

CONTRACT DOCUMENTS
FOR

BUHR PARK ICE ARENA
STEEL STRUCTURE PAINTING



Due: Tuesday, December 7, 2010

ITB - 4109

PARKS AND RECREATION

CITY OF ANN ARBOR
100 North Fifth Avenue
Ann Arbor, Michigan 48104

TABLE OF CONTENTS

<u>Section</u>	<u>Pages</u>
Table of Contents	TC-1
Advertisement	AD-1
Human Rights Division Contract Compliance Forms	CC-1 to 4
CUB Agreement Forms	AAF 1-2
Notice of Pre-Bid Conference.....	NP-1
Instructions to Bidders	IB-1 to 3
Proposal	P-1 to 3
Bid Forms	BF- 4 to 7
Contract.....	C-1 to 4
Bond Forms.....	B-1 to 2
General Conditions	GC-1 to 17
Contractor's Declaration	GC-18
Contractor's Affidavit	GC-19
Standard Specifications.....	SS-1
Detailed Specifications	1-6
Paint cut sheets and Material Safety Data Sheets	1-22
Plans	1-4
A. Cover Sheet	
B. Specifications Sheet	
C. Proposed Work and Paint Specifications	
D. Structure Elevations	

ADVERTISEMENT FOR
FOR THE
CITY OF ANN ARBOR, MICHIGAN

BID NO. 4109

Sealed Bids will be received by the Procurement Division, Fifth Floor, City Hall, on or before 2:00 p.m. Tuesday, December 7, 2010 for steel structure painting at Buhr Park Ice Arena. Bids will be publicly opened and read aloud at this time.

Work to be done includes cleaning and painting of the steel structure at Buhr Park Ice Arena. Bid specifications are entirely downloadable at Michigan Intergovernmental Trade Network/BidNet (MITN) at www.govbids.org and on the Purchasing page of the City of Ann Arbor's website at www.a2gov.org.

Each proposal shall be accompanied by a certified check, or Bid Bond by a recognized surety, in the amount of 5% of the total of the bid price. A proposal, once submitted, becomes the property of the City. In the sole discretion of the City, the City reserves the right to allow a bidder to reclaim submitted documents provided the documents are requested and retrieved no later than 48 hours prior to the scheduled bid opening.

The successful Bidder will be required to furnish satisfactory performance and labor and material bonds in the amount of 100% of the bid price and satisfactory insurance coverage.

Precondition for entering into a contract with the City of Ann Arbor is compliance with Chapter 112 of Title IX of the Code of the City of Ann Arbor. The successful Bidder may also be required to comply with Chapter 23 of Title I of the Code of the City of Ann Arbor. Further information is outlined in the contract documents.

After the time of opening, no Bid may be withdrawn for a period of 45 days. The City reserves the right to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

Any further information may be obtained from the Procurement Division, (734) 794-6500 ext.45206.

CITY OF ANN ARBOR, MICHIGAN

→ **RATE EFFECTIVE APRIL 30, 2010**←

LIVING WAGE ORDINANCE – CITY OF ANN ARBOR

\$11.71 per hour

if the employer provides health care benefits*

\$13.06 per hour

if the employer does **NOT** provide health care benefits*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time **must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.**

ENFORCEMENT

- 1.1 THE CITY OF ANN ARBOR MAY RECOVER BACK WAGES EITHER ADMINISTRATIVELY OR THROUGH COURT ACTION FOR THE EMPLOYEES THAT HAVE BEEN UNDERPAID IN VIOLATION OF THE LAW. PERSONS DENIED PAYMENT OF THE LIVING WAGE HAVE THE RIGHT TO BRING A CIVIL ACTION FOR DAMAGES IN ADDITION TO ANY ACTION TAKEN BY THE CITY.**

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

*** Health Care benefits includes those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.**

The Law Requires Employers to Display This Poster Where Employees Can Readily See It.

For Additional Information or to File a Complaint Contact:

Dee Lumpkin, Procurement Assistant
734/794-6576 or dlumpkin@a2gov.org

**CITY OF ANN ARBOR PROCUREMENT OFFICE
HUMAN RIGHTS CONTRACT COMPLIANCE FORM**
Entire Organization (Totals for All Locations where applicable)

Name of Company/Organization _____ Date Form Completed _____
 Name and Title of Person Completing this Form _____ Name of President _____
 Address _____ (Street address) _____ (City) _____ (State) _____ (Zip) _____ Phone # _____ (Area Code) _____
 Fax# _____ (Area Code) _____ Email Address _____

Job Categories	EMPLOYMENT DATA Number of Employees (Report employees in only one category)											TOTAL COLUMNS A-M				
	Male						Female									
	White A	Black or African American B	Asian C	Hispanic or Latino D	Native Hawaiian or Other Pacific Islander F	American Indian or Alaska Native G	White H	Black or African American I	Asian J	Hispanic Latino K	Native Hawaiian or Other Pacific Islander L		American Indian or Alaskan Native M			
Exec/Sr. Level Officials																
Supervisors																
Professionals																
Technicians																
Sales																
Admin. Support																
Craftspeople																
Operatives																
Service Workers																
Laborers/Helper																
Apprentices																
Other																
TOTAL																
PREVIOUS YEAR TOTAL																

Questions about this form? Call Procurement Office: (734) 794-6500 ext. 45206

CITY OF ANN ARBOR PROCUREMENT OFFICE
HUMAN RIGHTS CONTRACT COMPLIANCE FORM
Local Office (Only those employees that will do local or on-site work, if applicable)

Form #2

Name of Company/Organization _____ Date Form Completed _____

Name and Title of Person Completing this Form _____

Fax# _____ (Area Code) _____ Email Address _____

Job Categories	EMPLOYMENT DATA											TOTAL COLUMNS A-M	
	Number of Employees (Report employees in only one category)												
	Male					Female							
White	Black or African American	Asian	Hispanic or Latino	D	F	G	H	I	J	K	L	M	
Exec/Sr. Level Officials													
Supervisors													
Professionals													
Technicians													
Sales													
Admin. Support													
Craftspeople													
Operatives													
Service Workers													
Laborers/Helper													
Apprentices													
Other													
TOTAL													
PREVIOUS YEAR TOTAL													

Questions about this form? Call Procurement Office: (734) 794-6500 ext. 45206

**City of Ann Arbor LIVING WAGE ORDINANCE
DECLARATION OF COMPLIANCE**

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that employers providing services to the City or recipients of grants for financial assistance (in amounts greater than \$10,000 in a twelve-month period of time) pay their employees who are working on the City project or grant, a minimum level of compensation known as the **Living Wage**. This wage must be paid to the employees for the length of the contract/project.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from the Ordinance. If this exemption applies to your firm, please check below:

- _____ This company is exempt due to the fact that we employ or contract with fewer than 5 individuals.
- _____ This non-profit agency is exempt due to the fact that we employ or contract with fewer than 10 employees.

The Ordinance requires that all contractors/vendors and/or grantees agree to the following terms:

- a) To pay each of its employees performing work on any covered contract or grant with the City, no less than the living wage, which is defined as \$11.71/hour when health care is provided, or no less than \$13.06/hour for those employers that do *not* provide health care. It is understood that the Living Wage will be adjusted upward each year on April 30, and covered employers will be required to pay the adjusted amount thereafter. The rates stated above include the adjustment for 2010.
- b) Please check the boxes below which apply to your workforce:
- Employees who are assigned to *any covered* City project or grant will be paid at or above the applicable living wage without health benefits Yes _____ No _____
- OR**
- Employees who are assigned to *any covered* City project or grant will be paid at or above the applicable living wage with health benefits Yes _____ No _____
- c) To post a notice approved by the City regarding the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.
- d) To provide the City payroll records or other documentation as requested; and,
- e) To permit access to work sites to City representatives for the purposes of monitoring compliance, investigating complaints or non-compliance.

The undersigned authorized representative hereby obligates the contractor/vendor or grantee to the above stated conditions under penalty of perjury and violation of the Ordinance.

Company Name

Address City State Zip

Signature of Authorized Representative

Phone (area code)

Type or Print Name and Title

Email address

Date signed

Questions about this form? Please contact: Procurement Office City of Ann Arbor
Phone: 734/794-6576 Fax:734/794-6500 ext.45206

- Effective February 1, 2010-

CITY OF ANN ARBOR RESOLUTION R-09-459
CUB AGREEMENT REQUIREMENT

**NOTICE TO ALL CONTRACTORS AND SUBCONTRACTORS
PERFORMING CONSTRUCTION WORK FOR THE CITY OF ANN
ARBOR ON ANY CITY CONSTRUCTION PROJECT**

Any labor used on a City construction project bid and awarded by the City of Ann Arbor must be governed by the current collective bargaining agreement of the appropriate Local Unions of the Washtenaw County Skilled Building Trades Council (SBTC).

All invitations to bid on construction contracts include, as a condition of award, the requirement that all contractors and subcontractors execute a CUB agreement with the SBTC. Each contractor and subcontractor at all tiers of a project shall, prior to beginning work on the project, become signatory parties to the respective current collective bargaining agreements of the appropriate Local Unions of the SBTC. Alternately, when no other agreement exists, a Contractor may sign a one-time project agreement for the CUB project, covering that construction project only.

All potential bidders and contractors must contact the current CUB representative, Bart Nickerson at 734-944-5317 (office) or 734-320-2227 (cell) for a complete summary of the procedures and requirements pursuant to the CUB Memorandum of Understanding

CONTRACTORS SHALL DISPLAY THIS NOTICE WHERE EMPLOYEES CAN READILY SEE IT.

Questions Contact

D. Lumpkin, Procurement Assistant
dlumpkin@a2gov.org

MEMORANDUM OF UNDERSTANDING

1. WORK DISPUTES

In return for the promise made in paragraph (3) below, the parties agree that there will be no strike, work stoppage or lock-out for the duration of this Memorandum. Any jurisdictional dispute shall be resolved through normal procedures.

There will be a job conference with all contractors and sub-contractors prior to starting work.

2. COFFEE BREAKS

There shall be no organized coffee breaks.

3. PAYMENT OF FRINGES

Any Union having a claim against a contractor or subcontractor for unpaid wages and/or fringe benefits for work performed on the project shall give written notice of such claim to such contractor or subcontractor (with a copy of the notice to the Construction Manager or General Contractor) within three (3) business days after such claim has become known. Upon receipt of such written notice, the Construction Manager or General Contractor involved shall withhold an amount equal to the claim from the next disbursement payable to the contractor, pending resolution of the dispute satisfactory to the Construction Manager or General Contractor. In the event of any such dispute, the Union agrees to use its best efforts to pursue any legal remedies available, including litigation by Fund Trustees. It is understood that the intent to this section is to accomplish prompt and effective resolution of any disputes between the Union and any contractor or subcontractor over payment of wages and fringes.

4. UNION WORK

The parties understand and agree that each contractor and subcontractor at all tiers of this project shall, prior to beginning work on the project, become signatory parties to the respective current collective bargaining agreements of the appropriate Local Unions of the Washtenaw County Skilled Building Trades Council.

(Contractor, Owner or Construction Manager)	(Representative of Washtenaw County Skilled Building Trades Council)
(Project Description)	(Date)

THIS MEMORANDUM APPLIES ONLY TO THE PROJECT AND/OR CONSTRUCTION ABOVE DESCRIBED.

WHITE — Union Copy
GREEN — Contractor or Construction Manager Copy
CANARY - Owner Copy
PINK — CUB Copy
GOLD — Project Copy

Printed On Site

NOTICE OF PRE-BID CONFERENCE

A pre-bid meeting will be held at Buhr Park Ice Arena, 2751 Packard Road, Ann Arbor at 2:30 p.m. Monday, November 29, 2010.

Attendance at this meeting is highly recommended.

General questions concerning the project should be directed to Amy Kuras, Park Planner at akuras@a2gov.org.

