REQUEST FOR PROPOSAL

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PROJECT: Kern Community College District
Cerro Coso Community College
  • Main Building Parking Lot Repair
3000 College Heights Blvd.
Ridgecrest CA 93555
Kern Community College District

1.0- NOTICE TO PROPOSERS
Request for Proposal

DATE: March 1, 2021

TO: Qualified Proposers

FROM: Daniel W. Reed
Kern Community College District
2100 Chester Ave.
Bakersfield, CA 93301

PROJECT: Main Building Parking Lot Repair
Cerro Coso Community College
Kern Community College District

PROJECT DESCRIPTION: This project will include design, labor and material to provide and to make repairs to existing parking lot and fire lanes

LICENSE REQUIRED: C-12

PROPOSAL DATE/TIME: April 1, 2021 2:00 pm

PROPOSAL LOCATION: Kern Community College District
2100 Chester Ave. Room 201
Bakersfield, CA 93301
Attn: Daniel W. Reed, Construction Project Manager

BID SECURITY BOND: Required 10% Bid Bond if proposal is $45,000 or over.

PERFORMANCE AND PAYMENT BOND: Required if proposal is $25,000 or over.

PREVAILING WAGE PROJECT: Yes

CONTRACT DOCUMENTS AND SPECIFICATIONS
MAY BE OBTAINED AT ADDRESS BELOW:
N/A See contact person

CONTACT PERSON: Daniel W. Reed (661) 336-5181
dareed@kccd.edu
Cody Pauxis (760) 384-6369
cody.pauxtis@cerrocoso.edu

MANDATORY SITE VISIT: March 9, 2021 at 10:00 am. Cerro Coso Main Parking Lot
2.0- INSTRUCTIONS TO PROPOSER

PART 1 - GENERAL

A. SECURING DOCUMENTS:
1. Contractors obtaining these plans and project manual for the purpose of submitting proposals for this work shall notify the District of their intentions, together with mailing address and telephone number, so they may be fully advised of any addenda to the construction documents being figured, or of any corrections, additions or omissions. Failure to so notify the District will make the contractor liable for the inclusion of all information according to the addenda in this contract, whether received or not.
2. Construction documents will not be issued to contractors who are not licensed to do business in the State of California, and the District will not consider or accept any proposal or proposals from such contractors.
3. Proposers shall have a generally recognized record for satisfactory execution of contracts of a similar size and character.

B. EXAMINATION OF PROPOSAL DOCUMENTS:
1. Each proposer shall examine the proposal documents carefully prior to date for receipt for proposals, shall make written request for interpretation and/or correction of any ambiguity, inconsistency or error therein which he may discover.
   Any interpretation and/or correction will be issued as an Addendum. Only a written interpretation and/or correction by Addenda shall be binding. No proposer shall rely upon any interpretation and/or correction given by any other method.
2. By submitting a proposal, the proposer implies that he has thoroughly investigated and is satisfied as to the character quality and quantities of work to be performed and materials to be furnished, and as to all the stipulations and requirements of the Contract and construction documents.
3. The Proposer shall diligently investigate existing conditions to ascertain work required and include all necessary cutting and patching and refinishing in his proposal. He shall provide for and exercise every precaution to protect the existing facilities against dust, dirt, water, trash, interruption of personnel activities, etc., due to operations under this Contract.
4. The District will not be responsible for any omissions, errors, etc., which may result from the Contractor's procurement of incomplete documents. It shall be the Contractor's responsibility to review and ascertain all of the required work, materials, etc., to be provided by him in performing all work as required and/or called for by the Contract Documents.

C. INTERPRETATION OF DOCUMENTS:
   Should a proposer find discrepancies in, and/or omissions from the drawings and specifications, and/or should he be in doubt as to their meaning, he shall at once notify the District and should it be found necessary, a written addendum or clarification will be sent to all Proposers. The District will not be responsible for oral instructions.
1. Questions during proposals shall be submitted in writing to District’s designated office. Fax copies will be accepted.
2. No questions will be answered two (2) working days prior to proposal opening.
3. E-mail questions will be accepted.

D. PROPOSALS:
   Proposals to receive consideration shall be made in accordance with the following instructions:
1. Proposals shall be made upon the proposal forms, properly executed and with all items filled out; numbers shall be stated both in writing and in figures. The complete proposal form shall be without alterations to content, form, and scope project; and the signatures of all persons signing shall be in longhand and original wet signatures.
2. Alternate proposals will not be considered unless called for. No oral, telegraphic or telephonic proposals or modifications will be considered.

3. Before submitting proposals for this work, including RFP's, each proposer will be held to have examined the project premises and satisfied himself as to the existing conditions under which he will be obliged to operate, and that no changes will be made subsequently in this connection or in behalf of the Contractor for any error or negligence on his part, and he shall include in the proposal a sum to cover the cost of all items included in the contract and/or subsequent RFP's. No additional cost will be considered for price increases of any materials, labors, methods and/or procedures. The Contractor shall make allowances for any and all price changes occurring during this project from proposal through final completion and project acceptance by District.

4. Proposals will be delivered to the District at locations and time noted on "Bid Proposal" on or before the day and hour set for the opening of proposals. Proposal forms shall be enclosed in an envelope, and bear the title of work and the name of the proposer. It is the sole responsibility of the proposer to see that his proposal is received in proper time and location. Any proposal received after the schedule closing time for receipt of proposals will be returned to the proposer unopened.

5. Each proposer shall include with Proposal a Non-Collusion Affidavit, Prevailing Wage Compliance Certificate, required bond documents, and Certification of Workmen's Compensation to be executed by proposer and submitted with proposal. Form is included in "Bid Proposal" section. Form shall be fully executed and included with Proposal.

6. General Information:
   a. The District reserves the right to reject any or all proposals and/or waive any irregularities or informalities in any proposals and/or in the proposals process.
   b. The District has determined the general prevailing rate of per diem wages in the locality in which this work is to be performed for each craft or type of worker needed to execute this Contract. These rates are available on the Internet at the following address: www.dir.ca.gov/DLSR/statistics_research.html. Copies may be downloaded by the Contractor.
   c. The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work shall be at least time and one half.
   d. It shall be mandatory upon the Contractor to whom the Contract is awarded (Contractor), and upon any subcontractor under him, to pay not less than the specified rates to all workers employed by them in the execution of the Contract. It is Contractor's responsibility to determine any rate change which may have or will occur during the intervening period between each issuance of written rates by the Director of Industrial Relations.
   e. If awarded, proposal will be awarded to the lowest qualified proposal.

E. WITHDRAWAL OF PROPOSAL:
Proposals may be withdrawn by the Proposer prior to, but not later than, the time fixed for opening of proposals.

F. CORPORATION AS PROPOSER:
In case a proposal is submitted by a corporation, it shall be signed in the name of such corporation by a duly authorized officer or agent thereof.

G. SALES TAXES:
Sales taxes and any or all taxes and any other City, County, State, or Federal, except property taxes shall be included in the proposal. All proposals shall include all license fees, permit fees, and other fees to complete this project. See herein for permits, inspections, and assessments required for this project.
H. ADHERENCE:

No proposal will be considered that does not strictly adhere to all requirements of these instructions to Proposers.

I. PROPOSALS TO BE ACCEPTED BY DISTRICT:

The successful contractor shall be determined by the lowest total aggregate proposal of any or all proposals accepted by the District. The District reserves the right to select the proposals and/or aggregate of proposals it deems advantageous to the District.

J. AWARD OR REJECTION OF PROPOSALS:

The contract shall be awarded to the responsible proposer complying with these instructions. The District reserves the right to reject any and all proposals and to waive any informality or irregularity in proposals received. The award, if made, will be made within sixty (60) calendar days after the opening of the proposals.

K. EXAMINATION OF SITE:

The Proposer shall carefully examine the site of the contemplated work prior to submitting a proposal and shall have satisfied himself as to the existing conditions and the conditions under which he will be obligated to operate, and/or that will in any manner affect the work under the contract. No allowance will be made subsequently in this connection for items that could be reasonably be inferred to be required to complete project scope from a careful examination of site of the contemplated work.

L. ADDENDA AND BULLETINS:

Any addenda or bulletin items issued during the time of proposals shall be an integral part of the Contract Documents used by the Proposer for the preparation of his proposal, all items of addenda and/or bulletins shall be included in the Proposal and shall be made part of the Contract. Delivery of any Addenda or Bulletin in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, delivery by mail to the last known business address of the Contractor, or fax transmittal with telephone confirmation of complete receipt and or email will be considered to be proper service of said documents.

M. PERMITS, INSPECTIONS AND ASSESSMENTS, ETC.:

No building permits required for this project.

List of fees/assessments:
1. None.

N. FORMAL PROTEST OF PROPOSAL:

Any proposer submitting a proposal to the District or a third party may file a protest against District awarding contract on this project provided that protestor meet all of the following requirements:

1. Protest shall be submitted in writing and received on or before 72 hours after proposal opening time. Protest received after that shall not be recognized.

2. Protest of any proposals shall be filed and received by the Chief Financial Officer, Tom Burke, of the District by certified mail or by personal delivery during normal working hours, for administrative appeal.

3. Protest Submittal shall contain the following:
   a. The written proposal protest sets forth, in detail, all grounds for the proposal protest, including without limitation all facts, supporting documentation, legal authorities and argument in support of the grounds for the proposal protest; any matters not set forth in written proposal protest shall be deemed waived. All factual contentions must be supported by competent, admissible and creditable evidence.

   b. Name, address, phone number of person(s), company and/or organization that is making protest and name of project protest is for.
4. Any proposal protest not conforming to the foregoing shall be rejected by the Owner as invalid. Provided that a proposal protest is filed in conformity with the foregoing, the Owner's Chief Financial Officer or such individual(s) as may be designated by the Chief Financial Officer, in his discretion, shall review and evaluate the basis of the proposal protest, and shall provide a written decision to the proposer submitting the proposal protest concurring with or denying the proposal protest. The written decision of the Chief Financial Officer shall be considered an administration appeal.

5. The protest decision by the Chief Financial Officer may be appealed to the Board of Trustees as a judicial appeal. This request must be filed with the Chief Financial Officer within 72 hours of receipt of the written decision of the Chief Financial Officer. Said appeal shall be accompanied with reason for appeal. The judicial appeal will be calendared within 31 days or less of receipt. The final decision of the Board of Trustees is not subject to arbitration, mediation or reconsideration/appeal.

O. STARTING WORK:
All documents shall be submitted and approved prior to starting work. Failure to provide complete information prior to days indicated shall be considered non-responsive, bid bond will be forfeited, and Contractor shall be declared in default.

1. All insurance certificates - 10 days - Following award
2. Proof of Contractor's/Subcontractor's license - 10 days - Following award
3. Start work 5 days from notice to proceed and/or Purchase Order

PART 2 - PERFORMANCE OF WORK UNDER CONTRACT

A. SUPERVISION:
The General Contractor and all subcontractors engaged by general contractor will be required to designate one responsible on-site person with authority to receive directions and issue instructions for the orderly prosecution of the work.

B. BUILDING CODE REQUIREMENTS:
1. All work performed under this Contract shall conform to the applicable portions and editions of the following current codes:
   c. California Occupational Safety and Health Act (CAL/OSHA).
   d. Rules and regulations of the State and Local Fire Marshals.
   e. Safety Orders of the Industrial Accident Commission, State of California.
   g. Uniform Plumbing Code.
   h. All laws governing the employment of labor, posting of minimum wage rates, and accident prevention.
   i. American Disability Act, Federal law.
2. Requirements of enforcing authorities may supersede requirements of the above laws and regulations, and nothing in the Contract Documents shall be construed to permit work not conforming to applicable codes.
3. All of the above laws and regulations are as much a part of this contract as if they were incorporated in their entirety herein.

C. BID AND PAYMENT BOND:
General Contractor shall take out and maintain Bid and Labor/Payment bonds as indicated herein. The Bond requirement will vary based on the project proposal. The following criteria will determine Bond Requirements.
1. Bid Bond. Proposals shall be accompanied with a Bid security 10% of project amount for all
D. INSURANCE REQUIREMENTS:

1. Evidence of Insurance: Before the work is started, the Contractor shall forward to the District Certificates of Insurance and all the Contractual Liability coverage called for in the Contract Documents is in force, and specifically covers this particular Contract with the Owner, including the hold harmless requirements. In addition, the Certificates shall contain the following:
   1) "No cancellation of this policy or endorsement of same shall be effective until; until the thirtieth (30th) day following the receipt of notice of such cancellation of the policy or endorsements by the Owner."
   2) Certificates of Insurance shall contain transcripts from the policies authenticated by the proper office of the Insurer, evidencing in particular those insured, the extent of the insurance, the location of and the operations to which the insurance applies, the expiration date and the thirty (30) day NOTICE OF CANCELLATION CLAUSE.
   3) Acceptance of the Certificates of Insurance shall not relieve or decrease the liability of the Contractor.
   4) In the absence of contrary written instructions from the District, the Contractor at the Contractor's expense, shall obtain and maintain insurance at all times during the prosecution of the Contract, in companies and through agencies approved by the District, and with limits not less than those stated hereinafter.
   5) The Contractor shall not commence work under this Contract until he has obtained and paid for all insurance required herein and such insurance has been approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his Subcontract until such insurance required of the Subcontractor has been so obtained and approved.

2. Provide the following items with evidence of insurance for all insurance policies for this project: The insurance required must be written by a Best Key Rating Guide "A" or better rated carrier admitted to write insurance in the state where the work is located at the time the policy is issued.

3. Indemnification
   a. To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the District and the Consultants and their employees from and against all claims, damages, losses and expenses, including attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss of expense is attributable to bodily injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting there from but only to the extent caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.
   b. In any and all claims against the District or the Consultants, or any of their employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or by any Subcontractor under workers compensation acts, disability benefit acts or other employee benefit acts.
   c. The obligations of the Contractor under this Paragraph shall not extend to the liability of the consultants or any of their agents or employees arising out of 1) The preparation or approval of maps, drawings, opinions, reports, surveys, change
orders, designs or specifications, or, 2) the giving of or the failure to give directions
or instructions by the consultants or any of their agents or employees, provided
such giving or failure to give is the primary cause of the injury or damage.

d. The Contractor to name the District, the consultants, its agents and employees as
additional insured on the Contractor's policy or policies of comprehensive general
liability insurance. Such insurance shall include products and completed operations
and contractual liability coverages, shall be primary and non-contributing with any
insurance maintained by consultants, or its agents and employees, and shall
provide that the Consultant be given thirty days, unqualified written notice prior to
any cancellation thereof.

