Contract Routing Form

ROUTING: Urgent Rush

printed on: 05/24/2013

Contract between:

JOE DANIELS CONSTRUCTION CO. INC

and Dept. or Division:

Engineering Division

Name/Phone Number:

Project: FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT

AND CHAPEL

Contract No.: 7030

File No.: 29990

Enactment No.: RES-13-00398

Enactment Date: 05/22/2013

Dollar Amount: 143,785.00

(Please DATE before routing)

Signatures Required	Date Received	Date Signed
City Clerk	15-28-2013	5-28-2013 5-29-13MJk).
Director of Civil Rights	15-28-13	1 5-29-13Mb).
Risk Manager	1 5-29-13	15-30-13 KRB
Finance Director	5/30/13	5/30/13 of
City Attorney	777 5-30-13	
Mayor	5-30-13	15-30-13

Please return signed Contracts to the City Clerk's Office Room 103, City-County Building for filing.

Original + 2

Copies

05/24/2013 09:24:04 enamb - Paul Stauffer 266-4365

Grant / W Goal / Loan / Agrmt

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Common Council

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Members

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Details

Reports

Awarding Public

Works Contract No.

7030, Forest Hill

File #:

29990 Version: 1

Name:

Cemetery - Masonry

Repairs to the

Receiving Vault and

Chapel.

Type:

Resolution

Status:

Passed

File created:

4/30/2013

In control:

BOARD OF PUBLIC

WORKS

On agenda:

5/21/2013

Final action:

5/21/2013

Enactment date:

5/22/2013

Enactment #:

RES-13-00398

Title:

Awarding Public Works Contract No. 7030, Forest Hill Cemetery - Masonry Repairs to

the Receiving Vault and Chapel

Sponsors:

BOARD OF PUBLIC WORKS

Attachments:

1. Contract 7030.pdf

History (3)

Text

3 records	Group	Export				
Date	Ver.	Action By	Action	Result	Action Details	Watch
5/21/2013	1	COMMON COUNCIL	·		Not available	Not available
5/8/2013	1	BOARD OF PUBLIC WORKS			Not available	Not available
4/30/2013	1	Engineering Division	Refer		Action details	Not available

		:
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		:

CONTRACT NO. 7030

FOREST HILL CEMETERY - MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL

JOE DANIELS CONSTRUCTION CO., INC.

\$143,785.00

Acct. No. CB53-58401-810714-00-53W1573

Contingency 8%±

\$143,785.00

<u>11,505.00</u>

GRAND TOTAL

\$155,290.00

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Wisconsin Office of the Commissioner of Insurance Licensed Producer Search*

Wednesday, May 22, 2013

MCKENNA, PATRICK A MADISON WI

Year of Birth: 1959 Status: Active

License Number: 2349196

NPN**: 650765

Effective Date: 06-27-1996 Expiration Date: 04-30-2014

License Type: Resident Intermediary Indv

CE Compliance: 04-30-2014

Lines of Authority

Line o	f Authority	Residency	Effective Date	Status
Property		Resident	06-27-1996	Active
Casualty		Resident	06-27-1996	Active

Appointments and Terminations

	alification pe/Status	Effective Date	Termination Date	Termination Reason
ACE American	CAS/Active	06-23-1999		
Insurance Company	PROP/Active	06-23-1999		
ACE Fire	CAS/Inactive	06-23-1999	10-01-2002	Inadequate Production
Underwriters Insurance Company	PROP/Inactive	06-23-1999	10-01-2002	Inadequate Production
ACE Property and	CAS/Active	06-23-1999		
Casualty Insurance Company	PROP/Active	06-23-1999		
ACUITY, A Mutual	CAS/Active	08-14-2007		
Insurance Company	CAS/Inactive	07-30-1996	08-07-2007	Canceled
	PROP/Active	08-14-2007		
	PROP/Inactive	07-30-1996	08-07-2007	Canceled
Addison Insurance	CAS/Active	09-19-2007		
Company	PROP/Active	09-19-2007		
ALLIED Property and	CAS/Inactive	07-14-2003	04-07-2010	Canceled
Casualty Insurance Company	PROP/Inactive	07-14-2003	04-07-2010	Canceled
AMCO Insurance	CAS/Inactive	07-14-2003	04-07-2010	Canceled
Company	PROP/Inactive	07-14-2003	04-07-2010	Canceled
American and	CAS/Inactive	10-04-2000	02-10-2005	Canceled
Foreign Insurance Company	PROP/Inactive	10-04-2000	02-07-2005	Canceled