INSTRUCTIONS TO BIDDERS

General

Work to be done under this Contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents. All work to be done under this Contract is located in or near the City of Ann Arbor.

The City shall make available to all prospective Bidders, prior to receipt of the Bids, access to the area in which the work is to be performed. Advance notice should be given to the Administering Service Area/Unit in cases where access to the site must be arranged by the City.

Any proposal which does not conform fully with these instructions may be rejected.

Proposals

Proposals must be submitted on the "Proposal Forms" and "Bid Forms" provided, with each blank properly filled in. **Three copies of the Proposal, Bid Forms must be provided. The CUB Agreement must be provided upon award of the bid. Please include one copy of the Human Rights Forms.** Sealed proposals will be received by the City of Ann Arbor Procurement Division, Fifth Floor, City Hall, Ann Arbor, Michigan, at the time stipulated in the Advertisement, promptly after which proposals will be publicly opened and read aloud. Each proposal must be enclosed in a sealed envelope, endorsed across one end:

BID #4109 Buhr Park Ice Arena Steel Structure Painting

The City intends to award a Contract(s) to the lowest responsible Bidder(s). On multi-divisional contracts, separate divisions may be awarded to separate Bidders. The City may also utilize discounts offered in the Bid Forms, if any, to determine the lowest responsible Bidder on each division, and award multiple divisions to a single Bidder, so that the lowest total cost is achieved for the City. For unit price bids, the contract will be awarded based upon the lump sum and unit prices stated by the bidder for the work items specified in the bid documents, with consideration given to any alternates selected by the City. If the City determines that the unit price for any item is materially different for the work item bid than either other bidders or the general market, the City, in its sole discretion, in addition to any other right it may have, may reject the bid as not responsible or non-conforming.

The acceptability of major subcontractors will be considered in determining if a Bidder is responsible. In comparing proposals, the City will give consideration to alternate proposals for items listed in the forms, or other alternates which the Bidder may wish to submit, but preference will be given to Base Bid Proposals.

The City reserves the right to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

Bid Security

Each proposal must be accompanied by a certified check, or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

Withdrawal of Bids

After the time of opening, no Bid may be withdrawn for the period of days specified in the Advertisement.

Contract Time

Time is of the essence in the performance of the work under this Contract. The available time for work under this Contract is indicated on page C-1, Article III of the Contract. If these time requirements can not be met, the Bidder must stipulate on Bid Form Section 3 - Time Alternate its schedule for performance of the work. Consideration will be given to time in evaluating bids.

Liquidated Damages

A liquidated damages clause, as given on page C-2, Article III of the Contract, provides that the Contractor shall pay the City as liquidated damages, and not as a penalty, a certain sum per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the City shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

Human Rights Information

Section 5, beginning at page GC-3, outlines the requirements for fair employment practices under City of Ann Arbor Contracts. To establish compliance with this Ordinance, the Bidder must complete and return with its bid completed copies of the Human Rights Division Contract Compliance Forms (copy attached) or an acceptable equivalent.

Wage Requirements

Section 4, beginning at page GC-1, outlines the requirements for payment of prevailing wages or of a 'living wage' to employees providing service to the City under this contract. In addition Section 4 outlines the requirement for execution of a CUT Agreement with the Washtenaw County Skilled Building Trades Council (SBTC). The successful bidder must comply with all applicable requirements and provide documentary proof of compliance when requested.

Major Subcontractors

The Bidder shall identify each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor.

PROPOSAL

City of Ann Arbor
Guy C. Larcom Municipal Building
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including Advertisement, Human Rights Division Contract Compliance Forms, CUB Agreement, Notice of Pre-Bid Conference, Instructions to Bidders, Proposal, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this proposal is one part.

In accordance with these bid documents, and Addenda numbered _____, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the provisions of the Ann Arbor City Council Resolution R-09-459, and that it understands and agrees that any labor used on this Bid to be awarded by the City shall be governed by the current collective bargaining agreement of the appropriate Labor Unions of the Washtenaw County Skilled Building Trades Council (SBTC). The Bidder further acknowledges and agrees that if awarded the bid, Bidder, and any and all subcontractors employed by it in performance of contract shall as a condition of award be required to execute a CUB Agreement with SBTC. Bidder further agrees that the cited City Council Resolution forms a part of this Contract.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:319 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form part of this Contract.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Proposal shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Proposal, or if this Proposal is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS _____ DAY OF _____, 20__.

Bidder's Name

Official Address

Authorized Signature of Bidder

Telephone Number

(Print Name of Signer Above)

LEGAL STATUS OF BIDDER

(The Bidder shall fill out the appropriate form and strike out the other two.)

Bidder declares that it is:

* A corporation organized and doing business under the laws of the state of _____, for whom _____, bearing the office title of _____, whose signature is affixed to this proposal, is authorized to execute contracts.

* A partnership, list all members and the street and mailing address of each:

Also identify the County and State where partnership papers are filed:

County of _____, State of _____

* An individual, whose signature with address, is affixed to this proposal:
(initial)

BID FORM

Section 1 – Unit Prices

Buhr Park Ice Arena Steel Structure Painting
ITB 4109

Item Description	Unit	Total Price
1. Prepare and coat structural steel and interior surface of corrugated metal roof deck in strict accordance with manufacturer's specifications. Protect the vertical siding from material overspray. Finish coating material – Benjamin Moore Paints, Alkyd semi-gloss #P24, super Spec HP DTM. Minimum 2 coats required (see detailed Specifications).	LS	\$ _____
2. Replace/Provide nuts and washers on existing bolts indicated on Sheet 2 (7 total)	LS	\$ _____
3. Repair opening in metal roof deck	LS	\$ _____
4. General Conditions	LS	\$ _____
TOTAL BASE BID		\$ _____

Required Alternate Bids:

1. Prepare and coat metal vertical siding, interior surface only, with P24 in lieu of overspray protection (addition/reduction to/from base bid)	LS	\$ _____
2. Finish coating material – Benjamin Moore Paints, Alkyd semi-gloss #M45/M46, super spec HP DTM, (two component, low cure epoxy mastic coating) in lieu of #P24 for structural steel and interior surface of corrugated metal roof deck. Minimum 2 coats required (see detailed specs)	LS	\$ _____
3. Prepare and coat metal vertical siding, interior surface only, with #M45/M46 in lieu of overspray protection (addition/reduction to/from required alternate bid 2)	LS	\$ _____

BID FORM

Section 2 - Material and Equipment Alternates

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

<u>Item Number</u>	<u>Description</u>	<u>Add/Deduct Amount</u>
--------------------	--------------------	--------------------------

If the Bidder does not suggest any material or equipment alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the contract.

Signature of Authorized Representative of Bidder _____

BID FORM

Section 3 - Time Alternate

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-1, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the contract.

Signature of Authorized Representative of Bidder _____

BID FORM

Section 4 - Major Subcontractors

For purposes of this contract, a Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor), but shall not include any individual who furnishes merely the individual's own personal labor or services.

For the work outlined in these documents the Bidder expects to engage the following major subcontractors to perform the work identified and warrants that any subcontractor identified shall as a condition of employment execute a CUB Agreement with the Washtenaw County Skilled Building Trades Council:

<u>Subcontractor (Name and Address)</u>	<u>Work</u>	<u>Amount</u>
---	-------------	---------------

If the Bidder does not expect to engage any major subcontractor, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any major subcontractor to perform work under the contract.

Signature of Authorized Representative of Bidder _____

CONTRACT

THIS AGREEMENT is made on the ____ day of _____, 20__, between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 100 N. Fifth Avenue, Ann Arbor, Michigan 48104 ('City') and _____ located at _____.

Based upon the mutual promises below, the Contractor and the City agree as follows:

ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the project titled '**Buhr Park Ice Arena Steel Painting, ITB 4109**' in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, which are incorporated as part of this Contract:

Human Rights Division Contract	
Compliance Forms	Contract and Exhibits
Living Wage Declaration of	Bonds
Compliance Forms	General Conditions
(if applicable)	Standard Specifications
CUB Agreement (if applicable)	Detailed Specifications
Bid Forms	Plans
Proposal	Addenda

ARTICLE II - Definitions

Administering Service Area/Unit means Community Services Area

Supervising Professional means Sumedh Bahl, Community Services Administrator, or other persons acting under the authorization of the Administrator/Manager of the Administering Service Area/Unit.

Project means **Buhr Park Ice Arena Steel Structure Painting, ITB 4109**

ARTICLE III - Time of Completion

(A) The work to be completed under this Contract shall begin immediately after the Contractor's receipt of a fully executed Contract.

A. (B) The entire work for this Contract shall be completed in 45 consecutive calendar days. Shorter completion times for certain portions of the work are specified in the Detailed Specifications.

Specific Dates for the project completion are noted in the contract documents

(C) Failure to complete all the work within the time specified above, including any

extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the City, as liquidated damages and not as a penalty, an amount equal to \$100.00 for each calendar day of delay in the completion of all the work. If any liquidated damages are unpaid by the Contractor, the City shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.

As an independent requirement, where the Detailed Specifications identify certain portions of the work to be completed within a shorter period of time and the Contractor fails to complete each portion within the shorter period specified for each portion, including any extension granted in writing by the Project Supervisor, the City is entitled to deduct from the monies due the Contractor, as liquidated damages and not as a penalty, the amount identified in the Detailed Specifications for each portion of the work not timely completed for each calendar day of delay in completion of each portion of the work.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

Liquidated damages under this section are in addition to any liquidated damages due under Section 5 of the General Conditions.

ARTICLE IV - The Contract Sum

- (A) The City shall pay to the Contractor for the performance of the Contract, the lump sum price as given in the Bid Forms for the estimated total of:

_____ Dollars (\$ _____)
use words use numbers

- (B) The amount paid shall be equitably adjusted to cover changes in the work ordered by the Supervising Professional but not required by the contract documents. Increases or decreases shall be determined only by written agreement between the City and Contractor.

ARTICLE V - Assignment

This Contract may not be assigned or subcontracted without the written consent of the City.

ARTICLE VI - Choice of Law

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this agreement, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract.

Whenever possible, each provision of the contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision

will not invalidate the remainder of the contract.

ARTICLE VII - Relationship of the Parties

The parties of the Contract agree that it is not a contract of employment but is a contract to accomplish a specific result. Contractor is an independent contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this agreement.

ARTICLE VIII - Notice

All notices given under this contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the contract documents or other address the Contractor may specify in writing..

ARTICLE IX - Indemnification

To the fullest extent permitted by law, for any loss not covered by insurance under this contract, Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney's fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this contract, by the Contractor or anyone acting on the Contractor's behalf under this contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City's sole negligence.

ARTICLE X - Entire Agreement

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations or agreements whether written or oral. Neither party has relied on any prior representations in entering into this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

FOR CONTRACTOR

By _____

FOR THE CITY OF ANN ARBOR

By _____
John Hieftje, Mayor

By _____
Jacqueline Beaudry, City Clerk

Approved as to substance

By _____
Roger W. Fraser, City Administrator

By _____
Sumedh Bahl, Community Services
Service Area Administrator

Approved as to form and content

Stephen K. Postema, City Attorney

PERFORMANCE BOND

(1) _____ of _____ (referred to as "Principal"), and _____, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for

\$ _____, the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.

(2) The Principal has entered a written contract with the City dated _____, 20__, for: _____ and this bond is given for that contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.

(3) Whenever the Principal is declared by the City to be in default under the contract, the Surety may promptly remedy the default or shall promptly:

(a) complete the contract in accordance with its terms and conditions; or

(b) obtain a bid or bids for submission to the City for completing the contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a contract between such bidder and the City, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.

(4) Surety shall have no obligation to the City if the Principal fully and promptly performs under the contract.

(5) Surety agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work, or to the specifications.

SIGNED AND SEALED this _____ day of _____, 20__.