4. Worker's Compensation Insurance
Contractor shall provide, during the term of this Contract, Worker's Compensation Insurance
for all of his employees engaged in Work under this Contract, on or at the site of the project,
and in case any of his work is sublet, Contractor shall require the Subcontractor to provide
Worker's Compensation Insurance for all of his employees. Any class of employee or
employees not covered by a Subcontractor's insurance shall be covered by the Contractor's
insurance. In case any class of employees engaged in work under this Contract, on or at
the site of the project, is not protected under the Worker's Compensation laws, Contractor
shall provide or cause a Subcontractor to provide, adequate insurance coverage for the
protection of those employees not otherwise protected. Contractor shall file, with the Owner,
certificates of insurance.

a) The Worker's Compensation Insurance shall be written by a company California
admitted in the State of California, and shall be written for not less than the
following, as established by the Owner, or greater if required by law.

b) Provide employer's liability endorsements:
   1) State workers' compensation statutory benefits - policy limits of not less
      than $1,000,000.00.
   2) Employer's Liability - policy limits of not less than $1,000,000.00.

5. Comprehensive General Liability Insurance
Commercial General Liability Insurance in Contractor's name, with personal injury limits
indicated herein for combined Single Limit per occurrence coverage and annual aggregate.
The policy is to be on a Comprehensive General Liability form and must include Contractual
Liability endorsed to specifically cover an Indemnity Agreement contained in the Contract.
The Comprehensive General Liability coverage may be provided on an "occurrence" form or
a "claims made" basis. If the coverage is on a "claims made" basis, the policy shall provide
for a non-cancelable 5 year extended reporting period.

a) The Contractor shall carry such public liability and property damage insurance that
will protect the Contractor, Owner, Architect and Engineers from claims for damages
for bodily injury, including accidental death, as well as for claims for property
damages, which may arise from operations under the contract whether such
operations be by the Contractor or by any Subcontractor or anyone directly or
indirectly employed by either party. The limits of coverage shall be as stated herein.

b) In the event that any suits, actions, or claims are brought against the Owner,
Architect, and/or Architect's Consultants, money equal to the "claim amount may be
withheld from payments due the Contractor under and by virtue of this contract as
may be considered necessary by the Owner for such purpose. Money due the
Contractor will not be withheld when the Contractor produces satisfactory evidence
that adequate public liability and property damage insurance has been obtained.

c) The policy shall include coverage for the following:
   1) Premises - operations
   2) Contractual liability
   3) Products
   4) Completed operations
   5) Broad form PD and including X, C and U coverage
   6) Personal injury
7) Owners, contractors protective

6. Automobile Liability Insurance: Automobile Liability Insurance with an Employer’s Non-Ownership Liability Endorsement in the Contractor's name. Limits of liability shall not be less than amount indicated herein for Combined Single Limit per occurrence. Provide CSL, BI and PD coverage for owned, non-owned and hired autos.
   a) Provide owned, non-owned and hired automobile insurance endorsement.

7. Insurance Schedule
   a) Worker's Compensation Insurance per State of California policy limits of not less than $1,000,000.00.
      1) Employer's Liability Endorsement $1,000,000 min.
   b) Comprehensive General Liability:
      1) Combined single limits for bodily injury and property damage:
         $1,000,000 - Each Occurrence
         $1,000,000 - Annual Aggregate
      2) Personal Injury, with Employment Exclusion deleted.
      3) Include coverage of the following:
         i) Premises - operations
         ii) Contractual liability
         iii) Products
         iv) Completed operations
         v) Broad form PD and including X, C and U coverage
         vi) Personal injury
         vii) Owners, contractors protective

E. ASBESTOS-CONTAINING PRODUCTS:
   1. Contractor agrees that asbestos-containing products or materials will not be used or substituted in performing work under the Agreement.
   2. At the completion of work under this Agreement, Contractor will certify in writing to the Owner that, to the best of Contractor's knowledge, no asbestos-containing products or materials were used or substituted in performing work under the Agreement.

F. PCB-CONTAINING PRODUCTS & LEAD PLUMBING ITEMS:
   1. Contractor agrees that lead plumbing domestic water items, asbestos, PCB, -containing products or materials will not be used or substituted in performing work under the Agreement.
   2. At the completion of work under this Agreement, Contractor will certify in writing to the Owner that, to the best of Contractor's knowledge, no lead plumbing domestic water items, asbestos/PCB-containing products or materials were used or substituted in performing work under the Agreement.

G. PREVAILING WAGE RATES AND APPRENTICESHIP REQUIREMENTS – All proposals that exceed $1,000 shall be prevailing wage.
   1. Wages and Employer Payments:
      a) The general prevailing wage rates and employer payments for Health and Welfare, Pension, Vacation and similar purposes in the county in which the work is to be done shall be in accordance with the Labor Code of the State of California, Section 1770, et seq.
      b) Copies of all collective bargaining agreements relating to the work as set forth in the aforementioned Labor Code are on file and are available for inspection in the Office of the Division of Labor Statistics and Research of the Department of Industrial Relations.
      c) Employer payments as defined in Section 1773.1 of the Labor Code are to be paid in accordance with the terms of the collective bargaining agreement applicable to the type of classification of the workmen employed on the project and shall be the prevailing wage rate of the county in which the work is to be performed. Overtime
shall be paid for the hours worked in excess of the working day and for time worked on Saturdays, Sundays and the seven (7) holidays which are to-wit:
   New Year's Day, Memorial Day, July Fourth,
   Labor Day, Veteran's Day, Thanksgiving Day
   and Christmas.

The Contractor and any subcontractor under him shall comply with the requirements of Sections 1773.3, 1777.5, 1776 and 1777.6 in the employment of apprentices.

1) The predetermined (double asterisk) changes are no longer a part of the general prevailing rates of per diem wages. The rates at the time of the proposal advertisement date of a project will remain in effect for the life of project.

2) The definition of prevailing rate states that when there is no single rate paid to a majority of workers, then the prevailing rate is a weighted average.

d) Not less than the general prevailing wage rate for each classification of work State or Federal which is higher shall be paid by the general contractor and all subcontractors under him shall be paid to all laborers, worker and mechanics employed in the execution of such contract or subcontract there under, including rates for overtime and general holidays in the locality in which the work is to be performed.

e) The Contractor and all subcontractors under him shall make travel and subsistence payments to each workman needed to execute all the work as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the Labor Code.

2. Eight Hour Day: Contractor shall not permit any person employed by him to work overtime other than pursuant to express provisions of Section 1810 of the California Labor Code.

3. Records of Hours Worked and Citizenship: The Contractor shall maintain records of the hours worked by his employees and their citizenship and they shall be open at all times for inspection by the County, Client and/or the Division of Labor Statistics and Law Enforcement, in accordance with Sections 1814 and 1552 of the California Labor Code.

a) The General Contractor shall maintain all certified payroll documents at their office. Copies shall be provided to anyone who provides a request and Owner approves that request. Contractor shall provide copies within ten (10) days of approved request. Contractor shall provide copies, shipping cost, and all other related cost to provide this information at no cost to Owner. Contractor shall maintain certified payroll documents for seven (7) years after Notice of Completion.

4. Penalties: The Contractor shall forfeit as a penalty to said Owner, Fifty Dollars ($50.00) for each laborer, workman or mechanic paid less than the above stipulated rates for any work under this Contract by him or any Subcontractor under him.

5. Enforcement and Verification of Requirements:

a) The records by the Contractor may be checked periodically by an independent enforcement agency to verify compliance with the labor codes and related items.

b) Jobsite interviews may be conducted periodically throughout the duration of the project. The Contractor shall allow access to the project and access to workers during working hours to confirm prevailing wage rates and apprenticeship requirements are followed.

c) Prior to executing the agreement the Contractor shall provide verification of enrollment in an apprenticeship program per Sections 1773.3, 1777.5, 1776 and 1777.6 within the last 12 months.

6. Miscellaneous: Request for exemption from prevailing wage requirements shall be made prior to proposals in time for the Architect to issue an addendum to communicate information to proposers. Request for exemption will not be accepted after above mentioned date.
H. Contractor License And DIR Registration Required.

To perform the work required for this project, Bidder must possess the type of contractor’s license specified in the Notice to Proposers (Request for Proposal), and must be registered with the Department of Industrial Relations (DIR) as a public works contractor. Contractor registration can be accomplished through the portal https://efiling.dir.ca.gov/PWCR/. No CONTRACTOR or subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of § 4104 of the Public Contract Code, for a public works project (submitted on or after March 1, 2015) unless currently registered with the DIR and qualified to perform public work pursuant to Labor Code § 1725.5. No CONTRACTOR or subcontractor may be awarded a contract for public work on a public works project (awarded after April 1, 2015) unless registered with the DIR.

I. AWARD
District shall issue a purchase order, which shall be the notice to proceed. This will be issued only after receipt of required documents.

J. PRELIMINARY NOTICE:
Preliminary Notices must be filed with the Owner with a copy mailed to both the Consultants and the Contractor.

3.0- PROPOSAL

Proposals will be received at the Kern Community College District, 2100 Chester Ave, Room 201 (FACILITIES); Bakersfield, CA 93301 up to April 1, 2021 2:00 pm Formal Bid

Submitted to: Kern Community College District
Bakersfield, California

Submitted by: Name of Firm

Having carefully examined the Proposal and Contract Documents and General Requirements, as well as the premises and the conditions affecting the work, including Addenda (a) No (s), the Undersigned proposes to furnish all material and labor called for by all documents for the "entire work", in accordance with said documents for the sum of:

BASE AMOUNT – Bid shall be determined on Total Bid Amount only

BASE BID
Main building parking lot, main roadway, and upper & lower fire lane $______________
Owner Allowance

$5,000.00

**Total Base Bid plus Allowance Amount**

____________________

The undersigned understands that the time required to complete the work is the essence of the Contract and agrees to commence the work within ten (10) calendar days of the Contract date. The undersigned further agrees that this proposal may not be withdrawn for a period of sixty (60) days after the date set for the opening thereof unless otherwise required by law.

The undersigned agrees, if awarded the Contract, to complete all on site work between **June 1, 2021 through July 31, 2021**.

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

The undersigned hereby certifies that this proposal is genuine and not sham or collusive or made in the interest or in behalf of any person not herein named, and that the undersigned has not directly or indirectly induced or solicited any other proposer to refrain from submitting a proposal, and that the undersigned has not in any manner sought by collusion to secure for himself any advantage over any other proposer.

### 5.0-LIST OF SUBCONTRACTORS

**TO BE SUBMITTED WITH PROPOSAL**

A. In compliance with the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100 and following sections) and any amendments to the Act, each Bidder shall set forth below:

1. The name, location of the place of business California contractor license number and DIR registration number of:
   
   a. Each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the work or improvement to be performed under the Construction Agreement;
   
   b. Each subcontractor licensed by the State of California who, under subcontract to the Bidder, specially fabricates and/or installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent of the Bidder's total bid or Ten Thousand Dollars ($10,000), whichever is greater;
2. The portion of the work which will be done by each subcontractor.

B. The Bidder shall list only one subcontractor for each such portion as is defined by the Bidder in this bid.

C. If the Bidder fails to specify a subcontractor, or if the Bidder specifies more than one subcontractor for the same portion of work to be performed under the contract in excess of one-half of one percent of the Bidder's total bid, the Bidder shall be deemed to have agreed that the Bidder is fully qualified to perform that portion, and that the Bidder alone shall perform that portion.

D. No Bidder whose bid is accepted shall (i) substitute any subcontractor, (ii) permit any subcontractor to be voluntarily assigned or transferred, or allow it to be performed by anyone other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of one-half of one percent of the Bidder’s total bid as to which the original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act.

E. Violations of any provision of the Subletting and Subcontracting Fair Practices Act may be deemed by the OWNER to make the bid non-responsive and/or the Bidder non-responsive.

F. Attach additional sheets, as necessary. Submit with Proposal

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<tr>
<th>SUBCONTRACTOR’S NAME &amp; LOCATION</th>
<th>DESCRIPTION OF PORTION TO BE SUBCONTRACTED</th>
<th>CALIFORNIA CONTRACTOR LICENSE NO.</th>
<th>DIR REGISTRATION NUMBER</th>
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</table>
Firm Name:
By:

[Signature must match that on bid]

Print Name: _________________________
6.0- BID BOND- Submit with Proposal

Be advised that we, _______________________________________________________________
as Principal ("Principal") and _______________________________________________________________
a corporation duly licensed to transact business under the laws of the State of California as Surety ("Surety")
are firmly bound to KERN COMMUNITY COLLEGE DISTRICT as Obligee ("Obligee") in the sum
of $_______________________________________________ for the payment of which the Principal and
the Surety bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally,
by this Bond.

The Principal has submitted a proposal for _____________________________________________
(list project on Proposal)

The condition of our obligation is this: if the Principal is awarded the contract upon its proposal, and
shall, within the required number of days after the notice of award, execute a contract with the Obligee in
accordance with the contract documents, submit the required payment and performance bonds, and provide
all other required documents, then this obligation shall be null and void; but in the event that the Principal fails
and/or refuses to execute and deliver those documents, this bond will be charged with the costs of the damages
experienced by the Obligee as a result of that refusal, including but not limited to, publication costs,
the difference in money between the amount of the bid of the Principal and the amount for which the Obligee
may legally contract with another party to perform the work if the amount is in excess of the former; building
lease or rental costs, transportation costs, professional service costs, and additional salary costs that result
from the delay due to the Principal’s default on the awarded contract. In no event, however, shall the Surety’s
liability exceed the penal sum indicated above.

The Surety, for value received, stipulates and agrees that its obligations and its bond shall not be
impairred or affected by an extension of the time within which the Obligee may accept such bid; and Surety
waives notice of any time extension.