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American Casualty Company of Reading, Pennsylvania	CAS/Inactive PROP/Inactive	08-21-1996 08-21-1996	01-05-2006 01-05-2006	Canceled Canceled
American Economy Insurance Company	CAS/Active PROP/Active	02-10-1998 02-10-1998		
American Guarantee and Liability Insurance Company	CAS/Active PROP/Active	06-08-1999 06-08-1999		
American Insurance Company, The	CAS/Inactive PROP/Inactive	07-25-1996 07-25-1996	09-29-2005 09-29-2005	Inadequate Production Inadequate Production
American Manufacturers Mutual Insurance Company	CAS/Inactive PROP/Inactive	08-20-1996 08-20-1996	02-17-2005 02-17-2005	Canceled Canceled
American Motorists Insurance Company	CAS/Inactive PROP/Inactive	08-20-1996 08-20-1996	02-17-2005 02-17-2005	Canceled Canceled
American Protection Insurance Company	CAS/Inactive PROP/Inactive	08-20-1996 08-20-1996	02-02-2005 02-02-2005	Canceled Canceled
American States Insurance Company	CAS/Inactive	02-10-1998	11-20-2009	Vol. Surrender per Agent Rqst
	PROP/Inactive	02-10-1998	11-20-2009	Vol. Surrender per Agent Rqst
American Zurich Insurance Company	CAS/Active PROP/Active	06-08-1999 06-08-1999		
Arrowood Indemnity Company	CAS/Inactive	10-04-2000	08-28-2006	Vol. Surrender per Agent Rqst
	PROP/Inactive	10-04-2000	08-28-2006	Vol. Surrender per Agent Rqst
Artisan and Truckers Casualty Company	CAS/Inactive	01-15-2008	06-30-2008	Vol. Surrender per Agent Rqst
	PROP/Inactive	01-15-2008	06-30-2008	Vol. Surrender per Agent Rqst
Associated	CAS/Inactive	07-25-1996	09-29-2005	Inadequate Production
Indemnity Corporation	PROP/Inactive	07-25-1996	09-29-2005	Inadequate Production
Assurance Company of America	CAS/Inactive	09-09-1998	07-23-2012	Vol. Surrender per Agent Rqst
	PROP/Inactive	09-09-1998	07-23-2012	Vol. Surrender per Agent Rqst
Automobile Insurance Company	CAS/Inactive	06-14-2001	11-28-2005	Vol. Surrender per Agent Rqst
of Hartford, Connecticut, The	PROP/Inactive	06-14-2001	11-28-2005	Vol. Surrender per

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				Agent Rqst
AXIS Insurance	CAS/Inactive	07-25-1996	01-06-2005	Inadequate Production
Company	PROP/Inactive	07-25-1996	01-06-2005	Inadequate Production
Bankers Standard	CAS/Active	06-23-1999		•
Insurance Company	PROP/Active	06-23-1999		
Berkley Regional	CAS/Active	04-22-2005		
Insurance Company	PROP/Active	04-22-2005		
Bituminous Casualty	CAS/Active	06-30-2005		
Corporation	PROP/Active	06-30-2005		
Bituminous Fire and	CAS/Active	06-30-2005		
Marine Insurance	PROP/Active	06-30-2005		
Company	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Capitol Indemnity	CAS/Active	07-24-1996		
Corporation	PROP/Active	07-24-1996		
Charter Oak Fire	CAS/Active	09-26-2007		
Insurance Company, The	CAS/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
THE ASSOCIATION OF THE ASSOCIATI	CAS/Inactive	09-04-1996	11-28-2005	Vol. Surrender per
	,			Agent Rqst
	PROP/Active	09-26-2007		
	PROP/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
	PROP/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
Chubb Indemnity	CAS/Active	05-12-2008		
Insurance Company	CAS/Inactive	09-10-1996	12-26-2006	Canceled
	PROP/Active	05-12-2008		
	PROP/Inactive	09-10-1996	12-26-2006	Canceled
Chubb National	CAS/Active	05-12-2008		
Insurance Company	PROP/Active	05-12-2008		
Cincinnati Casualty	CAS/Active	08-17-2007		
Company, The	PROP/Active	08-17-2007		
Cincinnati Indemnity Company, The	CAS/Active PROP/Active	08-17-2007 08-17-2007		
Cincinnati Insurance	CAS/Active	08-17-2007		
Company, The	PROP/Active	08-17-2007		
Citizens Insurance	CAS/Inactive	12-18-1997	08-03-2005	Inadequate Production
Company of America	PROP/Inactive	12-18-1997	08-03-2005	Inadequate Production
Consolidated Insurance Company	CAS/Inactive	03-24-2000	11-20-2009	Vol. Surrender per Agent Rqst