(Name of Surety Company)

(Name of Principal)

By

(Signature)

By

(Signature)

Its

(Title of Office)

Its

(Title of Office)

Name and address of agent:

Approved as to form:

Stephen K. Postema, City Attorney

LABOR AND MATERIAL BOND

(1) _____ of _____, (referred to as "Principal"), and _____, a corporation duly authorized to do business in the State of Michigan, (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for the use and benefit of claimants as defined in Act 213 of Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq., in the amount of \$ _____, for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.

(2) The Principal has entered a written contract with the City, dated _____, 20____, for _____; and this bond is given for that contract in compliance with Act No. 213 of the Michigan Public Acts of 1963 as amended;

(3) If the Principal fails to promptly and fully repay claimants for labor and material reasonably required under the contract, the Surety shall pay those claimants.

(4) Surety's obligations shall not exceed the amount stated in paragraph 1, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.

SIGNED AND SEALED this _____ day of _____, 20__.

(Name of Surety Company)

By _____
(Signature)

Its _____
(Title of Office)

Approved as to form:

Stephen K. Postema, City Attorney

(Name of Principal)

By _____
(Signature)

Its _____
(Title of Office)

Name and address of agent:

GENERAL CONDITIONS

Section 1 - Execution, Correlation and Intent of Documents

The contract documents shall be signed in 3 copies by the City and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

(1) Addenda in reverse chronological order; (2) Detailed Specifications; (3) Standard Specifications; (4) Plans; (5) General Conditions; (6) Contract; (7) Bid Forms; (8) Bond Forms; (9) Proposal.

Section 2 - Order of Completion

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

Section 3 - Familiarity with Work

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the City upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

Section 4 - Wage and CUB Agreement Requirements

Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section."

Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

Further, to the extent that any employees of the Contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with Section 1:319 of Chapter 14 of Title I of the Code of the City of Ann Arbor, the Contractor agrees to conform to Chapter 23 of Title I of the Code of the City of Ann Arbor, as amended, which in part states:

1:814. Applicability.

- (1) This Chapter shall apply to any person that is a contractor/vendor or grantee as defined in Section 1:813 that employs or contracts with five (5) or more individuals; provided, however, that this Chapter shall not apply to a non-profit contractor/vendor or non-profit grantee unless it employs or contracts with ten (10) or more individuals.
- (2) This Chapter shall apply to any grant, contract, or subcontract or other form of financial assistance awarded to or entered into with a contractor/vendor or grantee after the effective date of this Chapter and to the extension or renewal after the effective date of this Chapter of any grant, contract, or subcontract or other form of financial assistance with a contractor/vendor or grantee.

1:815. Living Wages Required.

- (1) Every contractor/vendor or grantee, as defined in Section 1:813, shall pay its covered employees a living wage as established in this Section.
 - (a) For a covered employer that provides employee health care to its employees, the living wage shall be \$11.71 an hour, or the adjusted amount hereafter established under Section 1:815(3).
 - (b) For a covered employer that does not provide health care to its employees, the living wage shall be \$13.06 a hour, or the adjusted amount hereafter established under Section 1:815(3).
- (2) In order to qualify to pay the living wage rate for covered employers providing employee health care under subsection 1:815(1)(a), a covered employer shall furnish proof of said health care coverage and payment therefore to the City Administrator or his/her designee.

- (3) The amount of the living wage established in this Section shall be adjusted upward no later than April 30, 2010, and every year thereafter by a percentage equal to the percentage increase, if any, in the federal poverty guidelines as published by the United States Department of Health and Human Services for 2009. Subsequent annual adjustments shall be based upon the percentage increase, if any, in the United States Department of Health and Human Services poverty guidelines when comparing the prior calendar year's poverty guidelines to the present calendar year's guidelines. The applicable percentage amount will be converted to an amount in cents by multiplying the existing wage under Section 1.815(1)(b) by said percentage, rounding upward to the next cent, and adding this amount of cents to the existing living wage levels established under Sections 1:815(1)(a) and 1:815(1)(b). Prior to April 1 of each calendar year, the City will notify any covered employer of this adjustment by posting a written notice in a prominent place in City Hall, and, in the case of a covered employer that has provided an address of record to the City, by a written letter to each such covered employer.

Section 5 - Non-Discrimination

The Contractor agrees to comply with the nondiscrimination provisions of Chapter 112 of the Ann Arbor City Code and to take affirmative action to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate any inequality based upon race, national origin or sex. The Contractor agrees to comply with the provisions of Section 9:161 of Chapter 112 of the Ann Arbor City Code and in particular the following excerpts:

9:161 NONDISCRIMINATION BY CITY CONTRACTORS

- (1) All contractors proposing to do business with the City of Ann Arbor shall satisfy the nondiscrimination administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All contractors shall receive approval from the Director prior to entering into a contract with the City, unless specifically exempted by administrative policy. All City contractors shall take affirmative action to insure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon race, national origin or sex.
- (2) Each prospective contractor shall submit to the City data showing current total employment by occupational category, sex and minority group. If, after verifying this data, the Director concludes that it indicates total minority and female employment commensurate with their availability within the contractor's labor recruitment area, i.e., the area from which the contractor can reasonably be expected to recruit, said contractor shall be accepted by the Director as having fulfilled affirmative action requirements for a period of one year at which time the Director shall conduct another review. Other contractors shall develop an affirmative action program in conjunction with the Director. Said program shall include specific goals and timetables for the hiring and promotion of minorities and females. Said goals shall reflect the availability of minorities and females within the contractor's labor recruitment area. In the case of construction contractors, the Director shall use for employment verification the labor recruitment area of the Ann Arbor-Ypsilanti standard metropolitan statistical area. Construction contractors determined to be in compliance shall be accepted by the Director as having fulfilled affirmative action requirements for a period of six (6) months at which time the Director shall conduct another review.

- (3) In hiring for construction projects, contractors shall make good faith efforts to employ local persons, so as to enhance the local economy.
- (4) All contracts shall include provisions through which the contractor agrees, in addition to any other applicable Federal or State labor laws:
 - (a) To set goals, in conference with the Human Resources Director, for each job category or division of the work force used in the completion of the City work;
 - (b) To provide periodic reports concerning the progress the contractor has made in meeting the affirmative action goals it has agreed to;
 - (c) To permit the Director access to all books, records and accounts pertaining to its employment practices for the purpose of determining compliance with the affirmative action requirements.
- (5) The Director shall monitor the compliance of each contractor with the nondiscrimination provisions of each contract. The Director shall develop procedures and regulations consistent with the administrative policy adopted by the City Administrator for notice and enforcement of non-compliance. Such procedures and regulations shall include a provision for the posting of contractors not in compliance.
- (6) All City contracts shall provide further that breach of the obligation not to discriminate shall be a material breach of the contract for which the City shall be entitled, at its option, to do any or all of the following:
 - (a) To cancel, terminate, or suspend the contract in whole or part and/or refuse to make any required periodic payments under the contract;
 - (b) Declare the contractor ineligible for the award of any future contracts with the City for a specified length of time;
 - (c) To recover liquidated damages of a specified sum, said sum to be that percentage of the labor expenditure for the time period involved which would have accrued to minority group members had the affirmative action not been breached;
 - (d) Impose for each day of non-compliance, liquidated damages of a specified sum, based upon the following schedule:

<u>Contract Amount</u>	<u>Assessed Damages Per Day of Non-Compliance</u>
\$ 10,000 - 24,999	\$ 25.00
25,000 - 99,999	50.00
100,000 - 199,999	100.00
200,000 - 499,999	150.00
500,000 - 1,499,999	200.00

1,500,000 - 2,999,999	250.00
3,000,000 - 4,999,999	300.00
5,000,000 - and above	500.00

(e) In addition the contractor shall be liable for any costs or expenses incurred by the City of Ann Arbor in obtaining from other sources the work and services to be rendered or performed or the goods or properties to be furnished or delivered to the City under this contract.

Section 6 - Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned.

Adequate sanitary facilities shall be provided by the Contractor.

Section 7 - Qualifications for Employment

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.

Section 8 - Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the City harmless from loss on account of infringement except that the City shall be responsible for all infringement loss when a particular process or the product of a particular manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

Section 9 - Permits and Regulations

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The City shall secure and pay for easements shown on the plans unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for

changes in the work.

Section 10 - Protection of the Public and of Work and Property

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to it's work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or employees of the City. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

Section 11 - Inspection of Work

The City shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

Section 12 - Superintendence

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

Section 13 - Changes in the Work

The City may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

Section 14 - Extension of Time

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

- (1) When work under an extra work order is added to the work under this Contract;
- (2) When the work is suspended as provided in Section 20;
- (3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;
- (4) Delays in the progress of the work caused by any act or neglect of the City or of its employees or by other Contractors employed by the City;
- (5) Delay due to an act of Government;
- (6) Delay by the Supervising Professional in the furnishing of plans and necessary information;
- (7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or

conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

Section 15 - Claims for Extra Cost

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section 13. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

- (1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;
- (2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;
- (3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;
- (4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;
- (5) Payments of all charges for work under this Section in any one month shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the

Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

Section 16 - Progress Payments

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. The submission shall be to the City's Finance Department - Accounting Division. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the City will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The City will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.

An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery, 60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than 180 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2.

Section 17 - Deductions for Uncorrected Work

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

Section 18 - Correction of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within 10 days after written notice, the City may remove them and, if the removed material has value, may store the material at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the City may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the City the expenses for disposal within 10 days of invoice for the disposal costs.

The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

Section 19 - Acceptance and Final Payment

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the City under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the City:

- (1) The consent of the surety to payment of the final estimate;
- (2) The Contractor's Affidavit in the form required by Section 44.

In case the Affidavit or consent is not furnished, the City may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City except those arising from:

- (1) unsettled liens;
- (2) faulty work appearing within 12 months after final payment;
- (3) hidden defects in meeting the requirements of the plans and specifications;

- (4) manufacturer's guarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

Section 20 - Suspension of Work

The City may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the written notice from the City to the Contractor to do so. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.

If the work, or any part, shall be stopped by the notice in writing, and if the City does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

Section 21 - Delays and The City's Right to Terminate Contract

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the City may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the City may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any excess cost to the City. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The City may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the City for any excess cost incurred.

The expense incurred by the City, and the damage incurred through the Contractor's default, shall be

certified by the Supervising Professional.

Section 22 - Contractor's Right to Terminate Contract

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the City, terminate this Contract and recover from the City payment for all acceptable work executed plus reasonable profit.

Section 23 - City's Right To Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the City, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the City may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

Section 24 - Removal of Equipment and Supplies

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the City, shall promptly remove any part or all of its equipment and supplies from the property of the City, failing which the City shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the City and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the City upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

Section 25 - Responsibility for Work and Warranties

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the City for damages to materials and equipment from any cause except negligence or willful act of the City. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days.

The Contractor shall assign all manufacturer or material supplier warranties to the City prior to final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

Section 26 - Partial Completion and Acceptance

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the City, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the City may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

Section 27 - Payments Withheld Prior to Final Acceptance of Work

The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the City from loss on account of:

- (1) Defective work not remedied;
- (2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;
- (3) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- (4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the City which will protect the City in the amount withheld, payment shall be made for amounts withheld under this section.

Section 28 - Contractor's Insurance

- A. The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself from all claims for bodily injuries, death or property

damage which may arise under this Contract; whether the acts were made by the Contractor or by any subcontractor or anyone employed by them directly or indirectly. The following insurance policies are required:

1. Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

Bodily Injury by Accident - \$500,000 each accident
Bodily Injury by Disease - \$500,000 each employee
Bodily Injury by Disease - \$500,000 each policy limit

2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements including, but not limited to: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further, the following minimum limits of liability are required:

\$1,000,000 Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined.

\$2,000,000 Per Job General Aggregate

\$1,000,000 Personal and Advertising Injury

\$2,000,000 Products and Completed Operations Aggregate

3. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.
4. Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.