Dated:                PRINCIPAL
By:  ____________________________________
Title:  ___________________________________

Dated:                SURETY
By:  ____________________________________
Title:  ___________________________________
7.0- NON-COLLUSION AFFIDAVIT: Submit with Proposal

State of California )

) ss.

County of _____________________)

__________________________, being duly sworn, deposes and says:

That he or she is the _______________________________ (position)
of ______________________________________________ (name of proposer), the party making the proposal; that the proposal is not made in the interest of, or on behalf of any undisclosed person, partnership, company, association, organization or corporation; that the proposal is genuine and not collusive or sham; that the proposer has not directly or indirectly induced or solicited any other proposer to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any proposer or anyone else to put in a sham proposal, or that anyone shall refrain from submitting a proposal; that the proposer has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the proposer or any other proposer, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other proposer, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and, further, that the proposer has not, directly or indirectly, submitted his or her proposal price or any price breakdown, or their contents, or divulged relative information or data, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

________________________________________
(Firm Name)

________________________________________
(Printed Name - Authorized Agent)

________________________________________
(Signature - Authorized Agent)

Subscribed and sworn to before me on ____________________________, 20 ______.

________________________________________
Notary Public

NOTARY SEAL
10.0- GENERAL CONDITIONS OF AGREEMENT

1) The college will issue a Purchase Order for all work included in this Request for Proposal based on the Contractor’s proposal to do certain work for the said Owner, specified and described in certain drawings and specifications, and entitled on the Bid Proposal, in strict accordance with drawings and specifications prepared and attached to RFP.

2) Whereas, the Contractor, before signing the enclosed proposal, has carefully read and examined in connection therewith said proposal and specifications and has carefully examined the site where said work is to be done, and has investigated the character of such work and the materials required to be furnished, and by reason of such reading, examination and investigation, the said Contractor agrees that he thoroughly understands the intent and meaning of this proposal and all component parts of said proposal and the requirements, covenants, stipulations and restrictions thereof.

3) In consideration of the promises and of the payments hereinafter to be made by the Owner to and on account of said Contractor, and the understanding of said Contractor to do said work the College and Contractor agree that:

   a) This Contractor shall receive and accept the sum on proposal herein submitted, as full compensation for furnishing all materials and doing all the work contemplated and embraced in this Contract, and for furnishing all necessary tools, machinery, implements, apparatus and other means of construction; also all loss or damage arising out of the nature of the work to be done under said specifications, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered during the progress of said work, and before the acceptance thereof by said Owner, and shall be responsible for the consequences of his own negligence or carelessness or discontinuance of the work, and for well and faithfully completing the work in the manner and according to the drawings and specifications and all requirements of the College and any and all parties having jurisdiction there over, for the whole thereof, the following sum which represents the Contract Price.

   b) Payments: The Owner agrees, in consideration of the performance of this Contract, to pay the Contractor in the following manner:

      i) Payments will be made only on the certificate of the Owners field representative.

      ii) Monthly payments shall be made to the Contractor in amounts equal to ninety percent (90%) of the estimated value of the work done and the materials furnished and incorporated in the work during the month preceding the date upon which such value is estimated plus ninety percent (90%) of the estimated value of all materials which, on the date of estimation of value, are suitably stored on the site for incorporation into the work; provided that no such monthly payment, or payment of any kind, shall theretofore have been made for any such work done or materials furnished and incorporated or materials suitably stored on the site. The aforesaid estimation of value shall be made by the Owners Representative and noted by him upon the certificates furnished by him pursuant to paragraphs herein.

      iii) Upon substantial completion of the work, a sum sufficient to increase the total payments to ninety percent (90%) of the Contract Price, less an amount determined by Owner to be adequate to complete any unfurnished part of the work by another Contractor should the work not be completed within a reasonable time established by the Owner.

      iv) The final payment shall be made thirty-five (35) days after receipt of the recorded Notice of Completion date, provided that: The Contractor shall furnished satisfactory evidence that all claims for labor and materials have been paid and that no claims shall have been presented to the Owner by any person or persons based upon any act or omission of the Contractor, and no Stop Notices have been filed against said work or the property whereon it was done.
(1) No certificates given or payments made on account of any Contract shall constitute an 
acceptance of any equipment, material or work which may subsequently be found to be defective.

c) Time of Completion. The Contractor agrees to commence the work within five (5) calendar days 
from the date of the notice to proceed and/or purchase order. Failure to obtain approval of the 
required documents, within the allotted time, shall not be cause for extension of the time of 
construction as set forth hereafter.

i) The Contractor further agrees to construct and execute all of the work described in said 
drawings, specifications, proposals, addenda and any and all other requirements, covenants, 
stipulations and restrictions, within 16 calendar days from and after the date of commencement, 
said date of commencement being agreed upon as the fifth (5th) calendar day following the date 
of the notice to proceed and/or purchase order. Owner shall issue actual start date to Contractor.

ii) Both parties agree that the aforementioned stipulated contract period to be a reasonable time 
scale for completion of the work and Contractor will provide best endeavors to complete the work 
within the contract period.

iii) If the Contractor shall neglect, fail or refuse to complete the work within the time herein specified, 
then the contractor does hereby agree, as a part consideration for awarding of this Contract to 
pay to the Owner the sum of:

Zero Dollars - No Cents

DOLLARS ($0.00 ) per day

plus such additional costs as may be incurred by the College because of such delays, not as a 
penalty but as liquidated damages for such breach of Contract as hereinafter set forth for each 
and every day that the Contractor shall be in default after the time stipulated in the Contract for 
completing the work.

iv) The said amount is fixed and agreed upon by and between the Contractor and the Owner 
because of the impracticability and extreme difficulty of fixing and ascertaining the actual 
damages the Owner would in such event sustain, and said amount is agreed to be the amount of 
damages which the Owner would sustain and said amounts shall be retained from time to time 
by the Owner from the current periodical estimates.

v) It is further agreed that time is the essence of each and every portion of this Contract and of the 
specifications wherein a definite and certain length of time is fixed for the performance of any act 
whatsoever; and where under the Contract an additional time is allowed for the completion of 
any work, the new time limit fixed by such extension shall be of the essence of this Contract. 
Provided, that the Contractor shall not be charged with liquidated damages or any excess cost 
when the delay in completion of the work is due.

(1) To any preference, priority or allocation order duly issued by the Government.

(2) To unforeseeable cause beyond the control and without the fault or negligence of the 
Contractor, including but not restricted to acts of God, or of the public enemy, acts of the 
Owner, acts of another Contractor in the performance of the Contract with the Owner, fires, 
floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe 
weather, and

(3) To any delays of subcontractors occasioned by any of the causes specified in subsections 
(1) and (2) of herein. Provided, further, that the Contractor shall, within seven (7) days from 
the beginning of such delay, notify the Owner, in writing , of the causes of delay, who shall 
ascertain the facts and extent of the delay and notify the Contractor within a reasonable time 
of its decision in the matter.

d) Drawings and Specifications. This Contract, the drawings and the specifications have been 
prepared, and are intended to supplement one another. The drawings and specifications shall be 
deemed by this reference to be incorporated within this Contract, the drawings shall be deemed by 
this reference to be incorporated within the specifications, and the specifications shall be deemed by 
this reference to be incorporated with the drawings. In the event a conflict is found to exist between 
the drawings and specifications, the College shall interpret. In the event that the drawings and 
specifications, or either of them shall be found to conflict with this Contract, then this Contract shall 
be govern. Omissions from this Contract of items of provisions present in the specifications or 
drawings or either of them shall not be deemed a conflict within the meaning of this Article.
e) Changes. Should the Owner, at any time during the progress of the work desire any alterations, or deviations in, or additions to, or omissions from the Contract or the drawings or specifications, said Owner, or representative thereof, shall be at liberty to order them, in writing, and the same shall in no way affect or make void this Contract, but the amount thereof shall be added to, or deducted from, the amount of the Contract Price aforesaid, as the case may be, by a fair and reasonable valuation. This Contract, subject to the provisions of Article II (a) hereof, shall be deemed completed when the work is finished in accordance with the original drawings and specifications, as amended by such changes, whatever may be the nature or extent thereof.

i) No such changes, whatever may be the nature, or modification shall release or exonerate any surety or sureties upon any guarantee or bond given in connection with this Contract, if required.

ii) Rules of Practice: The rule of practice to be observed in this Contract shall be that upon the demand of either the Owner or the Contractor, the character or valuation of any and all changes, omissions, or extra work shall be agreed upon and fixed in writing, signed by the Owner and the Contractor, prior to execution.

f) Acceptance of Work. The payment of the progress payments by the Owner shall not be construed as an absolute acceptance of the work done up to the time of such payments, except as to such matters as are open and obvious, but the entire work, and at the time when it shall be claimed by the Contractor that the Contract and work is completed. Liability under the bonds is to continue for one (1) year from the date of acceptance and bonds will not be released until such date.

g) Failure to provide workmen and materials. If the Contractor at any time during the progress of the work should refuse or neglect, without the fault of the Owner, to supply sufficient amount of materials or enough workmen to complete the Contract within the time herein set forth, due allowance being made for the contingencies provided for herein, for a period of more than seven (7) days after having been notified by the Owner in writing to furnish the same, the Owner shall have the power to furnish and provide said materials and/or workmen to finish the said work, and the reasonable expense thereof shall be deducted from the amount of the Contract Price.

h) Penalties. This Contractor shall forfeit, as a penalty to the said Owner, the sum of fifty dollars ($50.00) for each laborer, workman, or mechanic employed in the execution of this Contract, or any sub-contractor under him, for each calendar day during which such laborer, workman or mechanic is required or permitted to labor more than eight (8) hours in violation of Section 1810-1811, Chapter One, of Division Two, Part Seven of the Labor Code of the State of California, and said Owner, when making payments of money due under this Contract, shall withhold and retain there from all sums and amounts which have been forfeited pursuant to the herein said stipulation.

i) Insurance and Bonds: Insurances and bonds, as set forth in the supporting contract documents, shall be maintained in effect during the period of this Contract.

j) Relations to Bid Proposals: If proposal is accepted by owner, be it further stipulated and agreed that said Owner does promise and agree to employ the said Contractor to provide the materials and do the work according to the terms and conditions herein contained and referred to, for the prices aforesaid, and herein contracts to pay the same at the time, in the manner and upon the conditions set forth above; and the said parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to the full performance of the covenants herein contained. It is further agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid proposal of said Contract, then this instrument shall control and nothing herein shall be considered as an acceptance of the said terms of said proposal conflicting herewith.

k) Asbestos/PCB-containing products and lead plumbing items: Contractor agrees that lead plumbing domestic water items, asbestos, PCB, -containing products or materials will not be used or substituted in performing work under the Agreement. At the completion of work under the Agreement, Contractor will certify in writing to the Owner that to the best of Contractor's knowledge, no lead plumbing domestic water items, asbestos/PCB-containing products or materials were used or substituted in performing work under the Agreement.

l) Compliance with air pollution and storm water prevention control rules: Contractor shall comply with all air pollution control rules, regulations, ordinances, and statutes which apply to any work performed pursuant to the Contract, including any air pollution control rules, regulations, ordinances, and
m) Contractor-Employee requirements: By submitting proposal, the Contractor certifies he is aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workmen's compensation or to undertake self-insurance in accordance with the provisions of that code, and that he will comply with such provisions before commencing the performance of the work of this Contract.

   i) In accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure payment of compensation to his employees.

   ii) The Contractor and Subcontractors under him shall comply with the provisions of Division 2, Part 7, Chapter 1, Article 2, Sections 1770-1780 with particular reference to the employment and use of apprentices and other provisions that require him to make travel and subsistence payments to each workman needed to execute the work, as such collective bargaining agreements filed in accordance with the Labor Code, and to pay not less than the minimum per diem wages as determined by the Director of the Department of Industrial Relations, on file in the principal office of the Owner.

   iii) Special attention is directed to Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code and Title 8, California Code of Regulations Section 200 et. seq. Each contractor and/or subcontractor must, prior to commencement of the public works contract, contact the Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, or one of its branch offices regarding apprentices and specifically the required ratio there under. Responsibility for compliance with this section lies with the prime Contractor. During the performance of this Contract, the Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin.

n) Notices: All notices herein provided to be given or which may be given by either party to the other shall be deemed to have been fully given when made in writing and deposited with the United States Postal Service, Registered or Certified, and postage prepaid and addressed as follows:

   i) Owner, person and address on title sheet of RFP.

   ii) Contractor, person and address on proposal submitted by contractor herein.

   iii) The address to which the notices shall or may be mailed as aforesaid to either party shall or may be changed by written notice given by such party to the other, as hereinbefore provided, but nothing herein contained shall preclude the giving of any such notice by personal service.
14.0- CONTRACTOR’S CERTIFICATE REGARDING WORKER’S COMPENSATION:
Submit with Proposal

Labor Code Section 3700 provides:

"Every employer except the State and all political subdivision or institutions thereof, shall secure the payment of compensation in one or more of the following ways:

"(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

"(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees."

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Workers Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with those provisions before commencing the performance of the work for this contract.

CONTRACTOR:

_________________________________________  ___________________________  ________
By (type or print)                        Title    Dated

(In accordance with Article 5 [commencing at Section 1860], Chapter 1, Part 7, Division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this contract.)

17.0- PREVAILING WAGE COMPLIANCE CERTIFICATION: Submit with Proposal

In submitting this proposal, I hereby certify that I will conform to the State of California Public Works Contract Requirements regarding wages; benefits; on-site audits with 48-hour notice; payroll records; and, apprentice and trainee employment requirements.

_________________________________________  ___________________________  ________
Contractor (type or print)                        Contractor’s signature  Date
22.0-CERTIFICATE OF ATTENDANCE AT MANDATORY JOB WALK
Submit with Proposal

On projects including a mandatory job walk, this form must be submitted with the bid or bidder will be declared “non-responsive”

PROJECT TITLE/ BID #: CCC Main Building Parking Lot Repair
OWNER: Kern Community College District

It is the Owner’s intention to provide all contractors with equal access to information regarding this project. Further, the Owner has issued plans and specifications to bidders and has allowed bidders the opportunity to inspect the site with knowledgeable personnel at the job walk. Therefore it is understood that the Owner may declare the bid non-responsive for any of the following conditions:

1. If a bidder attends the entire mandatory job walk but fails to complete this form;
2. If a bidder fails to attend the entire mandatory job walk;
3. If a bidder fails to attend the entire mandatory job walk but certifies that he was in attendance. [NOTE: This may also lead to a determination that the bidder is non-responsive.]

