave	South side east of 57th Ave	528 SF

DETAILS



NOTES

1. ON THE SAME DAY OF INSTALLATION, CONTRACTOR SHALL STRIPE THE CUSHIONS WITH WATER BASED PAINT PER CITY OF GLENDALE SUPPLEMENTAL SPECIFICATIONS FOR PAVEMENT MARKINGS.
2. CONTRACTOR SHALL PERMANENTLY STRIPE THE SPEED CUSHIONS WITH 12" WHITE MARKINGS 30 DAYS AFTER INSTALLATION.
3. PERMANENT STRIPING SHALL BE 3M STA-MARK SERIES SMS-5730 OR APPROVED EQUIVALENT.
4. APPLY 3M CONTACT CEMENT, E-44 OR APPROVED EQUIVALENT TO THE ROADWAY FOR STRIPING INSTALLATION.
5. CENTERLINE STRIPING, IF ANY, SHALL BE DOUBLE YELLOW AND BE A MINIMUM OF 60' FROM CENTER OF SPEED CUSHION. LENGTH OF STRIPING TO BE DETERMINED BY THE TRANSPORTATION DEPARTMENT.

**CITY OF GLENDALE
STANDARD DETAIL**



SPEED CUSHION STRIPING

APPROVED BY
CITY
ENGINEER

DATE
REVISED MARCH 2010

DETAIL NO
G-351