B. Insurance required under Section A.2 and A.3 of this Contract shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City.

C. In the case of all Contracts involving on-site work, the Contractor shall provide to the City before the commencement of any work under this Contract documentation demonstrating it has obtained the above mentioned policies. Documentation must provide and demonstrate an

unconditional 30 day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified. An original certificate of insurance may be provided as an initial indication of the required insurance, provided that no later than 21 calendar days after commencement of any work the Contractor supplies a copy of the endorsements required on the policies. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the City. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies to the Administering Service Area/Unit at least ten days prior to the expiration date.

- D. Any Insurance provider of Contractor shall be admitted and authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of 'A' Overall and a minimum Financial Size Category of V. Insurance policies and certificates issued by non-admitted insurance companies are not acceptable unless approved in writing by the City.

Section 29 - Surety Bonds

Bonds will be required from the successful bidder as follows:

- (1) A Performance Bond to the City of Ann Arbor for the amount of the bid(s) accepted;
- (2) A Labor and Material Bond to the City of Ann Arbor for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the City in a manner and by a Surety Company satisfactory to the City Attorney.

Section 30 - Damage Claims

The Contractor shall be held responsible for all damages to property of the City or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

Section 31 - Refusal to Obey Instructions

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

Section 32 - Assignment

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the City.

Section 33 - Rights of Various Interests

Whenever work being done by the City's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

Section 34 - Subcontracts

The Contractor shall not award any work to any subcontractor without prior written approval of the City. The approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the contract documents.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the City.

Section 35 - Supervising Professional's Status

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.

Section 36 - Supervising Professional's Decisions

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the City or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

Section 37 - Storing Materials and Supplies

Materials and supplies may be stored at the site of the work at locations agreeable to the City unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

Section 38 - Lands for Work

The Contractor shall provide, at its own expense and without liability to the City, any additional land and access that may be required for temporary construction facilities or for storage of materials.

Section 39 - Cleaning Up

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the City's property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.

Section 40 - Salvage

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain City property and shall be transported or stored at a location as the Supervising Professional may direct.

Section 41 - Night, Saturday or Sunday Work

Any night or weekend work must be approved by City Staff in writing prior to scheduling.

Section 42 - Sales Taxes

Under State law the City is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in City projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.

Section 43

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period _____, 20__, to _____, 20__, performed any work, furnished any materials, sustained any loss, damage or delay, or otherwise done anything in addition to the regular items (or executed change orders) set forth in the Contract titled _____,for which I shall ask, demand, sue for, or claim compensation or extension of time from the City, except as I hereby make claim for additional compensation or extension of time as set forth on the attached itemized statement. I further declare that I have paid all payroll obligations related to this Contract that have become due during the above period and that all invoices related to this Contract received more than 30 days prior to this declaration have been paid in full except as listed below.

There is/is not (Contractor please circle one and strike one as appropriate) an itemized statement attached regarding a request for additional compensation or extension of time.

Contractor Date

By
(Signature)

Its
(Title of Office)

Past due invoices, if any, are listed below.

CONTRACTOR'S AFFIDAVIT

The undersigned Contractor, _____, represents that on
,20___, it was awarded a contract by the City of Ann Arbor, Michigan to
_____ under the terms and conditions of a Contract titled
_____.

The Contractor represents that all work has now been accomplished and the Contract is complete.

The Contractor warrants and certifies that all of its indebtedness arising by reason of the Contract has been fully paid or satisfactorily secured; and that all claims from subcontractors and others for labor and material used in accomplishing the project, as well as all other claims arising from the performance of the Contract, have been fully paid or satisfactorily settled. The Contractor agrees that, if any claim should hereafter arise, it shall assume responsibility for it immediately upon request to do so by the City of Ann Arbor.

The Contractor, for valuable consideration received, does further waive, release and relinquish any and all claims or right of lien which the Contractor now has or may acquire upon the subject premises for labor and material used in the project owned by the City of Ann Arbor.

This affidavit is freely and voluntarily given with full knowledge of the facts.

Contractor

By _____
(Signature)

Its _____
(Title of Office)

Subscribed and sworn to before me, on this _____ day of _____, 20___
_____, _____ County, Michigan

Notary Public

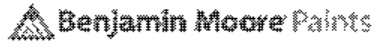
My commission expires on: _____

STANDARD SPECIFICATIONS

All work under this contract shall be performed in accordance with the Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Advertisement. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

These Standard Specifications are available for public viewing on the City of Ann Arbor Website:

www.a2gov.org/government/publicservices/project_management/privatedev/Pages/Standardspecificationbook.aspx



SECTION 09910

PAINT

Submittal for: Buhr Ice Arena
Steel Structure Painting
Ann Arbor, Michigan
Prepared by: Ron Kerekes
Benjamin Moore & Co
Submitted to: Frank Biehl
Mannik & Smith Group (MSG)

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Exterior Paint.

1.2 RELATED SECTIONS

- A. Section 05500 - Metal Fabrications: Preparation of prefabricated metal to receive finishes.

1.3 REFERENCES

- A. Green Seal Standard GS-11; May 20, 1993.
- B. MPI (APL) - Master Painters Institute.
- C. SCAQMD 1168 - South Coast Air Quality Management District Rule #1168; October 3, 2003.
- D. SSPC (PM1) - Steel Structures Painting Manual, Vol. 1, Good Painting Practice; Society for Protective Coatings; 1993, Third Edition.
- E. SSPC (PM2) - Steel Structures Painting Manual, Vol. 2, Systems and Specifications; Society for Protective Coatings; 1995, Seventh Edition.
- F. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.

1.4 DEFINITIONS

- A. Paints are available in a wide range of sheens or glosses, as measured by a gloss meter from a 60 degree angle from vertical, as a percentage of the amount of light that is reflected. The following terms are used to describe the gloss of our products.
 - 1. Flat - Less than 5 Percent.
 - 2. Matte - 0 - 10 Percent.
 - 3. Eggshell - 10 - 25 Percent.
 - 4. Satin - 20 - 35 Percent.
 - 5. Semi-Gloss - 35 - 70 Percent.
 - 6. Gloss - 70 - 85 Percent.

09910-1

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Coordinate with Section 01305 - Submittals, for submittal procedures and LEED Submittal Forms MRc3, MRc4, MRc5.
- C. LEED Certification Product Data:
 - 1. See Section 01115 - Green Building Requirements, for LEED certification submittal forms and certification templates.
 - 2. Submittals Required:
 - a. MRc3 Resource Reuse (LEED Form).
 - b. MRc4 Recycled Content (LEED Form).
 - c. MRc5 Local and Regional Materials (LEED Form).
 - d. EQc4.1 Low Emitting Materials - Adhesives and Solvents (VOC Certification Letter).
 - e. EQc4.2 Low Emitting Materials - Paint (VOC Certification Letter).
 - f. Green Seal Standard GS-11 Certified Product certificates.
- D. Product Data: Provide a complete list of all products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category.
 - 2. Cross-reference to specified paint system(s) that the product is to be used in; include description of each system.
- E. Manufacturer's Instructions: Indicate special surface preparation procedures.
- F. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten (10) years experience.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
- C. Disposal:
 - 1. Never pour leftover coating down any sink or drain. Use up material on the job or seal can and store safely for future use.

09910-2

2. Do not incinerate closed containers.
3. For specific disposal or recycle guidelines, contact the local waste management agency or district. Recycle whenever possible.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY

- A. At project closeout, provide to the Owner or owner's representative an executed copy of the Manufacturer's standard form outlining the terms and conditions of and any exclusions to their Limited Warranty against Manufacturing Defect.

1.10 EXTRA MATERIALS

- A. At project closeout, supply the Owner or owner's representative one gallon of each product for touch-up purposes.
- B. At project closeout, provide the color mixture name and code to the Owner or owner's representative for accurate future color matching.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Benjamin Moore & Co., which is located at: 101 Paragon Dr ; Montvale, NJ 07645; Toll Free Tel: 866-708-9181; Tel: 201-573-9600; Email: info@benjaminmoore.com; Web: www.benjaminmoore.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MATERIALS - GENERAL

- A. Compatibility: Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

2.3 MIXING AND TINTING

- A. Except where specifically noted in this section, all paint shall be ready-mixed and pre-tinted. Agitate all paint prior to and during application to ensure uniform color, gloss, and consistency.
- B. Thinner addition shall not exceed manufacturer's printed recommendations. Do not use kerosene or other organic solvents to thin water-based paints.
- C. Where paint is to be sprayed, thin according to manufacturer's current guidelines.

2.4 EXTERIOR FINISH COATS

- A. Semi-Gloss Finish:
 1. Alkyd:
 - a. Two (2) Coats - Super Spec HP D.T.M. Alkyd Semi-Gloss #P24 (MPI Listed Product, Category 81).

09910-3

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Ensure that surfaces to receive paint are dry immediately prior to application.
- C. Examine surfaces to receive coatings for surface imperfections and contaminants that could impair performance or appearance of coatings, including but not limited to, loose primer, rust, scale, oil, grease, mildew, algae, or fungus, stains or marks, cracks, indentations, or abrasions.
- D. Correct conditions that could impair performance or appearance of coatings in accordance with specified surface preparation procedures before proceeding with coating application.

3.2 PREPARATION - GENERAL

- A. Clean surfaces thoroughly prior to coating application.
- B. Do not start work until surfaces to be finished are in proper condition to produce finished surfaces of uniform, satisfactory appearance.
- C. Stains and Marks: Remove completely, if possible, using materials and methods recommended by coating manufacturer; cover stains and marks which cannot be completely removed with isolating primer or sealer recommended by coating manufacturer to prevent bleed-through.
- D. Remove Mildew, Algae, and Fungus using materials and methods recommended by coating manufacturer.
- E. Remove dust and loose particulate matter from surfaces to receive coatings immediately prior to coating application.
- F. Remove or protect adjacent hardware, electrical equipment plates, mechanical grilles and louvers, lighting fixture trim, and other items not indicated to receive coatings.
- G. Move or protect equipment and fixtures adjacent to surfaces indicated to receive coatings to allow application of coatings.
- H. Protect adjacent surfaces not indicated to receive coatings.
- I. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and materials recommended by coating manufacturer.

3.3 SURFACE PREPARATION

- A. Existing Coatings:
 - 1. Remove surface irregularities by scraping or sanding to produce uniform substrate for coating application; apply one coat primer of type recommended by coating manufacturer for maximum coating adhesion.
 - 2. If presence of lead in existing coatings is suspected, cease surface

09910-4

preparation and notify Architect immediately.

- B. Metals - Ferrous, : Remove rust or scale, if present, following SSPC-SP-11 surface preparation method (Power Tool Cleaning To Base Metal).

3.4 APPLICATION - GENERAL

- A. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thins, brush marks, roller marks, orange-peel, or other application imperfections are not permitted.
- B. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat.
- C. Inspect each coat before applying next coat; touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet (1.5 m).
- D. Remove dust and other foreign materials from substrate immediately prior to applying each coat.
- E. Where paint application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.
- F. Where color changes occur between adjoining spaces, through framed openings that are of same color as adjoining surfaces, change color at outside stop corner nearest to face of closed door.
- G. Re-prepare and re-coat unsatisfactory finishes; refinish entire area to corners or other natural terminations.

3.5 CLEANING

- A. Clean excess coating materials, and coating materials deposited on surfaces not indicated to receive coatings, as construction activities of this section progress; do not allow to dry.
- B. Re-install hardware, electrical equipment plates, mechanical grilles and louvers, lighting fixture trim, and other items that have been removed to protect from contact with coatings.
- C. Reconnect equipment adjacent to surfaces indicated to receive coatings.
- D. Relocate to original position equipment and fixtures that have been moved to allow application of coatings.
- E. Remove protective materials.