Please check one of the following:

[ ] I attended the entire mandatory job walk

--OR--

[ ] I did not attend the entire mandatory job walk.

I hereby certify under penalty of the perjury laws of the State of California that the foregoing is true and correct.

Executed at , California, on , 20 .

Firm Name:

By:

Print Name Above

Signed _____________________________________________

Print Title:
KERN COMMUNITY COLLEGE DISTRICT - Projects $0 to $175,000
NOTICE OF AWARD AND REQUEST FOR SUBMITTAL OF REQUIRED DOCUMENTS

This notice shall confirm your notification of award. The below items are required to be submitted prior to Notice to Proceed being issued. Per Contract Documents, you have 10 days from this notice of award to provide the following:

***

PROJECT: ___________________________ DATE NOTICE OF AWARD ____________
PROJECT NO: ________________________ DATE INITIAL REQUEST ____________
CONTRACTOR: ______________________ DATE DUE BACK ____________

STATUS

X Initial request for documents

. Incomplete see below

. Accepted as complete

Date completed: ______________

REQUIRE DOCUMENTS:

1. Bid Bond for 10% of the Contract Amount

2. Payment bond for 100% of the contract amount
   (required only projects $25,000 to $175,000)
   a. Bond document California Admitted proof
   b. Bond document US Treasury listing proof
   c. Bond document power of attorney and proof able to sign documents
   d. Bond document proof of ability to bond within their capacity-(memo)
   e. Bond proof/valid & issued from underwriter-(add to memo #6)

3. Workers compensation & employers liable endorsement

4. Comprehensive General Liability Insurance $1,000,000 aggregate

5. Proof of License-copy front and back of pocket license

6. Comprehensive automobile liability - $1,000,000

7. Executed proposal original signature by contractor

8. Other items and notes for complete package:

cc: Contractor, District, File

For official use only:

Bonding Company: ______________________________________________________________
AM Best Number: ______________________________________________________________
Location: ____________________________
Documents from: ____________________________
AM Best rating: ______________________________________________________________
US Treasury Listed: ___________________________________________________________
24.0 PROJECT SCOPE

A. PROJECT DESCRIPTION: Maintenance of Main Building Parking Lot

B. WORK SEQUENCE:

1. The Work will be conducted in one phase to provide the least possible interference to the activities of the Owner's personnel and to permit an orderly transfer of personnel and equipment to all facilities.

C. CONTRACTOR USE OF PREMISES:

1. General: Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public.
   a. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
   b. Keep driveways and entrances serving the premises clear and available to the Owner and the Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

2. Use of the Existing Building: Maintain the existing buildings in a weather tight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.

D. OWNER OCCUPANCY:

a) See attachments.

b) Clean up after complete
1. Full Owner Occupancy: The Owner will occupy the site and existing building during the entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations. All work must be scheduled with Porterville College Maintenance & Operations Director.

E. GENERAL SCOPE OF WORK:

1. Contractor to inspect project site and inspect existing conditions/utilities.
2. Scheduling of work to be coordinated with college for non-interruption during office hours, c/o M/O Director.
3. Provide all necessary tools and equipments to complete work within time frame stated in contract.
4. Contractor to inform Owner one (1) week before work is completed to schedule testing and inspection. Contractor to guarantee workmanship one (1) year.
5. Work areas shall be cleaned/cleared on a daily basis. All construction debris to be removed from site upon completion of work by contractor.
SCOPE of WORK

PROJECT DESCRIPTION: ON SITE INSTALLATION DATES: June 1, 2021 through July 31, 2021

1) The scope of work will include
   • Clean Parking lot areas
   • Replace any damaged stop bumpers
   • Clean all cracks in asphalt
   • Crack seal all visible cracks
   • Install new oil sand slurry
   • Restripe parking lot and roadways
   • Repaint existing arrows
   • Repaint existing curbs
   • Repaint existing stop and stop bars
   • Replace any outdated ADA signage
   • Owner Allowance of $5,000.00

Contractor’s responsibility:

Protect existing work,
Clean up any spills or over spray
Final Clean up
Warranty
Recommended Performance Guideline
For Emulsified Asphalt Slurry Seal

A105
(Revised May 2020)

NOTICE

It is not intended or recommended that this guideline be used as a verbatim specification. It should be used as an outline, helping user agencies establish their particular project specification. Users should understand that almost all geographical areas vary as to the availability of materials. An effort should be made to determine what materials are reasonably available, keeping in mind system compatibility and specific job requirements. Contact ISSA for answers to questions and for a list of ISSA member contractors and companies.

International Slurry Surfacing Association
800 Roosevelt Road C-312
Glen Ellyn, IL  60137
(630) 942-6577
www.slurry.org

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RECOMMENDED PERFORMANCE GUIDELINE FOR EMULSIFIED ASPHALT SLURRY SEAL

1. SCOPE

The intent of this guideline is to aid in the design, testing, quality control, measurement and payment procedures for the application of Emulsified Asphalt Slurry Seal Surfacing.

2. DESCRIPTION

Slurry seal shall consist of a mixture of an emulsified asphalt, mineral aggregate, water, and additives, proportioned, mixed and uniformly spread over a properly prepared surface as directed by the Buyer's Authorized Representative (B.A.R.). The slurry seal shall be applied as a homogeneous mat, adhere firmly to the prepared surface, and have a skid-resistant texture throughout its service life.

3. SPECIFICATIONS

It is not normally required to run all tests on every project. A compilation of results from the listed tests should be indicative of system performance. Failure to meet specification for an individual test does not necessarily disqualify the system. If, for example, the system to be used on the project has a record of good performance, individual requirements for testing may be waived. Agency and testing methods are listed in the appendix (see Appendix A) and form a part of this guideline.

4. MATERIALS

4.1 EMULSIFIED ASPHALT

The emulsified asphalt, and emulsified asphalt residue, shall meet the requirements of AASHTO M 140 or ASTM D 977 for SS-1 or SS-1h. For CSS-1, CSS-1h, or CQS-1h, it shall meet the requirements of AASHTO M 208 or ASTM D 2397. Each load of emulsified asphalt shall be accompanied with a Certificate of Analysis/Compliance to indicate that the emulsion meets the specifications.

4.2 AGGREGATE

4.2.1 GENERAL

The mineral aggregate used shall be the type specified for the particular application requirements of the slurry seal. The aggregate shall be crushed stone such as granite, slag, limestone, chat, or other high-quality aggregate, or combination thereof. To assure the material is 100 percent crushed, the parent aggregate will be larger than the largest stone in the gradation to be used.

4.2.2 QUALITY TESTS

The aggregate should meet agency specified polishing values and these minimum requirements:
4.2.3 GRADATION

When tested in accordance with AASHTO T 27 (ASTM C 136) and AASHTO T 11 (ASTM C 117), the mix design aggregate gradation shall be within one of the following bands (or one recognized by the local paving authority):

<table>
<thead>
<tr>
<th>SIEVE SIZE</th>
<th>TYPE I % PASSING</th>
<th>TYPE II % PASSING</th>
<th>TYPE III % PASSING</th>
<th>STOCKPILE TOLERANCE FROM THE MIX DESIGN GRADATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8 (9.5 mm)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>± 5%</td>
</tr>
<tr>
<td>#4 (4.75 mm)</td>
<td>100</td>
<td>90 - 100</td>
<td>70 - 90</td>
<td>± 5%</td>
</tr>
<tr>
<td>#8 (2.36 mm)</td>
<td>90 - 100</td>
<td>65 - 90</td>
<td>45 - 70</td>
<td>± 5%</td>
</tr>
<tr>
<td>#16 (1.18 mm)</td>
<td>65 - 90</td>
<td>45 - 70</td>
<td>28 - 50</td>
<td>± 5%</td>
</tr>
<tr>
<td>#30 (600 um)</td>
<td>40 - 65</td>
<td>30 - 50</td>
<td>19 - 34</td>
<td>± 5%</td>
</tr>
<tr>
<td>#50 (300 um)</td>
<td>25 - 42</td>
<td>18 - 30</td>
<td>12 - 25</td>
<td>± 4%</td>
</tr>
<tr>
<td>#100 (150 um)</td>
<td>15 - 30</td>
<td>10 - 21</td>
<td>7 - 18</td>
<td>± 3%</td>
</tr>
<tr>
<td>#200 (75 um)</td>
<td>10 - 20</td>
<td>5 - 15</td>
<td>5 - 15</td>
<td>± 2%</td>
</tr>
</tbody>
</table>

The gradation of the aggregate stockpile shall not vary by more than the stockpile tolerance from the mix design gradation (indicated in the table above) while also remaining within the specification gradation band. The percentage of aggregate passing any two successive sieves shall not change from one end of the specified range to the other end.

The aggregate will be accepted at the job location or stockpile based on five gradation tests sampled according to AASHTO T 2 (ASTM D 75). If the average of the five tests is within the stockpile tolerance from the mix design gradation, the material will be accepted. If the average of those test results is out of specification or tolerance, the contractor will be given the choice to either remove the material or blend additional aggregate with the stockpile material to bring it into compliance. Materials used in blending must meet the required aggregate quality test specifications in Section 4.2.2 before blending and must be blended in a manner to produce a consistent gradation. Aggregate blending may require a new mix design.
Screening shall be required at the stockpile if there are any problems created by oversized materials in the mix.

**Type I.** This aggregate gradation is used to fill surface voids, address moderate surface distresses, and provide protection from the elements. The fineness of this mixture provides the ability for some crack penetration.

**Type II.** This aggregate gradation is used to fill surface voids, address more severe surface distresses, seal, and provide a durable wearing surface.

**Type III.** This aggregate gradation provides maximum skid resistance and an improved wearing surface.

### 4.3 MINERAL FILLER

Mineral filler may be used to improve mixture consistency and to adjust mixture breaking and curing properties. Portland cement, hydrated lime, limestone dust, fly ash, or other approved filler meeting the requirements of ASTM D 242 shall be used if required by the mix design. Typical use levels are normally 0.0 - 3.0 percent and may be considered part of the aggregate gradation.

### 4.4 WATER

The water shall be free of harmful salts and contaminants. If the quality of the water is in question, it should be submitted to the laboratory with the other raw materials for the mix design.

### 4.5 ADDITIVES

Additives may be used to accelerate or retard the break/set of the slurry seal. Appropriate additives, and their applicable use range, should be approved by the laboratory as part of the mix design.

### 5. LABORATORY EVALUATION

#### 5.1 GENERAL

Before work begins, the contractor shall submit a signed mix design covering the specific materials to be used on the project. This design will be performed by a laboratory which has experience in designing Emulsified Asphalt Slurry Seal Surfacing. After the mix design has been approved, no material substitution will be permitted unless approved by the B.A.R.

ISSA can provide a list of laboratories experienced in slurry seal design.

#### 5.2 MIX DESIGN

Compatibility of the aggregate, emulsified asphalt, water, mineral filler and other additives shall be evaluated in the mix design. The mix design shall be completed using materials consistent with those supplied by the contractor for the project. Recommended tests and values are as follows:
<table>
<thead>
<tr>
<th>TEST</th>
<th>ISSA TB NO.</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix Time @ 77°F (25°C)</td>
<td>TB 113</td>
<td>Controllable to 180 Seconds Minimum</td>
</tr>
<tr>
<td>Slurry Seal Consistency</td>
<td>TB 106</td>
<td>0.79 – 1.18 inches (2.0 – 3.0 cm)</td>
</tr>
<tr>
<td>Wet Cohesion</td>
<td>TB 139 (For quick-traffic systems)</td>
<td>12 kg-cm Minimum</td>
</tr>
<tr>
<td>@ 30 Minutes Minimum (Set)</td>
<td></td>
<td>20 kg-cm or Near Spin Minimum</td>
</tr>
<tr>
<td>@ 60 Minutes Minimum (Traffic)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wet Stripping</td>
<td>TB 114</td>
<td>Pass (90% Minimum)</td>
</tr>
<tr>
<td>Wet-Track Abrasion Loss</td>
<td>TB 100</td>
<td>75 g/ft² (807 g/m²) Maximum</td>
</tr>
<tr>
<td>One-hour Soak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess Asphalt by LWT Sand Adhesion</td>
<td>TB 109 (Critical in heavy-traffic areas)</td>
<td>50 g/ft² (538 g/m²) Maximum</td>
</tr>
</tbody>
</table>

The Wet Track Abrasion Test is performed under laboratory conditions as a component of the mix design process. The purpose of this test is to determine the minimum asphalt content required in a slurry seal system. The Wet Track Abrasion Test is not recommended as a field quality control or acceptance test. ISSA TB 136 describes potential causes for inconsistent results of the Wet Track Abrasion Test.

The mixing test is used to predict the time the material can be mixed before it begins to break. It can be a good reference check to verify consistent sources of material. The laboratory should verify that mix and set times are appropriate for the climatic conditions expected during the project.

The laboratory shall also report the quantitative effects of moisture content on the unit weight of the aggregate (bulking effect) according to AASHTO T19 (ASTM C29). The report must clearly show the proportions of aggregate, mineral filler (if used) and emulsified asphalt based on the dry weight of the aggregate.

The percentages of each individual material required shall be shown in the laboratory report. Based on field conditions, adjustments within the specific ranges of the mix design may be required.

The component materials shall be designed within the following limits:

<table>
<thead>
<tr>
<th>COMPONENT MATERIALS</th>
<th>SUGGESTED LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual Asphalt</td>
<td>Type I: 10 - 16%</td>
</tr>
<tr>
<td></td>
<td>Type II: 7.5 - 13.5%</td>
</tr>
<tr>
<td></td>
<td>Type III: 6.5 - 12%</td>
</tr>
<tr>
<td></td>
<td>(Based on dry weight of aggregate)</td>
</tr>
<tr>
<td>Mineral Filter</td>
<td>0.0 - 3.0%</td>
</tr>
<tr>
<td></td>
<td>(Based on dry weight of aggregate)</td>
</tr>
<tr>
<td>Additives</td>
<td>As needed</td>
</tr>
<tr>
<td>Water</td>
<td>As required to produce proper mix consistency</td>
</tr>
</tbody>
</table>
5.3 **MIX TOLERANCES**

Tolerances for the slurry seal mixture are as follows:

a. After the residual asphalt content is determined, a variation ±1% by weight of dry aggregate will be permitted.

b. The slurry consistency, as determined according to ISSA TB No. 106, shall not vary more than ±0.2" (±0.5 cm) from the job mix formula after field adjustments.

c. The rate of application shall not vary more than ±2 lb/yd² (±1.1 kg/m²) when the surface texture does not vary significantly.

6. **EQUIPMENT**

6.1 **GENERAL**

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

6.2 **MIXING EQUIPMENT**

The machine shall be specifically designed and manufactured to apply slurry seal. The material shall be mixed by an automatic-sequenced, self-propelled, slurry seal mixing machine of either truck-mounted or continuous-run design. Continuous-run machines are those that are equipped to self-load materials while continuing to apply slurry seal. Either type machine shall be able to accurately deliver and proportion the mix components through a mixer and to discharge the mixed product on a continuous-flow basis. Sufficient storage capacity for all mix components is required to maintain an adequate supply to the proportioning controls.

The B.A.R. should decide which type of equipment best suits the specific project. In some cases, truck-mounted machines may be more suited, i.e. cul-de-sacs, small narrow roadways, parking lots, etc. On some projects, continuous-run equipment may be chosen due to the continuity of mix and the reduction of start-up joints. Generally, truck-mounted machines or continuous-run machines may be used on similar projects.

If continuous-run equipment is used, the machine shall provide the operator with full control of the forward and reverse speeds during application of the slurry seal. It shall be equipped with a self-loading device and opposite-side driver stations. The self-loading device, opposite-side driver stations, and forward and reverse speed controls shall be of original-equipment-manufacturer design.

6.3 **PROPORTIONING DEVICES**

Individual volume or weight controls for proportioning mix components shall be provided and properly labeled. These proportioning devices are used in material calibration to determine the material output at any time.
6.4 SPREADING EQUIPMENT

The mixture shall be placed uniformly by means of a spreader box attached to the paver and mechanically equipped, if necessary, to agitate and spread the material evenly throughout the box. With some quick-set systems, mechanical agitation may extend mix time. The slurry seal mixture shall have the proper consistency as it enters the spreader box. Spraying of additional water into the spreader box will not be permitted.

A front seal shall be utilized to ensure no loss of the mixture at the road contact point. The rear seal shall act as final strike-off and shall be adjustable. The spreader box and rear seal shall be designed and operated to provide uniform mix consistency behind the box. The spreader box shall have suitable means to side shift to compensate for variations in the pavement width. A burlap drag or other approved screed may be attached to the rear of the spreader box to provide a highly textured uniform surface. A drag stiffened by hardened slurry is ineffective and should be replaced immediately.

6.5 AUXILIARY EQUIPMENT

Suitable surface preparation equipment, traffic control equipment, hand tools, and other support and safety equipment necessary to perform the work shall be provided by the contractor.

7. CALIBRATION

Each mixing unit to be used in performance of the work shall be calibrated in the presence of the B.A.R. prior to the start of the project. Previous calibration documentation covering the exact materials to be used may be acceptable, provided the calibration was performed during the previous 60 days. The documentation shall include an individual calibration of each material at various settings, which can be related to the machine's metering devices. Any equipment 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 accepted. ISSA Inspector’s Manual describes a method of machine calibration. ISSA contractors and/or machine manufacturers may also provide methods of machine calibration.

8. WEATHER LIMITATIONS

The slurry seal shall not be applied if either the pavement or air temperature is below 50°F (10°C) and falling, but may be applied when both pavement and air temperatures are above 45°F (7°C) and rising. No slurry seal shall be applied when there is the possibility of freezing temperatures at the project location within 24 hours after application. The mixture shall not be applied when weather conditions prolong opening to traffic beyond a reasonable time.

9. NOTIFICATION AND TRAFFIC CONTROL

9.1 NOTIFICATION

Homeowners and businesses affected by the paving shall be notified at least one day in advance of the surfacing. Should work not occur on the specified day, a new notification will
be distributed. The notification shall be posted in written form, stating the time and date that
the surfacing will take place. If necessary, signage alerting traffic to the intended project
should be posted.

9.2 TRAFFIC CONTROL

Traffic control devices shall be in accordance with agency requirements and, if necessary,
conform to the requirements of the Manual on Uniform Traffic Control Devices. Opening to
traffic does not constitute acceptance of the work.

In areas that are subject to an increased rate of sharp-turning vehicles, additional time may
be required for a more complete cure of the slurry seal mat to prevent damage. Tire marks
may be evident in these areas after opening but typically diminish over time with rolling
traffic.

10. SURFACE PREPARATION

10.1 GENERAL

Prior to applying the slurry seal, loose material, oil spots, vegetation, and other objectionable
material shall be removed. Any standard cleaning method will be acceptable. If water is
used, cracks shall be allowed to dry thoroughly before slurry surfacing. Manholes, valve
boxes, drop inlets and other service entrances shall be protected from the slurry seal by a
suitable method. The B.A.R. shall approve the surface preparation prior to surfacing.

10.2 TACK COAT

Normally, tack coat is not required unless the surface to be covered is extremely dry and
raveled or is concrete or brick. If required, the emulsified asphalt should be SS, CSS, or the
slurry seal emulsion. Consult with the slurry seal emulsion supplier to determine dilution
stability. The tack coat may consist of one part emulsified asphalt/three parts water and
should be applied with a standard distributor. The distributor shall be capable of applying the
dilution evenly at a rate of 0.05-0.15 gal/yd² (0.23-0.68 l/m²). The tack coat shall be allowed
to cure sufficiently before the application of slurry seal. If a tack coat is to be required, it must
be noted in the project plans.

10.3 CRACKS

It is recommended to treat cracks wider than 0.25” (0.64cm) in the pavement surface with
an approved crack sealer prior to application of the slurry seal.

11. APPLICATION

11.1 GENERAL

If required, it is recommended that a test strip be placed in conditions similar to those
expected to be encountered during the project.

The surface may be wetted with water ahead of the spreader box. The rate of application of
the water spray shall be adjusted during the day to suit temperature, surface texture, humidity, and dryness of the pavement. Pooling or standing water shall be avoided.

The slurry seal shall be of the desired consistency upon exiting the mixer. A sufficient amount of material shall be carried in all parts of the spreader box at all times so that complete coverage is achieved. Overloading of the spreader shall be avoided.

No lumping, balling, or unmixed aggregate shall be permitted.

Significant streaks, such as those caused by oversized aggregate or broken mix, shall not be left in the finished surface. If excessive streaking occurs, the job will be stopped until the cause of the problem has been corrected. Some situations may require screening the aggregate prior to loading it into the units going from the stockpile area to the jobsite.

11.2 RATE OF APPLICATION

The slurry seal mixture shall be of the proper consistency at all times so as to provide the application rate required by the surface condition. The average application rate shall be in accordance with the following table:

<table>
<thead>
<tr>
<th>AGGREGATE TYPE</th>
<th>LOCATION</th>
<th>SUGGESTED APPLICATION RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>Parking Areas</td>
<td>8 - 12 lb/yd² (4.3 - 6.5 kg/m²)</td>
</tr>
<tr>
<td></td>
<td>Urban and Residential Streets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Airport Runways</td>
<td></td>
</tr>
<tr>
<td>Type II</td>
<td>Urban and Residential Streets</td>
<td>10 - 18 lb/yd² (5.4 - 9.8 kg/m²)</td>
</tr>
<tr>
<td></td>
<td>Airport Runways</td>
<td></td>
</tr>
<tr>
<td>Type III</td>
<td>Primary and Interstate Routes</td>
<td>15 - 22 lb/yd² (8.1 - 12.0 kg/m²)</td>
</tr>
</tbody>
</table>

Suggested application rates are based upon the weight of dry aggregate in the mixture. Application rates are affected by the unit weight and gradation of the aggregate and the demand of the surface to which the slurry seal is being applied.

11.3 JOINTS

No excess buildup, uncovered areas, or unsightly appearance shall be permitted on longitudinal or transverse joints. The contractor shall provide suitable equipment to produce a minimum number of longitudinal joints throughout the project. When possible, a longitudinal joint shall not be placed in a wheel path. Less than full box width passes will be used only as required. If less than full box width passes are used, they shall not be the last pass of any paved area. A maximum of 6” (15.2 cm) shall be allowed for overlap of longitudinal joints.
11.4 MIXTURE

The slurry seal shall possess sufficient stability so that premature breaking of the material in the spreader box does not occur. The mixture shall be homogeneous during and following mixing and spreading. It shall be free of excess liquids which create segregation of the aggregate. Spraying of additional water into the spreader box will not be permitted.

11.5 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 handworked shall be lightly dampened prior to mix placement. Handwork shall exhibit the same finish as that applied by the spreader box and shall be completed prior to final surfacing.

11.6 LINES

Care shall be taken to apply straight lines along curbs, shoulders, and intersections. No run-off on these areas will be permitted. Roofing felt or heavy plastic may be used to begin or end a pull cleanly. This also provides for easy removal of excess slurry.

11.7 ROLLING

Rolling is usually not necessary for slurry seal on roadways. Airports and parking areas should be rolled by a self-propelled, 10-ton (maximum) pneumatic tire roller equipped with a water spray system. All tires should be inflated per manufacturer’s specifications. Rolling shall not start until the slurry has cured sufficiently to avoid damage by the roller. Areas which require rolling shall receive a minimum of two (2) full coverage passes.

11.8 CLEAN UP

All utility access areas, gutters and intersections, shall have the slurry seal removed as specified by the B.A.R. The contractor shall remove any debris associated with the performance of the work on a daily basis.

12. QUALITY CONTROL

12.1 INSPECTION

Inspectors assigned to projects must be familiar with the materials, equipment and application of slurry seal. Local conditions and specific project requirements should be considered when determining the parameters of field inspection. Proper mix consistency should be one of the major areas of inspector concern. If mixes are too dry, streaking, lumping and roughness will be present in the mat surface. Mixes applied too wet will flow excessively and not hold straight lane lines. Excessive liquids may also cause an asphalt-rich surface with segregation.
12.2 MATERIALS

To account for aggregate bulking, it is the responsibility of the contractor to check stockpile moisture content and to set the machine accordingly. At the B.A.R.’s discretion, material tests may be run on representative samples of the aggregate and emulsion. Tests will be run at the expense of the buyer. The buyer must notify the contractor immediately if any test fails to meet the specifications.

12.3 SLURRY SEAL

If required, representative samples of the slurry seal may be taken directly from the slurry unit(s). Consistency (ISSA TB No. 106) and residual asphalt content (ASTM D2172) tests may be run on the samples. Please note that the consistency test may not be applicable to certain Quick-Set and Quick-Traffic systems because of erratic results due to setting characteristics. If this test is run, it must be performed immediately after the sample is taken. Tests will be run at the expense of the buyer. The buyer must notify the contractor immediately if any test fails to meet specifications.

Data obtained from the proportioning devices on the slurry seal unit may be used to determine individual material quantities and application rate.

12.4 NON-COMPLIANCE

If any two successive tests fail on the stockpile aggregate, the job shall be stopped. 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 expense, to prove to the B.A.R. that the problems have been corrected.

13. PAYMENT

The slurry seal shall be measured and paid for by the unit area or weight of aggregate and the weight of emulsion used on the work completed and accepted by the buyer. If paid by the weight of the aggregate and emulsified asphalt, the contractor shall submit to the B.A.R. certified delivery tickets which show quantities of each material delivered to the job site and used on the project. Payment shall be full compensation for all preparation, mixing and application of materials, and for all labor, equipment, tools, testing, cleaning, and incidentals necessary to complete the job as specified herein.
## AGENCIES

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

## TEST METHODS

### EMULSIFIED ASPHALT

<table>
<thead>
<tr>
<th>AASHTO TEST NO.</th>
<th>ASTM TEST NO.</th>
<th>TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 140</td>
<td>D 977</td>
<td>Standard Specification for Emulsified Asphalt</td>
</tr>
<tr>
<td>M 208</td>
<td>D 2397</td>
<td>Specification for Cationic Emulsified Asphalt</td>
</tr>
<tr>
<td>T 40</td>
<td>D 140</td>
<td>Sampling Bituminous Materials</td>
</tr>
<tr>
<td>T 59</td>
<td>D 244</td>
<td>Test Methods and Practices for Emulsified Asphalts</td>
</tr>
<tr>
<td>T 59</td>
<td>D 6997</td>
<td>Distillation of Emulsified Asphalt</td>
</tr>
</tbody>
</table>

### AGGREGATE AND MINERAL FILLER

<table>
<thead>
<tr>
<th>AASHTO TEST NO.</th>
<th>ASTM TEST NO.</th>
<th>TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>T 176</td>
<td>D 2419</td>
<td>Sand Equivalent Value of Soils and Fine Aggregate</td>
</tr>
<tr>
<td>T 104</td>
<td>C 88</td>
<td>Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate</td>
</tr>
</tbody>
</table>
| 96              | C 131         | Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine  
                    (This test should be performed on the parent rock that is used for crushing the finer gradation Micro Surfacing material.) |
| T 27            | C 136         | Sieve Analysis of Fine and Coarse Aggregates |
| T 11            | C 117         | Test Method for Materials Finer than 75µm (No. 200) Sieve in Mineral Aggregates by Washing |
| T 2             | D 75          | Sampling Aggregates |
| M 17            | D 242         | Mineral Filler for Bituminous Paving Mixtures |
| T 19            | C 29          | Bulk Density (“Unit Weight”) and Voids in Aggregate |
### APPENDIX A