3.6 PROTECTION

- A. Protect completed coating applications from damage by subsequent construction activities.
- B. Repair to Architect's acceptance coatings damaged by subsequent construction activities. Where repairs cannot be made to Architect's acceptance, re-apply finish

09910-5

coating to nearest adjacent change of surface plane, in both horizontal and vertical directions.

END OF SECTION

09910-6



BENJAMIN MOORE® SUPER SPEC HP® D.T.M. ALKYD SEMI-GLOSS P24

Features

- Dual purpose — primer and finish coat
- Rust preventative coating
- Durable semi-gloss finish
- Unlimited custom tinted colors
- Interior or exterior application
- Apply by brush, roller or various spray methods

Recommended For

- Metal
- Interior or Exterior Surfaces
- Equipment
- Machinery
- Catwalks & Railings
- Metal Doors & Lockers
- Piping
- Metal Buildings
- Fences
- General Maintenance Painting

General Description

This product is designed to perform a dual purpose as a direct to metal primer and finish. Both coats of the product provide rust inhibition for superior corrosion control. This product provides good color and gloss retention on both interior and exterior surfaces.

Limitations

- **FOR USE ON METAL SUBSTRATES ONLY.**
- Not for application directly on galvanized metal.
- Not for floor applications.
- Uncoated ferrous metal must receive a minimum of two coats.

Product Information

Labor Saving Benefits

- Very good rust inhibition for direct to metal application
- Tough durable semi-gloss finish hides surface defects for a professional finish
- Unlimited custom tinted colors satisfying the most stringent color needs
- Versatile application by roller or various spray methods

Colors:

—Standard:

P24-08 Safety White P24-82 Safety Black

—Benjamin Moore® Color Preview® Tint Bases:

P24-1B Pastel P24-2B Medium
P24-3B Deep P24-4B Ultra

—Special Colors: Contact your Benjamin Moore & Co. representative.

Certification:

Available in all regulated areas, except South Coast

Master Painters Institute MPI # 81

Technical Assistance

Available through your local authorized independent BENJAMIN MOORE® retailer.

For the location of the retailer nearest you, call 1-800-826-2623, see www.benjaminmoore.com, or consult your local YellowPages.

Technical Data

Technical Data		Pastel Base
Vehicle Type	Modified-Alkyd	
Pigment Type	Corrosion Inhibitors & Titanium Dioxide	
Volume Solids	49%	
Theoretical Coverage At Recommended Film Thickness	350-450 Sq. Ft.	
Be sure to estimate the right amount of paint for the job. This will ensure proper coverage and minimize the disposal of excess paint.		
Recommended Film Thickness	—Wet	3.6-4.6 mils
	—Dry	1.7-2.3 mils
Dry Time @ 77° F (25° C) @ 50% RH	—Set To Touch	2 Hours
	—To Recoat	16 Hours
Dries By	Solvent Evaporation, Oxidation	
Viscosity [§]	88 ± 5 KU	
Flash Point	103° F	
Gloss/Sheen	45-55%	
Surface Temperature at application	— Min.	50° F
	— Max	90° F
Thin With	Do Not Thin	
Clean Up Thinner	Mineral Spirits	
Weight Per Gallon [§]	10.3 lbs.	
Storage Temperature	— Min	40° F
	— Max	90° F

Volatile Organic Compounds (VOC) [§]
391 Grams / Liter 3.26 LBS / Gallon

[§]Reported values are for Pastel Base. Contact Benjamin Moore & Co. for values of other bases or colors.

Super Spec HP® D.T.M. Alkyd Semi-Gloss Enamel (P24)

Surface Preparation

Surfaces to be painted must be clean and free from wax, oil, grease, dust, rust, loose paint and water soluble materials. All loose rust or peeling paint should be removed and glossy surfaces should be dulled before re-coating. If mildew is evident it must be removed by application of a commercial mildew wash. CAUTION: Follow manufacturer's application and safety directions.

WARNING! If you scrape, sand or remove old paint, you may release lead dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Primer/Finish Systems

Ferrous Metal, New:

Finish:

1 or 2 coats Super Spec HP® D.T.M. Alkyd Semi-Gloss Enamel (P24)

Ferrous Metal, Repaint:

Finish:

1 or 2 coats Super Spec HP® D.T.M. Alkyd Semi-Gloss Enamel (P24)

Galvanized Metal, New or Bare:

Prime:

1 coat P04 Super Spec HP® Acrylic Metal Primer.

Finish, primed or previously painted galvanized:

1 or 2 coats Super Spec HP® D.T.M. Alkyd Semi-Gloss Enamel (P24)

Application

Stir thoroughly before and occasionally during use. Apply one or two coats. For best results, use a Benjamin Moore® Professional custom-blended nylon/polyester or china bristle brush, Benjamin Moore® Professional roller, or a similar product. This product can also be sprayed.

Spray, Airless: Fluid Pressure — 1,500 to 3,000 PSI;
Tip — .011 – .015 rifice

Thinning/Cleanup

Do not thin.

Clean all equipment immediately after use with mineral spirits.

DANGER – Rags, steel wool or waste soaked with the product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed water-filled metal container.

USE COMPLETELY OR DISPOSE OF PROPERLY. This product contains organic solvents which may cause adverse effects to the environment if handled improperly. Disposal of wastes containing either organic solvents or free-liquids in landfills is prohibited. Dry, empty containers may be recycled in a can recycling program. **Local disposal requirements vary; consult your sanitation department or state-designated environmental agency for local disposal options.**

Environmental, Health & Safety Information

Contains: Petroleum Distillates and Stoddard Solvent

HARMFUL OR FATAL IF SWALLOWED. CAUSES IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT

NOTICE: Repeated or prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

Keep away from heat and flame. **Use only with adequate ventilation.** Do not breathe vapors, spray mist or sanding dust. Avoid contact with eyes and prolonged or repeated contact with skin. Wear eye protection and gloves. To avoid breathing vapors or spray mist, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches or dizziness, increase fresh air or wear a properly fitted vapor/particulate NIOSH approved respirator during application, sanding and clean up. Follow respirator manufacturer's directions for respirator use. Close container after each use.

FIRST AID: If affected by inhalation of vapors or spray mist, remove to fresh air. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and call physician; for skin, wash thoroughly with soap and water. If swallowed, do not induce vomiting. Get medical attention immediately.

IN CASE OF FIRE – Use foam CO₂, dry chemical or water fog.

SPILL – Absorb with inert material and dispose of as specified under "Clean Up".

**KEEP OUT OF REACH OF CHILDREN
FOR METAL SUBSTRATES ONLY**

**Refer to Material Safety Data Sheet for additional
health and safety information.**



M45L / M46 Low Cure Epoxy Mastic Coating

Performance Standards

All test results are for Tintable White unless otherwise noted.

Description	Test	Results
Adhesion	ASTM D 3359 Cross Cut Tape Test	5B
	Elcometer Adhesion	500 P.S.I.
Abrasion Resistance	ASTM D 4060 C17 Wheels, 1000 gm Load	21 mg
Impact Resistance	ASTM D 2794 Gardner Impact, 7 Day Air Dry at 77° F	Direct 20 inch pounds, reverse 4 inch pounds
Flexibility	ASTM D 522 Conical Mandrel Apparatus	14%
Chemical Resistance ASTM D1308 24 Hour Covered Watch Glass Spot Test	5% NaOH	No Effect
	5% H ₂ SO ₄	No Effect
	100% Xylene	No Effect
	100% Mineral Spirits	No Effect
Hardness	ASTM D3363 Pencil Hardness 7 Day Cure	8H
Exterior Durability	ASTM G53 Accelerated aging via exposure to fluorescent, ultraviolet, and condensation.	Yellows
Salt Fog Resistance	ASTM B117	500 Hours — No effect
		2,000 Hours — Light scribe rust
Immersion	Ambient	1500 Hours - No effect
Graffiti Resistance	Crayon: Good	Ink Pen: Poor
	Lipstick: Good	Shoe Polish: Good
Hot Water Immersion	180° F	Litter: Good
		Marker: Good
Other	ASTM D4585 Cleveland Humidity Cabinet	1500 Hours - No effect
		8,736 Hours — No effect

Environmental, Health & Safety Information

DANGER! FLAMMABLE LIQUID AND VAPOR! HARMFUL IF INHALED OR SWALLOWED. VAPOR HARMFUL.
Contains butyl alcohol, epoxy resin and xylene (xylol): VAPOR HARMFUL. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE, OR NAUSEA. CAUSES EYE, SKIN, NOSE, AND THROAT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION.

IMPORTANT: Designed to be mixed with other components (M46). Mixture will have hazards of both components. Before opening packages, read all warning labels. Follow all precautions.

NOTICE: Repeated and prolonged exposure to solvents may lead to permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are signs that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. To avoid breathing vapors or spray mist, open window and doors or use other means to ensure fresh air entry during application and drying.

Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only with adequate ventilation. Do not breathe vapors, spray mist or sanding dust. Do not get in eyes or on skin.

WEAR A PROPERLY FITTED VAPOR/PARTICULATE RESPIRATOR APPROVED BY NIOSH FOR USE WITH PAINTS, eye protection, gloves, and protective clothing during application (or sanding) and until all vapors and spray mist are exhausted. In confined places or in situation where continuous spray operations are typical, or if proper respirator fit is not possible, wear a positive-pressure, supplied air respirator approved by NIOSH. In all cases, follow respirator manufacturer's directions. Do not permit anyone without protection in the painting area. Close container after each use.

FIRST AID: If affected by inhalation of vapors or spray mist, remove to fresh air. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and call a physician. For skin, wash thoroughly with soap and water. In case of ingestion, DO NOT induce vomiting. Get medical help immediately.

IN CASE OF FIRE – Use foam, CO₂, dry chemical, or water fog. **SPILL** – Absorb with inert material and dispose of in accordance with applicable regulations.

USE COMPLETELY OR DISPOSE OF PROPERLY. Empty container with product residue may still be flammable, follow all hazard statements until it has been disposed of. This product contains organic solvents which may cause adverse effects to the environment if handled improperly. Disposal of wastes containing either organic solvents or free-liquids in landfills is prohibited. Dry, empty containers may be recycled in a can recycling program. **Local disposal requirements vary; consult your sanitation department or state-designated environmental agency on disposal options.**

FOR PROFESSIONAL USE ONLY KEEP OUT OF REACH OF CHILDREN
 Refer to Material Safety Data Sheet available from your retailer for further safety and handling information.

Warranty & Limitation of Sellers Liability

All statements made on any product label, product manual, product data sheets, technical data charts or specification charts contained herein, are accurate to the best of our knowledge. The products and information are intended for use by persons having skill and know-how in the industry at their own discretion and risk. Benjamin Moore & Co. warrants only that its coatings represented herein meet the formulation standards of Benjamin Moore & Co. **NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY THE SELLER, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OR LAW, OR OTHERWISE INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.** Workmanship, weather, construction equipment, quality of other materials and other variables affecting the results are beyond our control. No agent, employee or representative of seller has any authority to bind seller to any affirmation, representation or warranty except as stated above.

Benjamin Moore & Co.

INDUSTRIAL MAINTENANCE COATINGS

M45L / M46 Low Cure Epoxy Mastic Coating

Features

- Low temperature cure
- Self-priming
- High build — up to 20 mils wet
- Exceptional adhesion
- Apply over tightly adhering rust
- Good flexibility
- Good impact resistance
- Good wetting properties
- Reduced undercutting at damaged areas
- Fast cure at high temperatures
- Reduced number of coats required
- High solids
- Low VOC content
- Reduced pinholing
- No lifting of conventional coatings
- Immersion in fresh or salt water
- Interior or exterior application

Recommended For:

- Bulk storage tanks
- Structural and support steel
- Off-shore rigs
- Roof decks
- Bar joists
- Piping
- Catwalks
- Water and waste treatment plants
- Dairies
- Bottling plants
- Power generating plants
- Food processing
- Hospitals
- Schools

General Properties

This two-component, high build, low temperature curing epoxy is self-priming and has exceptional adhesion even over tightly adhering rust. It also has good flexibility and impact resistance, plus good wetting properties, almost eliminating undercutting at damaged areas. The high solids provide exceptional coverage and the low solvent reduces pinholes and lifting of conventional coatings. May be used as a high build primer, an intermediate coat or single coat interior applications. Minimum two coats for exterior applications. For immersion in fresh or saltwater.