#### TEST METHODS (CONTINUED)

### SLURRY SEAL SYSTEM

<table>
<thead>
<tr>
<th>ISSA TEST NO.</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB 100</td>
<td>Test Method for Wet Track Abrasion of Slurry Surfaces</td>
</tr>
<tr>
<td>TB 101</td>
<td>Guide for Sampling Slurry Mix for Extraction Test</td>
</tr>
<tr>
<td>TB 106</td>
<td>Measurement of Slurry Seal Consistency</td>
</tr>
<tr>
<td>TB 109</td>
<td>Test Method for Measurement of Excess Asphalt in Bituminous Mixtures by Use of a Loaded-Wheel Tester</td>
</tr>
<tr>
<td>TB 111</td>
<td>Outline Guide Design Procedure for Slurry Seal</td>
</tr>
<tr>
<td>TB 112</td>
<td>Method of Estimate Slurry Seal Spread Rates and To Measure Pavement Macrotexture</td>
</tr>
<tr>
<td>TB 113</td>
<td>Trial Mix Procedure for Slurry Seal Design</td>
</tr>
<tr>
<td>TB 114</td>
<td>Wet Stripping Test for Cured Slurry Seal Mixes</td>
</tr>
<tr>
<td>TB 115</td>
<td>Determination of Slurry Seal Compatibility</td>
</tr>
<tr>
<td>TB 139</td>
<td>Method of Classified Emulsified Asphalt, Aggregate Mixtures by Modified Cohesion Test Measurement of Set and Cure Characteristics</td>
</tr>
<tr>
<td>A105</td>
<td>Design, Testing, and Construction of Slurry Seal</td>
</tr>
</tbody>
</table>

**NOTES:**


ASTM D 2172, Standard Test Methods for Quantitative Extraction of Bitumen From Bituminous Paving Mixtures, is referenced in Section 12.3.
HOTLINE® FAST DRY LATEX TRAFFIC MARKING PAINT

TM2152 WHITE
TM2153 LEAD FREE YELLOW

PRODUCT DESCRIPTION

HOTLINE LATEX TRAFFIC PAINTS are very fast drying paints for use in marking parking lots, airports, and roads. TM2152 and TM2153 may be applied ambient airless or conventional, or may be heated for even faster dry. TM2152 and TM2153 conform to current VOC regulations and to the requirements of Federal Specification TT-P-1952E Types I and II, and dry to no pickup in less than ten minutes when properly applied at ambient conditions, or one to two minutes when heated to 140°F (60°C) to 150°F (66°C). High relative humidity has significantly less effect on the dry time of these products as compared to other latex traffic paints.

- Meets TT-P-1952D types I and II

PRODUCT CHARACTERISTICS

Finish: Flat
Color: White, Yellow
Volume Solids: 60% minimum
Weight Solids: 75% minimum
VOC (EPA Method 24): <100 g/L; 0.85 lb/gal

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td>375</td>
<td></td>
</tr>
<tr>
<td>9.0</td>
<td>225</td>
<td></td>
</tr>
</tbody>
</table>

- Coverage sq ft/gal (m²/L): 110 2.7
- Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft: 960 23.5

Drying Schedule @ 15.0 mils wet (375 microns):

- @ 77°F/25°C 50% RH
- To touch: 10 minutes
- No traffic pickup after: 10 minutes

Drying time is temperature, humidity, and film thickness dependent.

PRODUCT INFORMATION

RECOMMENDED USES

For marking airfields, highways, or parking lots when faster dry times are needed and water based or low VOC coatings are required. These products are less affected by relative humidity than most latex paints, and are ideal for striping when very fast dry times are required.

- Striping contractors
- Shopping centers
- Plant maintenance
- Streets and highways
- Municipalities
- Parking lots
- State DOTs

PERFORMANCE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Method</th>
<th>TT-P-1952E Requirements</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistance</td>
<td>ASTM D968</td>
<td>150 liters</td>
<td>150 liters</td>
</tr>
<tr>
<td>(falling sand)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bead Adhesion</td>
<td>ASTM D968</td>
<td>N/A</td>
<td>150 liters</td>
</tr>
<tr>
<td>Bleed Resistance</td>
<td>ASTM D969</td>
<td>N/A</td>
<td>8 minimum</td>
</tr>
<tr>
<td>Bleed Ratio</td>
<td>ASTM D969</td>
<td>0.95 min</td>
<td>0.96 min</td>
</tr>
<tr>
<td>Color (yellow)</td>
<td>Fed Std. 595</td>
<td>6 CIELAB</td>
<td>Pass</td>
</tr>
<tr>
<td>#33538</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry-No-Pickup</td>
<td>ASTM D711</td>
<td>10 minutes max.</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Dry Opacity (Contrast ratio)</td>
<td>Fed. Met. 141C at 5 mils wet</td>
<td>0.92 minimum</td>
<td>0.92 minimum</td>
</tr>
<tr>
<td>Dry Through (early washout)</td>
<td>ASTM D1640</td>
<td>2 hrs @ 90% RH</td>
<td>2 hrs @ 90% RH</td>
</tr>
<tr>
<td>Flash Point</td>
<td>ASTM D3278</td>
<td>N/A</td>
<td>150°F (66°C)</td>
</tr>
<tr>
<td>Finessness of Grind</td>
<td>ASTM D1210</td>
<td>3 Hegman min.</td>
<td>3 Hegman min.</td>
</tr>
<tr>
<td>Flexibility</td>
<td>ASTM D522</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Freeze-Thaw Resistance</td>
<td>ASTM D2243</td>
<td>3 cycles</td>
<td>5 cycles</td>
</tr>
<tr>
<td>Heat Shear Stability</td>
<td>ASTM D1849</td>
<td>68-105 KU</td>
<td>68-105 KU</td>
</tr>
<tr>
<td>Reflectance (white only)</td>
<td>ASTM-E97</td>
<td>85% minimum</td>
<td>85% minimum</td>
</tr>
<tr>
<td>Scrub Resistance</td>
<td>ASTM D2486</td>
<td>500 cycles min.</td>
<td>500 cycles min.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>ASTM D562</td>
<td>80-90 KU</td>
<td>80-90 KU</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>ASTM D3960</td>
<td>150 g per liter</td>
<td>87 g/l; 0.73 lbs/ gal</td>
</tr>
</tbody>
</table>

COMPOSITION INFORMATION

- Total Weight: 60% minimum by volume
- Pigment Weight Percent: 75% minimum by weight
- Non-Volatile Vehicle: 40% minimum
- Vehicle Type: Acrylic Latex Polymer

As per the requirements of TT-P-1952E, paragraph 3.1.2, these products do not contain mercury, lead, hexavalent chromium, toluene, chlorinated solvents, hydrolyzable chlorine derivatives, ethylene based glycol ethers or their acetates.
**PRODUCT INFORMATION**

---

**Recommended Systems**

Cured Asphalt, Concrete, Brick, and other Surfaced Highways:

1 ct. Hotline Fast Dry Latex Marking Paint
@ 15 mils (375 microns) wet, 9.0 mils (225 microns) dft, approximately 320 lineal feet of standard 4” stripe per gallon

The systems listed above are representative of the product's use, other systems may be appropriate.

---

**Surface Preparation**

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:
Concrete: Cured, clean, dry, sound
Asphalt: Cured, clean, dry, sound
Brick: Cured, clean, dry, sound

<table>
<thead>
<tr>
<th>Surface Preparation Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition of Surface</td>
</tr>
<tr>
<td>White Metal</td>
</tr>
<tr>
<td>Near White Metal</td>
</tr>
<tr>
<td>Commercial Blast</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
</tr>
<tr>
<td>Pitted &amp; Rusted</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
</tr>
<tr>
<td>Pitted &amp; Rusted</td>
</tr>
</tbody>
</table>

---

**Tinting**

Do not tint.

---

**Application Conditions**

Temperature: 50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material)
Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

---

**Ordering Information**

Packaging: 5 gallon (18.9L) containers

Weight per gallon:
- White: 14.10 ± 0.2 lbs/gal ; 1.68 Kg/L
- Yellow: 13.72 ± 0.2 lbs/gal ; 1.64 Kg/L

---

**Safety Precautions**

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

---

**Warranty**

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

---

DISCLAIMER

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---

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Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Surfaces should be clean, dry, and free from loose or peeling paint. Do not apply when air or surface temperatures are below 50°F (10°C), or when the relative humidity exceeds 85%, or when the temperature falls below the dew point.

The presence of concrete sealers or efflorescence on new concrete may interfere with adhesion and should be removed by extended weathering, etching, or abrasive blasting.

Most previously painted lines may be repainted without additional surface preparation, provided the old paint is still tightly adhered to the surface. However, multiple layers of paint will eventually peel and require removal.

New asphalt surfaces should ideally be allowed to age several months before striping. Latex paint will not bleed on most asphalt surfaces; however, shrinkage of the paint film during curing can cause new asphalt to lift or crack. Exceeding the recommended film thickness will increase the tendency to cause asphalt lifting. Placing an inconspicuous test stripe to determine if a new asphalt surface has cured sufficiently to paint is recommended.

If it is necessary to paint new asphalt surfaces, do not exceed an application rate of 8 mils (200 microns) wet (approximately 200 sq ft/gal / 4.9 m²/L). Special care should be given to laps and edges of stencils to prevent excessive film thickness.

### Surface Preparation Standards

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>Swedish Std.</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>1</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>SP 7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rusted</td>
<td>C St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>D St 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>C St 3</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Application Bulletin

**Application Conditions**

- **Temperature**: 50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material) At least 5°F (2.8°C) above dew point
- **Relative humidity**: 85% maximum

### Application Equipment

**Airless Spray Line Striping Equipment**

- Pressure: 1800 - 2700 psi
- Hose: 1/4" - 3/8" ID
- Tip: 0.015" - 0.019"
- Filter: 60 mesh
- Reduction: As needed up to 12½% by volume

**Conventional Spray Line Striping Equipment**

- Gun: Binks 21 (Bleeder)
- Fluid Nozzle: #68
- Air Nozzle: Internal mix, #709
- Atomization Pressure: 20 - 80 psi
- Fluid Pressure: 30 - 60 psi
- Reduction: As needed up to 12½% by volume

**Brush**: Not recommended

**Roller**: Not recommended

**NOTE**: Fluid and atomization pressures are dependent on environmental conditions. Use the lowest pressures necessary to achieve a "flat line".

If the striping machine is also used for solvent based paints, care must be taken to prevent contamination of the paint types.

Heated air atomized spray may also be used to enhance the sprayability and to further decrease the dry time. If heat is used, the system must be designed to prevent paint temperatures from exceeding 160°F (71°C) at any time.

**Important**: All metallic wetted parts must be stainless steel. Contact with brass, cold steel, and especially galvanized steel may cause gelation of the paint.

If specific application equipment is not listed above, equivalent equipment may be substituted.

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continued on back
Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly to a uniform consistency with low speed power agitation prior to use.

Apply paint at the recommended film thickness and spreading rate as indicated below:

**Recommended Spreading Rate per coat:**
Approximately 320 lineal feet of standard 4” stripe per gallon

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td>375</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dry mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.0</td>
<td>225</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Coverage sq ft/gal (m²/L)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>2.7</td>
<td></td>
</tr>
</tbody>
</table>

Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft

960 23.5

NOTE: Brush or roll application not recommended.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

Drying Schedule @ 15.0 mils wet (375 microns):

@ 77°F/25°C 50% RH
To touch: 10 minutes
No traffic pickup after: 10 minutes

Drying time is temperature, humidity, and film thickness dependent.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

**Clean Up Instructions**

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with mineral spirits to prevent rusting of the equipment. Follow manufacturers’ safety recommendations when using mineral spirits.

**Disclaimer**

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**Performance Tips**

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with water.

Asphalt surfaces generally require aging prior to painting.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

Check adhesion by applying a test strip to determine the readiness for painting.

The coating may be made into reflective paint by dropping on glass beads while the paint is still wet.

Painted surfaces can become slippery when wet. Traffic paints are not intended for use as floor paints, and should not be used to paint large areas subject to pedestrian traffic. For instance, painting an entire traffic stall is not recommended.

Heated air atomized spray may also be used to enhance the sprayability and to further decrease the dry time. If heat is used, the system must be designed to prevent paint temperatures from exceeding 160°F at any time.

Do not paint on wet surfaces.

Do not paint when the relative humidity is above 85%.

Do not paint when the temperature is below 50°F (10°C).

Cool, damp conditions will prolong the drying time.

Refer to Product Information sheet for additional performance characteristics and properties.

**Safety Precautions**

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

**Warranty**

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### PRODUCT INFORMATION

#### PRODUCT DESCRIPTION

**SETFAST LATEX TRAFFIC PAINTS** are conventional dry (non-heated application) water based paints intended for use in marking parking lots, airports, and roads.

- Fast drying
- High visibility
- Abrasion resistant
- Low VOC
- Water cleanup
- Ready to use
- Glass beads can be added for making reflective markings

#### PRODUCT CHARACTERISTICS

<table>
<thead>
<tr>
<th>Finish</th>
<th>Flat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Red, Blue, Black</td>
</tr>
<tr>
<td>Volume Solids</td>
<td>52% minimum</td>
</tr>
<tr>
<td>Weight Solids</td>
<td>68% minimum</td>
</tr>
<tr>
<td>VOC (EPA Method 24):</td>
<td>&lt;100 g/L; 0.83 lb/gal</td>
</tr>
</tbody>
</table>

**Recommended Spreading Rate per coat:**
Approximately 320 lineal feet of standard 4” stripe per gallon

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>15.0</th>
<th>375</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry mils (microns)</td>
<td>8.3</td>
<td>208</td>
</tr>
<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>110</td>
<td>2.7</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>832</td>
<td>20.4</td>
</tr>
</tbody>
</table>

**NOTE:** Brush or roll application for small areas only.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

**Drying Schedule @ 15.0 mils wet (375 microns):**

- @ 77°F/25°C
  - 50% RH
  - To touch: 45 minutes
  - No traffic pickup after: 45 minutes
  - Drying time is temperature, humidity, and film thickness dependent.

**Shell Life:** 12 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C)

**Flash Point:** 145°F (63°C), PMCC

**Reducer/Clean Up:** Water

#### RECOMMENDED USES

For marking airfields, highways, or parking lots, when colors other than standard white and yellow are needed, and water based or low VOC coatings are required.