Limitations:

- Not for immersion in low pH liquids
- Not for immersion in strong solvents
- Not for application on high abuse floors
- Tendency to yellow on exterior surfaces
- Limited gloss retention on exterior surfaces

Product Information

Mixing Instructions:

This two-component product is mixed as a 1 to 1 ratio by volume of components "A" to "B." First, mix each component separately until uniform, then combine components "A" & "B" and mix thoroughly (5 minutes) or until homogeneous. For best results, use a spiral mixing blade in a variable speed (400-600 rpm) electric drill. Place the spiral mixing blade at the bottom of the container before turning on the mixer. This will help avoid inducting air into the material. Inducted air will cause "bubbles" in the coating when applied. Gently move the mixer head up to the surface while running. Do not remove the head while it is still spinning. Allow the combined components to sit for an induction time of 30 minutes, then lightly stir again to ensure uniformity. This product has a workable pot life of 2½ hours at 70° F (see chart under Application Information). Applying the material immediately after the 30 minute's induction time will provide best results.

Note: Higher air and mixture temperatures will decrease the pot life and working time.

Colors: ALL MUST BE MIXED WITH M46-84 CATALYST

—**Tint Bases:** M45L-90 Tintable White
M45L-91 Deep Base
M45L-92 Clear Base

—**Special Colors:** Contact your Benjamin Moore & Co. Representative

Certification:

Formulated without lead, mercury, or chromates.
Does not contain any ozone-depleting substances, either Class I or Class II.

Analysis:

M45L-90 F, as mixed with M46-84 F		Vehicle: 46.6%	
Pigment: 53.4%		Anisole Aralkyl Epoxy Resin	70.8%
Titanium Dioxide	34.6%	Solvents & Additives	29.2%
Inhibitive Pigments	18.8%		
Inert Pigments	46.0%		
	100.0%		100.0%

Technical Data

Tintable White	
Generic Type	Modified Amine Epoxy
Pigment Type	Titanium Dioxide & Corrosion Inhibitors
Volume Solids (mixed as recommended)	76%
Theoretical Coverage	300 Sq. Ft. @ 4 Mil
Film Thickness – Wet	3.9 – 6.6 mils
– Dry	3 – 5 mils
Dry Time @ 70° F	– To Touch 2 Hours
(see chart under Application Information)	– To Recoat 3½ Hours
Dries By	Chemical Cure
Dry Heat Resistance – Intermittent	350° F
Viscosity @ 70° F (mixed as recommended)	100 ± 5 KU
Flash Point (Seta)	82° F
60° Specular Gloss	– Semi-Gloss 30% – 50%
Surface Temperature At Application – Min.	40° F
– Max.	90° F
Surface must be dry and at least 5' above the dew point.	
Reducer	M95
Reduction – Brush	5%
– Roller	5%
– Spray	10%
Clean Up Thinner	M95
Mixing Ratio (by volume)	1:1
Induction Time	30 Minutes
Pot Life @ 70° F	2½ Hours
(see chart under Application Information)	
Weight Per Gallon (mixed as recommended)	13.9 lbs
Storage Temperature – Min.	40° F
– Max.	90° F

Volatile Organic Compounds (VOC)

**Unthinned	Grams/Liter	222
	Lbs./Gal.	1.8

** Contact Benjamin Moore & Co. for actual levels, which may or may not be substantially less than stated.

Benjamin Moore & Co., 51 Chestnut Ridge Road, Montvale, NJ 07645 Tel: (201) 573-9600 Fax: (201) 573-9046 www.benjaminmoore.com M73 M45L0 8/05



M45L / M46 Low Cure Epoxy Mastic Coating

Primer Selection

Technical Information

	Ferrous Metal Hot or Cold Rolled Steel	Non-Ferrous Metal Galvanized	Block Walls Concrete-Cinder or Lt. Weight
Primer Product Code	M45L/M46	M45L/M46	M31/M32
Generic Type	Amido Amine	Amido Amine	Waterborne Epoxy Block Filler
Pigment Type	Titanium Dioxide, Corrosion Inhibitors	Titanium Dioxide, Corrosion Inhibitors	Organic Fibers and Select Inerts
Volume Solids	76%	76%	46%
Theoretical Coverage at Recommended Film Thickness	300 sq. ft.	300 sq. ft.	75 sq. ft.
Film Thickness - Wet - Dry	5.3 mils 4.0 mils	5.3 mils 4.0 mils	22 mils 10 mils
Dry Time - To Touch - To Recoat	2 hours 3.5 hours	2 hours 3.5 hours	2 hours 16 hours
Dries By	Chemical Cure	Chemical Cure	Chemical Cure
Dry Heat Resistance	300° F	300° F	260° F
Viscosity	100 ± 5 KU	100 ± 5 KU	Mastic
Flash Point (Seta)	82° F	82° F	None
60° Specular Gloss	30-50%	30-50%	10% max.
Surface Temperature - Min. At Application - Max. <small>surface must be dry and at least 5° above the dew point.</small>	40° F 90° F	40° F 95° F	60° F 95° F
Reducer	M95	M95	Clean Water
Reduction - Brush - Roller - Spray	5% 5% 10%	5% 5% 10%	5% 5% 5%
Clean Up Thinner	M95	M95	Water followed by Xylol
Mixing Ratio (by volume)	1:1	1:1	1:1
Induction Time	30 minutes	30 minutes	30 minutes
Pot Life @ 70° F	2.5 hours	2.5 hours	8 hours
Weight Per Gallon	13.9 lbs.	13.9 lbs.	12.0 lbs.
Storage Temperature - Min. - Max.	40° F 90° F	40° F 90° F	40° F 90° F

Note: For additional information regarding primer selection — reference the primer selection chart in the product manual or in the product catalog.

Primer Information

M45L / M46

Self-Priming

M31 / M32

Provides the bonding properties needed to support any two component product when used on high abuse surfaces, high moisture areas or below grade applications. Excellent for areas subjected to repeated cleaning with high pressure water. Protects surfaces in food processing plants, water and waste treatment plants, pulp and paper plants, dairies, bottling plants, and a host of others.

Surface Preparation

Bare Steel

All surfaces shall be free of loose rust, millscale, and contaminants such as oil, grease, dirt, and salts. Before any surface preparation is attempted, oil and grease must be removed by employing SSPC-SP1 Solvent Cleaning. For large areas, use Oil & Grease Emulsifier (M83).

For Mild Exposures

Use Commercial Blast Cleaning to SSPC-SP6 to remove millscale, rust, and other contaminants and leave a roughened surface. Use Power Tool Cleaning to Bare Metal SSPC-SP11 to remove millscale, rust and other contaminants and leave a roughened surface.

For Severe Exposures

Use Near-White Blast Cleaning to SSPC-SP10 to remove millscale, rust, and other contaminants and leave a roughened surface.

WARNING! If you scrape, sand or remove old paint, you may release lead dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Application Information

Due to the rapid dry of this coating, only small areas may be coated by brush, applicator pad, or roller. Generally, this paint is best applied by spray. Care must be taken to achieve the specified wet and dry film thicknesses. Uniform, even coats must be obtained.

Dry Time

Temperature:	<u>7°C/35°F</u>	<u>10°C/50°F</u>	<u>21°C/70°F</u>	<u>32°C/90°F</u>
To Touch:	8½ Hours	7½ Hours	2 Hours	1 Hour
To Recoat:	28 Hours	23 Hours	3½ Hours	1¼ Hours

Pot Life

Temperature:	<u>7°C/35°F</u>	<u>10°C/50°F</u>	<u>21°C/70°F</u>	<u>32°C/90°F</u>
	8 Hours	6 Hours	2½ Hours	1¼ Hours

Application Equipment

Conventional or airless spray, brush or roller. Certain colors may require two coats depending on method of application and color of the primer or intermediate coat.

Conventional Spray

Equipment Recommendations: Binks Model 62 Spray Gun or equivalent.

Fluid Nozzle	Air Nozzle	Atomizing Air Pressure (Measured at gun inlet)	Fluid Pressure
66 (.070")	66 SK	60 PSI	40 PSI

Notes: Airless atomization strongly recommended. Do not exceed pot life.

Low temperatures or longer hoses require higher pot pressure. Proper atomization is necessary to obtain a smooth finish.

Airless Spray

Equipment Recommendations: Binks Airless 1 Spray Gun or equivalent.

Airless Tip Orifice	Fluid Pressure	Binks Tip No.
.018" – .026"	2,500 – 3,000 PSI	9 – 1860/9 – 2680

Notes: Do not exceed pot life. Requires higher pressure pump.

CAUTION! Use 100 mesh manifold filter and gun with 100 mesh tip strainer. Use appropriate tip and atomizing pressure for equipment, applicator technique and weather conditions.

Roller

Use a ¼" nap synthetic cover. Do not use medium or long nap roller covers.

Clean Up Instructions

Clean all equipment immediately after use with Epoxy Thinner (M95). At the same time, flush out all fluid lines and carefully clean pressure pots. Use clean solvent only. It is also good practice to periodically clean the spray tip or the fluid tip/air cap combination during the course of the working day or shift.

M A T E R I A L S A F E T Y D A T A S H E E T Rev. 06B
 For Coating, Resins, and Related Materials NPCA 1-84
 Manufacturer's Name Emergency Telephone No.
 BENJAMIN MOORE & CO. 800-424-9300 (CHEMTREC)
 51 CHESTNUT RIDGE RD
 MONTVALE, NJ 07645
 Date Prepared Last Rev Date Information Telephone No.
 08-29-01 01-19-01 201-573-9600
 For the most up-to-date MSDS information
 please visit our website www.benjaminmoore.com/msds/go.html

 SECTION I - PRODUCT ID

PRODUCT+: M45L, nM45L ** HMIS CODE **
 CLASS: SOLVENT THINNED PAINT HEALTH: 2*
 NAME: EPOXY MASTIC COATING - LOW TEMPERATURE FLAMMABILITY: 3
 COLOR: ALL REACTIVITY: 1
 PERSONAL PROT:

** SARA TITLE 312 **

ACUTE: Y CHRONIC: Y FIRE: Y PRESSURE: N REACTIVITY: N
 For a complete description of HMIS and an explanation of the PERSONAL PROT:
 code, see Section XX.

*NOTE: In the PRODUCT code a little n can be any capital letter of the
 alphabet except P or Q.

 SECTION II HAZARDOUS INGREDIENTS

INGREDIENT								
HAZ	SARA	MAX %	CAS #	TLV	PEL	STEL	CEIL	MM Hg
Modified Amine								
Y	N	32.0	000000-00-0	N/E	N/E	N/E	N/E	N/A
Xylene								
Y	Y	5.6	001330-20-7	100 ppm	100 ppm	150 ppm	N/E	21 @ 38C
Ethyl Benzene								
Y	N	.9	000100-41-4	100 ppm	100 ppm	125 ppm	N/E	10 @ 20C
Stoddard Solvent								
Y	N	1.5	008052-41-3	100 ppm	100 ppm	N/E	N/E	2.0 @ 20
Titanium Dioxide								
Y	N	32.9	013463-67-7	10 mg/M3	10 mg/M3	N/E	N/E	N/A
Talc								
Y	N	53.3	014807-96-6	2 mg/M3	2 mg/M3	N/E	N/E	N/A
Silica, Crystalline								
Y	N	.1	014808-60-7	.1 mg/M3	.1 mg/M3	N/E	N/E	N/A
n-Butyl Alcohol								
Y	Y	6.2	000071-36-3	50 ppm	100 ppm	N/E	50 ppm	4.2 @ 20
C.I. Pigment Green 7								
Y	N	1.8	001328-53-6	1 mg/M3	1 mg/M3	N/E	N/E	N/A

Barium Sulfate
 Y N 17.0 007727-43-7 10 mg/M3 10 mg/M3 N/E N/E N/A

C.I. Pigment Black 7
 Y N .2 001333-86-4 3.5mg/M3 3.5mg/M3 N/E N/E N/A

 This product contains one or more reported carcinogens or suspected carcinogens which are noted NTP, IARC, or OSHA-Z in the other limits recommended column.

 Note: This product contains pigments which may become a dust nuisance when removed by abrasive blasting, sanding, or grinding.
 This product may contain small amounts of materials known to the State of California to cause cancer and reproductive harm.

 SECTION III PHYSICAL DATA

BOIL RANGE: 116.0 to 343.0 WT/GL: 12.5 to 14.6 %VOL/VOL: 23.8 to 26.6
 EVAPORATION RATE: SLOWER THAN ETHER VAPOR DENSITY: HEAVIER THAN AIR

 SECTION IV FIRE AND EXPLOSION HAZARD DATA

D.O.T. FLAMMABILITY CLASS.: FLAMMABLE FLASH POINT: 95 F PMCC
 LEL %: 0.6
 EXTINGUISHING MEDIA: FOAM CO2 DRY CHEMICAL WATER FOG
 UNUSUAL FIRE AND EXPLOSION HAZARDS:
 Toxic gases may form when product burns.
 Closed containers may burst if exposed to extreme heat or fire.
 SPECIAL FIRE FIGHTING PROCEDURES:
 Cool exposed containers with water. Use self-contained breathing apparatus.
 Do not use water stream on burning liquid. Use self-contained breathing apparatus.

 SECTION V HEALTH HAZARD DATA

IMPORTANT: Designed to be mixed with other components. The resulting material will have the hazards of all its components.
 EFFECTS OF OVEREXPOSURE - ACUTE:
 Inhalation - Harmful if inhaled. May affect the brain or nervous system causing dizziness, headache or nausea.
 Contact - Causes eye irritation.
 Contact - Causes skin irritation.
 Skin Absorption - Hazardous ingredients contained in this product have the capacity to be absorbed through the skin in sufficient quantities to cause systemic toxicity. See Safe Handling and Use Information (Section VIII).
 Ingestion - Irritation of the digestive tract and nervous system depression (drowsiness, dizziness, loss of coordination and fatigue). Aspiration Hazard - This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.
 EFFECTS OF OVEREXPOSURE - CHRONIC:
 Contains: Crystalline Silica which has been determined to be carcinogenic to humans (1) by IARC when in respirable form. Risk of cancer depends on duration and level of inhalation exposure to dust from sanding the dried paint or spray mist.
 IARC has classified Carbon Black as possibly carcinogenic for humans (2B).
 NOTICE: Reports have associated permanent brain and nervous system damage

with repeated, prolonged overexposure to solvents among persons engaged in the painting trade. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
IARC has classified Ethyl Benzene as possibly carcinogenic for humans (2B).
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:
None expected when used in accordance with Safe Handling and Use Information (Section VIII).
Inhalation statement: Sanding dust inhalation may cause lung damage.
PRIMARY ROUTE(S) OF ENTRY: DERMAL INHALATION INGESTION
EMERGENCY AND FIRST AID PROCEDURES :
Inhalation - Remove from hazard area, maintain breathing, call physician.
Skin Contact - Remove with soap and water.
Eye Contact - Flush immediately with large amounts of water. Call physician
Ingestion - Drink 1 or 2 glasses of water to dilute.
DO NOT induce vomiting. Call physician.

SECTION VI REACTIVITY DATA

STABILITY: STABLE under normal conditions
HAZARDOUS POLYMERIZATION WILL NOT OCCUR
HAZARDOUS DECOMPOSITION PRODUCTS:
Burning may produce carbon dioxide and carbon monoxide.
CONDITIONS TO AVOID: Elevated temperatures and build up of vapors
INCOMPATIBILITY (MATERIALS TO AVOID): None reasonably foreseeable.

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Remove all sources of ignition. Avoid breathing vapors. Use non-sparking tools to return materials to container. Absorb residue with Fullers earth.
WASTE DISPOSAL METHOD:
Conventional procedures in compliance with local, state and federal regulations. Do not incinerate sealed containers.

SECTION VIII SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION:
Wear a properly fitted vapor/particulate respirator approved by NIOSH for use with paints during application or sanding and until all vapors and spray mist are exhausted. In confined spaces or in situations where continuous spray operations are typical, or if proper respirator fit is not possible, wear a positive-pressure, supplied air respirator approved by NIOSH.
VENTILATION:
Adequate to maintain working atmosphere below T.L.V. and L.E.L. (See Sect. II for ingredient data and concentrations). Mechanical exhaust may be required in confined areas.
Discharge exhaust only in area away from ignition sources.
PROTECTIVE GLOVES: Solvent impermeable gloves are required.
EYE PROTECTION : Splash goggles or safety glasses with side shields.
OTHER PROTECTIVE EQUIPMENT: Clothing adequate to protect skin.
HYGIENIC PRACTICES:
Remove and wash clothing before reuse. Wash hands before eating, smoking or using the washroom.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Flammable - Keep away from heat, sparks and flames.

OTHER PRECAUTIONS :

Corrosive

Use only with adequate ventilation. Avoid prolonged contact with skin and breathing of vapor spray mist or sanding dust.

Close container after each use. Keep out of reach of children. Do not take internally.

SECTION XX

HMIS (Hazardous Materials Identification System) (R) NPCA
HMIS is a recognized workplace Hazard Communications System as required by OSHA (29 CFR 1910.1200). Information on establishing a compliant hazardous communication program using HMIS is available from:

American Labelmark Co., Inc., Labelmaster Division
5724 N. Pulaski Rd., Chicago, IL 60646
1-800-621-5808

The ratings assigned by Benjamin Moore & Co. are only suggested ratings; the contractor/employer has ultimate responsibility for HMIS rating where this system is used.

PERSONAL PROTECTION: This code is left blank on Benjamin Moore & Co. MSDS's as it depends on application technique and the workplace ventilation. Please read Sections II through IX of this MSDS before deciding on appropriate protective equipment and beginning work. There are codes available for this section which can be obtained from Labelmaster. This product contains at least one toxic chemical listed in Section II that is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372.

DISCLAIMER

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

NOTICE: Removal of old paint by sanding, scraping or other means may generate dust or fumes which contain lead. Exposure to lead dust or fumes may cause adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For additional information, contact the USEPA/Lead Information Hotline at 1-800-LEAD-FYI.



Material Safety Data Sheet

Revision Date: 22-Mar-2010

Revision Number: 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name SUPER SPEC HP DTM ALKYD SEMI-GLOSS
Product Code P24
Product Class SOLVENT THINNED PAINT
Color All

Manufacturer Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 201-573-9600
www.benjaminmoore.com

Emergency Telephone Number(s)
CHEMTREC: 800-424-9300

2. COMPOSITION INFORMATION ON COMPONENTS

Hazardous Components

Chemical Name	CAS-No	Weight % (max)
Hydrotreated heavy naphtha, petroleum	64742-48-9	25
Nepheline syenite	37244-96-5	25
Titanium dioxide	13463-67-7	25
Distillates, petroleum, hydrotreated light	64742-47-8	10
Zinc phosphate	7779-90-0	5
Stoddard solvent	8052-41-3	5
Carbon black	1333-86-4	5
Silica, amorphous	7631-86-9	5
Xylene	1330-20-7	5
Ethyl benzene	100-41-4	0.5
Cobalt bis(2-ethylhexanoate)	136-52-7	0.5

3. HAZARDS IDENTIFICATION

3. HAZARDS IDENTIFICATION

Emergency Overview

WARNING

Vapors may be irritating to eyes, nose, throat, and lungs. May cause skin irritation and/or dermatitis.
Combustible material.

Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded.

Appearance liquid

Odor petroleum distillate

OSHA Regulatory Status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Effects

Eyes

Contact with eyes may cause irritation.

Skin

May cause skin irritation and/or dermatitis.

Inhalation

High vapor / aerosol concentrations are irritating to the eyes, nose, throat and lungs and may cause headaches, dizziness, drowsiness, unconsciousness, and other central nervous system effects.

Ingestion

Ingestion may cause irritation to mucous membranes. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Chronic Effects

Avoid repeated exposure

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions None known

HMIS **Health:** 1* **Flammability:** 2 **Reactivity:** 0 **PPE:** -

HMIS Legend

0 - Minimal Hazard

1 - Slight Hazard

2 - Moderate Hazard

3 - Serious Hazard

4 - Severe Hazard

* - Chronic Hazard

X - Consult your supervisor or S.O.P. for "Special" handling instructions.

Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, Benjamin Moore & Co., has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

4. FIRST AID MEASURES

4. FIRST AID MEASURES

General Advice	If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. Call a physician immediately.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician.
Notes To Physician	Treat symptomatically
Protection Of First-Aiders	Use personal protective equipment

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Foam, dry powder or water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Protective Equipment And Precautions For Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific Hazards Arising From The Chemical	Combustible material. Closed containers may rupture if exposed to fire or extreme heat. Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.
Sensitivity To Mechanical Impact	No
Sensitivity To Static Discharge	Yes
Flash Point Data	
Flash Point (°F)	105.0
Flash Point (°C)	40.6
Flash Point Method	PMCC
Flammability Limits In Air	
Lower Explosion Limit	0.8
Upper Explosion Limit	5.6

NFPA **Health:** 1 **Flammability:** 2 **Instability:** 0 **Special:** Not Applicable

NFPA Legend

- 0 - Not Hazardous
- 1 - Slightly
- 2 - Moderate
- 3 - High
- 4 - Severe

The ratings assigned by Benjamin Moore & Co. are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Remove all sources of ignition.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
Methods For Clean-Up	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.
Other Information	None known

7. HANDLING AND STORAGE

Handling	Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist. Wear personal protective equipment. Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from open flames, hot surfaces and sources of ignition.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep in properly labeled containers. DANGER - Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed water-filled metal container.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits**Hazardous Components**

Chemical Name	ACGIH	OSHA
Hydrotreated heavy naphtha, petroleum	N/E	N/E
Nepheline syenite	N/E	5 mg/m ³ - TWA (nuisance dust)
Titanium dioxide	10 mg/m ³ - TWA	15 mg/m ³ - TWA total
Distillates, petroleum, hydrotreated light	N/E	N/E
Zinc phosphate	N/E	N/E
Stoddard solvent	100 ppm - TWA	2900 mg/m ³ - TWA 500 ppm - TWA

Carbon black	3.5 mg/m ³ - TWA	3.5 mg/m ³ - TWA
Silica, amorphous	N/E	- (80)/(% SiO ₂) mg/m ³ TWA 20 mppcf - TWA
Xylene	100 ppm - TWA 150 ppm - STEL	100 ppm - TWA 435 mg/m ³ - TWA
Ethyl benzene	100 ppm - TWA 125 ppm - STEL	100 ppm - TWA 435 mg/m ³ - TWA
Cobalt bis(2-ethylhexanoate)	N/E	N/E

Legend

ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits

OSHA - Occupational Safety & Health Administration Exposure Limits

N/E - Not Established

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment**Eye/Face Protection**

Safety glasses with side-shields.

Skin Protection

Long sleeved clothing. Protective gloves.

Respiratory Protection

In operations where exposure limits are exceeded, use a NIOSH approved respirator that has been selected by a technically qualified person for the specific work conditions. When spraying the product or applying in confined areas, wear a NIOSH approved respirator specified for paint spray or organic vapors.