- **Red:** No parking zones, fire lanes, curbs
- **Blue:** Handicap parking spaces
- **Black:** Painting out existing markings, contrast to concrete

- Air fields
- State DOTs
- Shopping centers
- Plant maintenance
- Streets and highways

#### PERFORMANCE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistance</td>
<td>Taber/ASTM D4060</td>
<td>220 min wear index</td>
</tr>
<tr>
<td>Bleeding Ratio</td>
<td>ASTM D969</td>
<td>0.95 minimum</td>
</tr>
<tr>
<td>Color</td>
<td>Fed. Std. 595b ASTM D2244 &lt;6.0 CIELAB</td>
<td>Red #31136, Blue #35180, Black #37038</td>
</tr>
<tr>
<td>Dry No Pickup</td>
<td>ASTM D711</td>
<td>45 minutes maximum</td>
</tr>
<tr>
<td>Dry Opacity (Contrast Ratio)</td>
<td>Fed. Mtd. 141C</td>
<td>0.95 @ 5.0 mils</td>
</tr>
<tr>
<td>Fineness of Grind</td>
<td>ASTM D1210</td>
<td>3 Hegman minimum</td>
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<tr>
<td>Flexibility</td>
<td>ASTM D522</td>
<td>Pass</td>
</tr>
<tr>
<td>Freeze-Thaw Stability</td>
<td>ASTM D2243</td>
<td>5 cycles minimum</td>
</tr>
<tr>
<td>Scrub Resistance</td>
<td>ASTM D2486</td>
<td>400 cycles minimum</td>
</tr>
<tr>
<td>Viscosity</td>
<td>ASTM D562</td>
<td>80 to 90 KU</td>
</tr>
</tbody>
</table>

#### COMPOSITION INFORMATION

| Total Solids: | 52% minimum by volume |
| Pigment Weight Percent: | 48% minimum |
| Non-Volatile Vehicle: | 38% minimum |

 Contains no lead or chromium

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## Setfast® Latex Traffic Marking Paints

### Product Information

**Recommended Systems**

Cured Asphalt, Concrete, Brick, and other Surfaced Highways:

1 ct. Setfast Latex Traffic Marking Paint @ 15 mils (375 microns) wet, 8.3 mils (208 microns) dft, approximately 320 lineal feet of standard 4" stripe per gallon

The systems listed above are representative of the product’s use, other systems may be appropriate.

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>Swedish Std.</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>1</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>SP 6</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>SP 7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Pitted &amp; Rusted</td>
<td>C St 2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>D St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Rusted</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
</tbody>
</table>

**Surface Preparation**

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Concrete: Cured, clean, dry, sound  
Asphalt: Cured, clean, dry, sound  
Brick: Cured, clean, dry, sound

**Tinting**

Do not tint.

**Application Conditions**

Temperature: 50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material)  
Relative humidity: 85% maximum  
At least 5°F (2.8°C) above dew point

Refer to product Application Bulletin for detailed application information.

**Ordering Information**

Packaging: 5 gallon (18.9L) containers  
Weight:  
Red: 12.34 ± 0.2 lbs/gal ; 1.485 Kg/L  
Blue: 12.51 ± 0.2 lbs/gal ; 1.50 Kg/L  
Black: 12.38 ± 0.2 lbs/gal ; 1.49 Kg/L

**Safety Precautions**

Refer to the MSDS sheet before use.

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**Application Bulletin**

**Surface Preparations**

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Surfaces should be clean, dry and free from loose or peeling paint. Do not apply when air or surface temperatures are below 50°F (10°C), or when the relative humidity exceeds 85%, or when the temperature falls below the dew point.

The presence of concrete sealers or efflorescence on new concrete may interfere with adhesion and should be removed by extended weathering, etching, or abrasive blasting.

Most previously painted lines may be repainted without additional surface preparation, provided the old paint is still tightly adhered to the surface. However, multiple layers of paint will eventually peel and require removal.

New asphalt surfaces should ideally be allowed to age several months before striping. Latex paint will not bleed on most asphalt surfaces; however, shrinkage of the paint film during curing can cause new asphalt to lift or crack. Exceeding the recommended film thickness will increase the tendency to cause asphalt lifting.

If it is necessary to paint new asphalt surfaces, do not exceed an application rate of 8 mils (200 microns) wet (approximately 200 sq ft/gal / 4.9 m²/L). Special care should be given to laps and edges of stencils to prevent excessive film thickness.

<table>
<thead>
<tr>
<th>Surface Preparations Standards</th>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS5709:A1</th>
<th>Swedish Std.</th>
<th>SIS055900</th>
<th>SSPC</th>
<th>NACE</th>
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<tr>
<td>White Metal</td>
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<td>Sa 3</td>
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<td>Sa 3</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>Sa 3</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>Sa 2</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>Sa 1</td>
</tr>
<tr>
<td>Hand Tool Cleaning Rusted</td>
<td>Rusted</td>
<td>C St 2</td>
<td>C St 2</td>
<td>C St 2</td>
<td>C St 2</td>
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<td>C St 2</td>
</tr>
<tr>
<td>Hand Tool Cleaning Pitted &amp; Rusted</td>
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<td>D St 3</td>
<td>D St 3</td>
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<td>D St 3</td>
<td>D St 3</td>
<td>D St 3</td>
</tr>
<tr>
<td>Power Tool Cleaning Rusted</td>
<td>Rusted</td>
<td>C St 3</td>
<td>C St 3</td>
<td>C St 3</td>
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<td>D St 3</td>
<td>D St 3</td>
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<td>D St 3</td>
</tr>
</tbody>
</table>

**Application Conditions**

Temperature: 50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material)
At least 5°F (2.8°C) above dew point
Relative humidity: 85% maximum

**Application Equipment**

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

These products are formulated for airless spray or conventional air atomized spray without thinning at ambient temperatures above 50°F.

**Reducer/Clean Up**

- **Water**

**Airless Spray Line Striping Equipment**

- **Pressure**
  - 1800-2700 psi
- **Hose**
  - 1/4" - 3/8" ID
- **Tip**
  - 015" - 019"
- **Filter**
  - 60 mesh
- **Reduction**
  - As needed up to 12½% by volume

**Conventional Spray Line Striping Equipment**

- **Gun**
  - Binks 21 (Bleeder)
- **Fluid Nozzle**
  - #68
- **Air Nozzle**
  - Internal mix, #709
- **Atomization Pressure**
  - 20-80 psi
- **Fluid Pressure**
  - 30-60 psi
- **Reduction**
  - As needed up to 12½% by volume

**Brush, small areas only**

- **Brush**
  - Nylon/polyester
- **Reduction**
  - As needed up to 12½% by volume

**Roller, small areas only**

- **Cover**
  - 3/8" woven with solvent resistant core
- **Reduction**
  - As needed up to 12½% by volume

**NOTE:** Fluid and atomization pressures are dependent on environmental conditions. Use the lowest pressures necessary to achieve a "flat line".

If the striping machine is also used for solvent based paint, care must be taken to avoid solvent contamination.

If specific application equipment is not listed above, equivalent equipment may be substituted.

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continued on back
Traffic
&
Zone
Products

APPLICATION BULLETIN

10.02

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly to a uniform consistency with low speed power agitation prior to use.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:
Approximately 320 lineal feet of standard 4” stripe per gallon

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>15.0</td>
<td>375</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>8.3</td>
<td>208</td>
</tr>
</tbody>
</table>

~Coverage sq ft/gal (m²/L)

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>832</td>
<td>20.4</td>
</tr>
</tbody>
</table>

NOTE: Brush or roll application for small areas only.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

Drying Schedule @ 15.0 mls wet (375 microns):

<table>
<thead>
<tr>
<th></th>
<th>@ 77°F/25°C</th>
<th>50% RH</th>
</tr>
</thead>
<tbody>
<tr>
<td>To touch:</td>
<td>45 minutes</td>
<td></td>
</tr>
<tr>
<td>No traffic pickup after</td>
<td>45 minutes</td>
<td></td>
</tr>
</tbody>
</table>

Drying time is temperature, humidity, and film thickness dependent.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with mineral spirits to prevent rusting of the equipment. Follow manufacturer’s safety recommendations when using mineral spirits.

PERFORMANCE TIPS

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with water.

Asphalt surfaces generally require aging prior to painting.

If the asphalt is insufficiently cured, applying a thin coat (approximately 1/2 the recommended dft) generally reduces the extent of lifting and cracking.

Check adhesion by applying a test strip to determine the readiness for painting.

The coating may be made into reflective paint by dropping on glass beads while the paint is still wet.

Painted surfaces can become slippery when wet. Traffic paints are not intended for use as floor paints, and should not be used to paint large areas subject to pedestrian traffic.

Do not paint on wet surfaces.

Do not paint when the relative humidity is above 85%.

Do not paint when the temperature is below 50°F (10°C).

Cool, damp conditions will prolong the drying time.

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANDIBILITY AND FITNESS FOR A PARTICULAR PURPOSE.
# Certificate of Compliance

**Manufacturer:** Asphalt Coatings Engineering  
**Date:** January 1, 2019

**Address:** 851 H Street, Wasco, CA 93280  
**Phone:** 661 758-3051

**Specification:** A.S.M.A. STANDARD SPEC.-CALTRANS SSP 37-040, Green Book 2012 203-9.2

**Certificate Prepared For:** ACE SEAL

## Data and Requirements:

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Ace Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphaltic Emulsion SS1H or CSS1H</td>
<td></td>
<td></td>
<td>SS1H</td>
</tr>
<tr>
<td>Weight (per gallon) ASTM D244</td>
<td>9.0 lbs</td>
<td>9.8-10.2 lbs.</td>
<td></td>
</tr>
<tr>
<td>Cone Penetration ASTM D217-CA Test 413</td>
<td>340mm</td>
<td>700mm</td>
<td>350mm</td>
</tr>
<tr>
<td>% Non-Volatile ASMA A-1</td>
<td>50</td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>% Non-Volatile Soluble in Tri-Clorethylene ASTM D2042</td>
<td>10</td>
<td>35</td>
<td>34.7</td>
</tr>
<tr>
<td>Wet Track Abrasion ASTM D3910</td>
<td></td>
<td>35 gram/ft^2 loss</td>
<td>2.4 g</td>
</tr>
<tr>
<td>Mineral Aggregate Components ASTM C136</td>
<td>#20 Sieve 100% Pass</td>
<td></td>
<td>Passes</td>
</tr>
<tr>
<td>Dried Film Color</td>
<td>Black</td>
<td></td>
<td>Passes</td>
</tr>
<tr>
<td>Viscosity ASTM D562</td>
<td>75 KREB</td>
<td></td>
<td>95</td>
</tr>
<tr>
<td>Accelerated Weathering Fed Spec TT-C-555B</td>
<td>No Deterioration</td>
<td></td>
<td>Passes</td>
</tr>
<tr>
<td><strong>Additives</strong>*:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color Pigment for Color Improvement</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Polyamine for Added Water Resistance/Wear</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

* Not required by ASMA or Cal Trans Specifications

**CONCLUSION:**
The product being considered here has been designed to provide maintenance for asphalt surfaces in accordance with the specification indicated above.

We Certify that the material identified above meets or exceeds the specification indicated.

[Signature]

Manufacturing Department
DESCRIPTION:
Ace Seal is an asphalt product combining selected fillers and suitable additives with emulsified asphalt. Ace Seal contains no coal tar and is therefore, acceptable on school playgrounds and tennis courts as well as any off highway asphalt surface.

Ace Seal protects any asphalt surface by sealing the asphalt against the harmful effects of sun, water and frost. Ace Seal slows oxidation of the asphaltic binder and reduces the loss of aggregates from the surface of the asphalt and, therefore, reduces maintenance costs and adds years of life to pavement.

SURFACE PREPARATION:
The surface to be sealed should be properly repaired before being sealed. Any places where the asphalt does not have good structural integrity should be saw-cut out and replaced before it is sealed. Sealer is not designed to increase the structural characteristics of the asphalt. New asphalt surfaces should be allowed to cure a minimum of seven days before application, three to six months is recommended. Surface must be clean and free from all loose material, so that the sealer can adhere to the asphalt surface.

MIXING:
Normally 20 to 30 percent water is needed in the first coat and 20 to 25 percent in the second coat. A good mixer is required to mix the sealer thoroughly after water is added to insure a consistent concentration before applying. The amount of water needed will vary depending on the temperature of the pavement and the temperature and humidity of the air. There should be enough water added so that the sealer will flow into the pavement and give good adhesion. Dilute the concentrated Ace Seal with water as required to achieve ease of application. Ace Seal already contains 3 pounds per gallon of ground silica aggregate to achieve a non-skid surface. Up to three pounds of additional aggregate per gallon of undiluted sealer can be added; (Refer to Technical Bulletin #1243 for mixing instructions).

Suggested Mix Design When Adding Additional Aggregate:

<table>
<thead>
<tr>
<th></th>
<th>Sealer</th>
<th>Water</th>
<th>Aggregate*</th>
<th>Polymer Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Coat</td>
<td>100 Gallons</td>
<td>20 - 30 Gallons</td>
<td>100 - 300 LB</td>
<td>1 - 3 Gallons</td>
</tr>
<tr>
<td>2nd Coat</td>
<td>100 Gallons</td>
<td>20 - 25 Gallons</td>
<td>NONE</td>
<td>NONE</td>
</tr>
</tbody>
</table>

* #30 Manufactured Silica Sand Recommended
APPLICATION:
Two coats applied evenly over the entire surface are recommended. Apply by squeegee, brush, or mechanical spray. Apply second coat in cross direction of the first coat if this is practical. Allow two to four hours drying time between the first and second coats making sure the first coat is dry to the touch or will support equipment without tracking before the second coat is applied. It is recommended that coated surface be allowed to dry 24 hours before opening traffic. Painting and striping can be applied as soon as the sealer is dry.

For ease of application in hot weather, air temperatures exceeding 95 degrees Fahrenheit, the surface should be fogged with water immediately prior to sealer application. Ambient temperatures should be at least 60 degrees and rising and below 110 degrees for Ace Seal application. Ace Seal should not be applied in temperatures below 60 degrees, or when ambient temperatures are forecast to be 40 degrees Fahrenheit or lower during the next 48 hours. Ace Seal should not be applied when rain is imminent or forecast within the next 48 hours. Ace Seal that is applied in temperatures below 70 degrees will take longer to cure and will be more sensitive to water until cured.