Hygiene Measures

Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Odor	petroleum distillate
Density (lbs/gal)	9.0 - 10.8
Specific Gravity	1.07 - 1.30
pH	Not available
Viscosity (centistokes)	Not available
Evaporation Rate	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Wt. % Solids	60 - 75
Vol. % Solids	40 - 55
Wt. % Volatiles	25 - 40
Vol. % Volatiles	45 - 60
VOC Regulatory Limit (g/L)	< 400
Boiling Point (°F)	322
Boiling Point (°C)	161
Freezing Point (°F)	Not available
Freezing Point (°C)	Not available
Flash Point (°F)	105.0
Flash Point (°C)	40.6
Flash Point Method	PMCC
Upper Explosion Limit	5.6
Lower Explosion Limit	0.8

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions. Hazardous polymerisation does not occur.
Conditions To Avoid	Keep away from open flames, hot surfaces, static electricity and sources of ignition.
Incompatible Materials	Incompatible with strong acids and bases and strong oxidizing agents.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors.
Possibility Of Hazardous Reactions	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product

Repeated or prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

Component

Hydrotreated heavy naphtha, petroleum

LD50 Oral: > 5,000 mg/kg (Rat) vendor data

LD50 Dermal: > 3,000 mg/kg (Rabbit)

Nepheline syenite

Sensitization: No sensitizing effects known.

Titanium dioxide

LD50 Oral: > 24000 mg/kg (Rat)

LD50 Dermal: > 10000 mg/m² (Rabbit)

LC50 Inhalation (Dust): > 6.82 mg/L (Rat, 4 hr.)

Distillates, petroleum, hydrotreated light

LD50 Oral: > 5,000 mg/kg (Rat)

LD50 Dermal: > 3,000 mg/kg (Rabbit)

Stoddard solvent

LD50 Oral: > 5,000 mg/kg (Rat)

LD50 Dermal: > 3160 mg/kg (Rabbit)

LC50 Inhalation (Vapor): > 6.1 mg/L (Rat)

Carbon black

LD50 Oral: > 15400 mg/kg (Rat)

LD50 Dermal: > 3000 mg/kg (Rabbit)

Silica, amorphous

LD50 Oral: > 10000 mg/kg (Rat)
 LD50 Dermal: 2,000 mg/kg (Rabbit)
 LC50 Inhalation (Dust): > 2 mg/L

Xylene

LD50 Oral: 4300 mg/kg (Rat)
 LD50 Dermal: > 1700 mg/kg (Rabbit)
 LC50 Inhalation (Vapor): 5000 ppm (Rat, 4 hr.)
 Sensitization: No sensitizing effects known.

Ethyl benzene

LD50 Oral: 3500 mg/kg (Rat)
 LD50 Dermal: > 5000 mg/kg (Rabbit)
 LC50 Inhalation (Vapor): 55000 mg/m³ (Rat, 2 hr.)
 Sensitization: No sensitizing effects known.

Chronic Toxicity

Carcinogenicity

The information below indicates whether each agency has listed any ingredient as a carcinogen:

Chemical Name	ACGIH	IARC	NTP	OSHA Carcinogen
Titanium dioxide		2B - Possible Human Carcinogen		Listed
Carbon black		2B - Possible Human Carcinogen		Listed
Ethyl benzene	A3	2B - Possible Human Carcinogen		Listed
Cobalt bis(2-ethylhexanoate)		2B - Possible Human Carcinogen		

- Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."
- Cobalt and cobalt compounds are listed as possible human carcinogens by IARC (2B). However, there is inadequate evidence of the carcinogenicity of cobalt and cobalt compounds in humans.

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
 IARC - International Agency for Research on Cancer
 NTP - National Toxicity Program
 OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Product

Acute Toxicity to Fish

No information available

Acute Toxicity to Aquatic Invertebrates

No information available

Acute Toxicity to Aquatic Plants

No information available

Component

Acute Toxicity to Fish

Titanium dioxide

LC50: >1000 mg/L (Fathead Minnow - 96 hr.)

Xylene

LC50: 13.5 mg/L (Rainbow Trout - 96 hr.)

Ethyl benzene

LC50: 12.1 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic Invertebrates

Ethyl benzene

EC50: 1.8 mg/L (Daphnia magna - 48 hr.)

Acute Toxicity to Aquatic Plants

Ethyl benzene

EC50: 4.6 mg/L (Green algae (Scenedesmus subspicatus), 72 hrs.)

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	Paint
Hazard Class	3
UN-No	UN1263

14. TRANSPORT INFORMATION

Packing Group III

In the US this material may be reclassified as a Combustible Liquid and is not regulated in containers of less than 119 gallons (450 liters) via surface transportation (refer to 49CFR173.120(b)(2) for further information).

ICAO / IATA Contact Benjamin Moore & Co. for further information.

IMDG / IMO Contact Benjamin Moore & Co. for further information.

15. REGULATORY INFORMATION

International Inventories

United States TSCA Yes - All components are listed or exempt.
Canada DSL Yes - All components are listed or exempt.

Federal Regulations

SARA 311/312 hazardous categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight % (max)</u>
Xylene	1330-20-7	5
Ethyl benzene	100-41-4	0.5

This product may contain trace amounts of (other) SARA reportable chemicals. Contact Benjamin Moore & Co. for further information.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight % (max)</u>
Xylene	1330-20-7	5
Ethyl benzene	100-41-4	0.5
Cobalt bis(2-ethylhexanoate)	136-52-7	0.5

This product may contain trace amounts of (other) HAPs chemicals. Contact Benjamin Moore & Co. for further information.

State Regulations**California Proposition 65**

This product may contain small amounts of materials known to the state of California to cause cancer or reproductive harm.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Louisiana	Rhode Island
Titanium dioxide	X	X	X		X
Stoddard solvent	X	X	X		X
Carbon black	X	X	X		X
Silica, amorphous	X	X	X		
Xylene	X	X	X		X
Ethyl benzene	X	X	X		X

Legend

X - Listed

16. OTHER INFORMATION

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Prepared By Product Stewardship Department
Benjamin Moore & Co.
360 Route 206 - P.O. Box 4000
Flanders, NJ 07836
866-690-1961

Revision Date: 22-Mar-2010
Revision Summary Not available

Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

End of MSDS



BENJAMIN MOORE®

SUPER SPEC HP®

RUST CONVERTER COATING P82

Features

- Converts rust into inert iron complex
- Long term protection
- Reduces moisture vapor transmission through coating
- Low VOC content
- Safe to use
- Film forming coating
- Water thinned
- Fast dry
- Two step protection

Recommended For

- Equipment
- Structural steel
- Lawn furniture
- Decorative gates, posts and railings
- Machinery
- Surfaces not accessible for blast cleaning

General Description

This water thinned coating is a film forming material that chemically converts rust into a black inert non-corrosive iron complex. This coating provides two step protection in one application. First, it converts tightly adherent rust into a non-rusting black film. Second, it provides corrosion protection against new rust forming. For maximum performance, product should be top-coated. If not top-coated, leaching could occur if exposed to humidity or moisture.

Limitations

- Not for immersion service
- For Metal Substrates Only
- Do not return excess material back to original container
- Must allow 2-3 days dry time before top-coating with epoxies and urethanes
- For maximum protection, prime before top-coating.
- Caution should be taken when applying P 82 to non-rusted areas.
- Although it can be applied to areas that are not rusted, where the product does not convert if top coated with latex, bleeding may occur.
- In areas of high humidity, top-coating will reduce the risk of leaching.

Product Information

Labor Saving Features

- Reduces surface preparation — need to remove loose rust only.
- Fast dry — dry to touch 15 minutes, recoat 4 hours.
- Universal topcoats — recoat with any generic type coating.
- Two step protection in one application.
- Water thinned — safe to use and non-flammable.
- Easy to apply with brush or roller.

Colors: —Standard: P82-00

Certification:

Formulated with non-photochemically reactive solvents.

Does not contain any ozone-depleting substances, either Class I or Class II.

Available in all regulated areas, except South Coast

Technical Assistance

Available through your local authorized independent BENJAMIN MOORE® retailer. For the location of the retailer nearest you, call 1-800-826-2623, see www.benjaminmoore.com, or consult your local YellowPages.

Technical Data

Generic Type	Modified Latex	
Pigment Type	Select Inerts	
Volume Solids	51%	
Theoretical Coverage at Recommended Film Thickness	400 Sq. Ft. @ 2.0 Mils	
Film Thickness	— Wet	2.9 – 4.9 Mils
	— Dry	1.5 – 2.5 Mils
Dry Time	—To Touch	15 Minutes
	—To Handle	2 Hours
	—To Recoat (Latex or Alkyd)	4 Hours
	—To Recoat (Epoxy or Urethane)	3 Days
Dries By	Coalescence	
Dry Heat Resistance	260° F	
Viscosity	65 ± 5 KU	
Flash Point	>250° F	
Sheen/Gloss	10 @ 60	
Surface Temperature at application	— Min.	50° F
	— Max.	90° F
Surface must be dry and at least 5° above the dew point.		
Reduction	— Brush	not recommended
	— Roller	not recommended
	— Spray	Do not Spray
Clean Up Thinner	Clean Water	
Mixing Ratio	N/A	
Induction Time	N/A	
Pot Life @ 70° F	N/A	
Weight Per Gallon	10.2 lbs	
Storage Temperature	— Min.	50° F
	— Max.	90° F

Volatile Organic Compounds (VOC)
216 grams / Liter 1.8 LBS / Gallon

Super Spec HP® Rust Converter Coating (P82)

Surface Preparation

Remove all loose rust, scale, and deteriorated coating using hand or power tools. Remove all remaining dust, dirt, salt, and chemicals by washing using a solution of 1 part Super Spec HP® P83 Oil & Grease Emulsifier mixed with 6 parts water. Rinse thoroughly. All remaining rust & coatings must be tight adhering with tapered edges.

WARNING! If you scrape, sand or remove old paint, you may release lead dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH approved respirator to control lead exposure. Carefully clean up with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Application

Apply one coat only; this coating will dry to a black film in 15 minutes. For additional protection top coat with generic types of paint after three hours. For best results, use a Benjamin Moore® Professional custom-blended nylon/polyester bristle brush, or 1/4" nap synthetic roller cover; do not use medium or long nap roller covers.

IMPORTANT: Shake well before using. Do not use directly from can — Pour into separate container and dip brush into that container. Never put brush into this can or return unused product into this can; this would contaminate the remaining material rendering it ineffective.

Cleanup

Clean all equipment immediately after use with clean, fresh water.

USE COMPLETELY OR DISPOSE OF PROPERLY. Dry empty containers may be recycled in a can recycling program. **Local disposal requirements vary; consult your sanitation department or state-designated environmental agency on disposal options.**

Environmental, Health & Safety Information

Use only with adequate ventilation. Do not breathe spray mist or sanding dust. Ensure fresh air entry during application and drying. Avoid contact with eyes and prolonged or repeated contact with skin. Avoid exposure to dust and spray mist by wearing a NIOSH approved respirator during application, sanding and clean up. Follow respirator manufacturer's directions for respirator use. Close container after each use. Wash thoroughly after handling.

FIRST AID: In case of eye contact, flush with water for 15 minutes; for skin, wash with soap and water. If you experience difficulty breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

IN CASE OF SPILL — Absorb with inert material and dispose of as specified under "Clean Up".

**KEEP OUT OF REACH OF CHILDREN
PROTECT FROM FREEZING**

**Refer to Material Safety Data Sheet for
additional health and safety information.**

Benjamin Moore & Co., 101 Paragon Drive, Montvale, NJ 07645	Tel: (201) 573-9600 Fax: (201) 573-9046	www.benjaminmoore.com	M72 P82 US 12/09
BENJAMIN MOORE, SUPER SPEC HP and the triangle "M" symbol are registered trademarks, licensed to Benjamin Moore & Co.			© 2000, 2009 Benjamin Moore & Co. All rights reserved