COVERAGE:
Depending on the porosity and roughness of the surface and the method of application, coverage for a two coat application will vary between 25 and 45 square feet per gallon.

GENERAL:
Sealed surfaces can be painted as soon as sealer is dry enough to allow traffic without tracking. Concentrated Ace Seal must be kept from freezing. Wash tools in water after use. Use mineral spirits to clean tools if material has dried. Containers should be kept tightly closed when not in use.

WARRANTY:
The statements made on this technical bulletin are believed to be true and correct and are intended to provide a guide for approved construction practices. Asphalt Coating Engineering does not make, nor does it authorize any agent or representative to make warranty, express or implied, concerning this material, as workmanship, weather, construction equipment utilized and other variables affecting the results are all beyond our control. ACE warrants only that the material conforms to product specifications and any liability to the buyer or user of this product is limited to the replacement value of the product only. In no event will ACE be liable for any injury, loss or damage, direct, or incidental, special or consequential, however arising, in connection with material or equipment furnished or work performed. ACE will not, in any manner, be liable for any defects, variations or change in conditions of the substructure over which its products are installed.

Asphalt Coatings Engineering
851 H Street
Wasco, CA 93280
661 758-3051
800 542-3900
Section 1: Identification of the substance/mixture and of the company/undertaking

Product form: Liquid

Substance name: Ace Seal

Synonyms: Anionic Asphalt Emulsion, Sealcoat, Slurry Seal

Manufacturer
Asphalt Coatings Engineering
851 H St
Wasco, CA 93280
(661) 758-3051

Emergency telephone number
(661) 345-7287

Section 2: Hazards identification

Classification of the substance or mixture:
- Eye Irritant
- Skin Corrosion/Irritation
- Respiratory/Skin Sensitizer

Category:
- Category 2A
- Category 2
- Category 1

Signal Word: WARNING

Hazard Statements
- May cause skin and eye irritation.
- Fumes from heated material may be irritating.
- Aspiration hazard if swallowed.
- Substance may be harmful if swallowed irritating mouth, throat and/or stomach.
- Prolonged or excessive inhalation may cause respiratory tract irritation.
- Vapors may have a strong offensive odor which may cause headaches, nausea and vomiting.
- Symptoms of overexposure include: fatigue, tearing of eyes, burning sensation in the throat, cough, chest discomfort and skin irritation.

Precautionary Statements
- Obtain and read instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Exposure to hot material may cause thermal burns.
Section 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Amount</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>&lt;30%</td>
<td>8052-42-4</td>
</tr>
<tr>
<td>Water</td>
<td>&lt;45%</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Aggregate Blend</td>
<td>&gt;20%</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>2.0%</td>
<td>1333-86-4</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>&lt;0.05%</td>
<td>7783-06-4</td>
</tr>
<tr>
<td>Cellulose Fiber</td>
<td>&lt;2.0%</td>
<td>Mixture</td>
</tr>
</tbody>
</table>

Section 4: First aid measures

First-aid measures general: Get prompt medical attention. Dilute with water. If solidified, treat as neat asphalt.

First-aid measures after inhalation: At elevated temperatures, may cause irritation of the respiratory tract. Although this product is not known to cause respiratory problems, if breathing is difficult, safely remove victim to fresh air and provide oxygen. Get immediate medical attention.

First-aid measures after skin contact: Wash skin with soap and water. Wear protective gloves to minimize skin contamination. For hot material exposure, DO NOT attempt to remove solidified material from the skin. DO NOT attempt to dissolve with solvents or thinners.

First-aid measures after eye contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists. Burns due to contact with heated material require immediate medical attention.

First-aid measures after ingestion: Get immediate medical attention. Do not induce vomiting due to danger of aspirating liquid into lungs. Gastric lavage may be required.

Most important symptoms and effects, both acute and delayed

Eyes: Irritation
Skin: Irritation
Inhalation: Irritation
Chronic Effects: No known hazards in normal industrial use.
Section 5: Firefighting measures

Extinguishing media

Suitable extinguishing media: Use alcohol foam, carbon dioxide or water spray when fighting fires involving this material.

Unsuitable extinguishing media: Exercise care when using water as contact with hot asphalt products - may produce steam and violent foaming.

Special hazards arising from the substance or mixture

Fire hazard: Product is an aqueous solution. Heated product may produce hazardous fumes, decomposition products or residues. Small quantities of hydrogen sulfide may be released upon heating.

Explosion hazard: None

Reactivity: Avoid contact with strong bases.

Advice for firefighters

Firefighting instructions: Decomposition may produce fumes, smoke, oxides of carbon, hydrocarbons and possible small quantities of hydrogen sulfide. Avoid breathing vapors from heated material. Combustion may produce CO, NOx, Sox and reactive hydrocarbons.

Protection during firefighting: As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH approved and full protective gear.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures: Clean up spills immediately using appropriate personal protective equipment.

For non-emergency personnel

Protective equipment: Gloves, safety glasses, boots.

Emergency procedures: Absorb spills with absorbent material. Contain spilled liquid with sand or earth.

For emergency responders

Protective equipment: Gloves, safety glasses, boots. Emergency procedures: Stop the source of the leak or release. Clean up releases as soon as possible.
Environmental precautions
Prevent contamination of soil, surface water or groundwater.

Methods for containment/clean up
Absorb spills with inert material. Contain spilled liquid with sand or earth. Contain liquid to prevent contamination of soil, surface water or groundwater. Large spillage should be dammed-off and pumped into containers.

Section 7: Handling and storage

Precautions for safe handling

Shelf Life: 30 Days @ 77 degrees C (in original, sealed containers).
Additional hazards when processed: When handling hot material, use protective clothing impervious to this material.
Precautions for safe handling: Use good Hygiene measures: wash exposed areas with mild soap and water before eating, drinking or smoking and again when leaving work.
Storage conditions: Do not store at temperatures above 82 degrees C.

Section 8: Exposure controls/personal protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Eye/Face Protection Requirements: Where contact with this material is likely, eye protection is recommended.
Skin Protection Requirements: Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation and potential exposure.
Respiratory Protection Requirements: Where there is potential for airborne exposure in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

Exposure Guidelines:
Hydrogen Sulfide: NIOSH REL C 10 ppm, 15 mg/m3 (10 min.)
                           OSHA PEL     C 20 ppm, 50 ppm (10 min.)
Section 9: Physical and chemical properties

Information on basic physical and chemical properties

**Physical state:** Liquid

**Appearance:** Brown to Black

**Odor:** Asphalt Odor

**pH:** 10-11.5

**Melting point:** 0 C

**Freezing point:** 0 C

**Specific Gravity:** 1.4-1.7 (Water=1)

**Boiling point:** 100 degrees C @ 760 mm Hg

**Flash point:** None

**UEL:** N/A

**LEL:** N/A

**Vapor pressure:** Same as water mm Hg @ 21 degrees C

**Solubility:** Soluble in water

**%Volatiles:** <35% @ 21 degrees C @ 760 mm Hg

**VOC:** <1

Section 10: Stability and reactivity

**Reactivity:** Low

**Chemical stability:** This compound is stable at ambient conditions.

**Possibility of hazardous reactions:** Low

**Conditions to avoid:** Avoid extreme temperatures.

**Incompatible materials:** Avoid contact with strong bases.

**Hazardous decomposition product:** Decomposition will not occur if handled and stored properly.

**Polymerization:** Hazardous polymerization will not occur.
# Section 11: Toxicological information

<table>
<thead>
<tr>
<th><strong>Skin corrosion:</strong></th>
<th>May cause irritation and a rash with prolonged or repeated contact with skin.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Serious eye damage/irritation:</strong></td>
<td>Irritating, may injure eye tissue if not removed promptly.</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitization:</strong></td>
<td>Repeated contact may cause skin irritation, prolonged inhalation may cause respiratory tract irritation.</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Carcinogenicity:</strong></td>
<td>IARC has determined Hydrochloric acid may be carcinogenic in humans.</td>
</tr>
<tr>
<td><strong>Reproductive toxicity:</strong></td>
<td>This product contains one or more chemicals known to cause reproductive harm.</td>
</tr>
<tr>
<td><strong>Specific target organ toxicity</strong></td>
<td>Skin and/or respiratory irritation, mild.</td>
</tr>
<tr>
<td>(single exposure):</td>
<td></td>
</tr>
<tr>
<td><strong>Specific target organ toxicity</strong></td>
<td>Skin, respiratory, kidney and liver.</td>
</tr>
<tr>
<td>(repeated exposure):</td>
<td>Respiratory distress as a result of aspiration.</td>
</tr>
<tr>
<td><strong>Aspiration hazard:</strong></td>
<td>Respiratory tract irritation, cough, chest discomfort.</td>
</tr>
<tr>
<td><strong>Symptoms/injuries after inhalation:</strong></td>
<td>Eye tearing, irritation, burns if contact made with heated material.</td>
</tr>
<tr>
<td><strong>Symptoms/injuries after eye contact:</strong></td>
<td>Harmful if swallowed, irritating to mouth, throat and stomach.</td>
</tr>
<tr>
<td><strong>Symptoms/injuries after ingestion:</strong></td>
<td></td>
</tr>
</tbody>
</table>

# Section 12: Ecological information

**Environmental Hazards**
This material should be prevented from uncontrolled applications to soil or earth. This material should be prevented from entering storm water, sewage drainage systems and bodies of water.

# Section 13: Disposal considerations

**Waste Disposal:**
This product, as supplied, when discarded or disposed of, may be a hazardous waste according to Federal regulations (40 CFR 261). Under the Resource Recovery Act (RCRA), it is the responsibility of the user of the product to determine whether the material is a hazardous waste subject to RCRA. Treat or dispose of waste material in accordance with all local, state/provincial and national requirements. Avoid disposal into wastewater treatment facilities.

**Contaminated Materials:**
Treat as product waste.

**Container Disposal:**
Unclean empty containers should be disposed of in the same manner as the contents.
Section 14: Transport information

Product Label: Ace Seal Parking Lot Sealer
UN Number: Non-hazardous, no UN number
DOT Shipping Name: Non Regulated, Water Based Asphalt Emulsion
DOT Hazard Class: Non-Hazardous

Section 15: Regulatory information

EEC Symbols and Indications of Danger: Irritant (Xi)
R-Phrases: R36/37/38 – Irritating to eyes, respiratory system and skin.
WHMIS Hazard Symbols: Class D – Irritant
CERCLA Hazardous Substances: HYDROGEN SULFIDE (CAS 7783-06-4) – RQ 100 lb.
California Proposition 65: This product contains one or more chemicals known to the State of California to cause cancer and/or reproductive harm.

Clean Air Act – Section 112:
Title V: HYDROGEN SULFIDE (7783-06-4)
SC Toxic Air Pollutants List: HYDROGEN SULFIDE (7783-06-4)
Sara Title II – Section 313: There are no known ingredients subject to reporting.
TSCA Inventory Status: All ingredients of this product are listed.

Section 16: Other information

Indication of changes
NFPA health hazard: 1
NFPA fire hazard: 0
NFPA reactivity: 0 Personal
Protection Index: 1

HMIS III Rating
Health: 1
Flammability: 0
Reactivity: 0
Special Hazard: None

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Date of Issue: 09/01/2015
**General:** A rubberized asphalt emulsion with greater flexibility designed for sealing narrow pavement cracks up to 1” in width, in asphalt and concrete surfaces. It has resilient characteristics that can allow self-threading or memory. It has excellent flow properties and no pinholing. It is ready to use on roadways, parking lots, airports, athletic courts, driveways, traffic safety islands, playgrounds and walkways.

**Surface Preparation:** Surface must be dry and free from all loose material, dirt and dust. Oil contaminated cracks can be treated with Allstates’ Poly Oil Sil® (ALT - 602) to improve adhesion.

**Application:** Mix well before using. Use as is. Fill cracks completely. Can be applied with a pour pot or suitable crack sealing machine. Scrape excess from surfaces (use rubber squeegee), and allow to cure completely before sealing with a mechanical applicator. To promote adhesion to coal tar or asphalt emulsion type pavement sealer, sprinkle silica sand (lightly) before it sets up. Sprinkling silica sand is also recommended to avoid tracking when climate conditions are extremely hot.

**Coverage Per Gallon:** Indefinite. For estimation purposes – up to 80 linear feet of ½” X ½” depth cracks.

**Caution:** KEEP FROM FREEZING. Do not use when rain is in forecast, when surface is wet or when temperature is below 50°F. Wash tools in water. Use a paint thinner if material has dried. Do not store in direct sunlight or where temperatures exceed 100°F. Container should be closed when not in use. Keep out of the reach of children. Wherever low temperature flexibility is required (due to expansion and contraction) use Allstates’ Super-Flex® (ALT - 654).

**Packaging:** 1 gallon jugs, 5 gallon pails and 55 gallon drums.

---

**Material Specifications:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight per Gallon, @ 77°F, ASTM D1010, (lbs)</td>
<td>9.20 – 9.60</td>
</tr>
<tr>
<td>Nonvolatile %, ASTM D2939</td>
<td>68.00</td>
</tr>
<tr>
<td>Viscosity @ 77°F, ASTM D562 (Kreb’s Stormer Unit)</td>
<td>85 – 95</td>
</tr>
<tr>
<td>Penetration (0.1 mm), ASTM D5</td>
<td>50 - 60</td>
</tr>
<tr>
<td>Drying Time (minutes) ¼” X ¼” @ 77°F &amp; 50% RH</td>
<td>30 min.</td>
</tr>
<tr>
<td>Std. Spec. for Emulsified Asphalt</td>
<td></td>
</tr>
<tr>
<td>AASHTO Designation M140 – 70</td>
<td>meets spec.</td>
</tr>
<tr>
<td>ASTM Designation D977 – 73 &amp; D244</td>
<td>meets spec.</td>
</tr>
</tbody>
</table>

This information is to assist customers in determining if this product is suitable for the proposed application, and to satisfy themselves as to the suitability of the contents. Nothing herein shall constitute a warranty, express or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent implied. 12/8/05