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	PROP/Inactive	03-24-2000	11-20-2009	Vol. Surrender per Agent Rqst
Continental Casualty Company	CAS/Inactive PROP/Inactive	08-21-1996 08-21-1996	01-05-2006 01-05-2006	Canceled Canceled
Continental Insurance Company, The	CAS/Inactive PROP/Inactive	02-24-2006 02-24-2006	09-15-2008 09-15-2008	Canceled Canceled
Continental Western Insurance Company	CAS/Inactive PROP/Inactive	08-12-2005 08-12-2005	04-24-2009 04-24-2009	Canceled Canceled
Depositors Insurance Company	CAS/Inactive PROP/Inactive	07-14-2003 07-14-2003	04-07-2010 04-07-2010	Canceled Canceled
Donegal Mutual Insurance Company	CAS/Active PROP/Active	11-09-2012 11-09-2012		
Emcasco Insurance Company	CAS/Active PROP/Active	09-21-2007 09-21-2007		
Employers Insurance Company of Wausau	CAS/Inactive	07-18-2005	12-10-2007	Vol. Surrender per Agent Rqst
	CAS/Inactive PROP/Inactive	08-23-1996 07-18-2005	05-14-2003 12-10-2007	Inadequate Production Vol. Surrender per Agent Rqst
	PROP/Inactive	08-23-1996	05-14-2003	Inadequate Production
Employers Mutual Casualty Company	CAS/Active PROP/Active	09-21-2007 09-21-2007		
Executive Risk Indemnity Inc.	CAS/Active CAS/Inactive PROP/Active	05-12-2008 06-16-2000 05-12-2008	12-26-2006	Canceled
	PROP/Inactive	06-16-2000	12-26-2006	Canceled
Fairmont Insurance Company	CAS/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
	PROP/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
Fairmont Premier Insurance Company	CAS/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
	PROP/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
Farmington Casualty Company	CAS/Inactive	07-19-1996	11-20-2000	Vol. Surrender per Agent Rqst
	PROP/Inactive	07-19-1996	11-20-2000	Vol. Surrender per Agent Rqst
Federal Insurance Company	CAS/Active CAS/Inactive	05-12-2008 09-10-1996	12-26-2006	Canceled

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	PROP/Active PROP/Inactive	05-12-2008 09-10-1996	12-26-2006	Canceled
Fidelity and Deposit Company of Maryland	CAS/Active PROP/Active	07-23-1996 07-23-1996		
Fidelity and Guaranty Insurance	CAS/Inactive	08-02-1996	02-09-2007	Vol. Surrender per Agent Rqst
Company	PROP/Inactive	08-02-1996	02-09-2007	Vol. Surrender per Agent Rqst
Fidelity and Guaranty Insurance	CAS/Inactive	08-02-1996	02-09-2007	Vol. Surrender per Agent Rqst
Underwriters, Inc.	PROP/Inactive	08-02-1996	02-09-2007	Vol. Surrender per Agent Rqst
Fidelity National	CAS/Inactive	01-12-1999	02-21-2000	Inadequate Production
Property and Casualty Insurance Company	PROP/Inactive	01-12-1999	02-21-2000	Inadequate Production
Fireman's Fund	CAS/Inactive	07-25-1996	09-29-2005	Inadequate Production
Insurance Company	PROP/Inactive	07-25-1996	09-29-2005	Inadequate Production
Firemen's Insurance Company of Newark, New Jersey	CAS/Inactive PROP/Inactive	12-11-1996 12-11-1996	01-22-1999 01-22-1999	Inadequate Production Inadequate Production
First Liberty	CAS/Inactive	01-14-2002	12-27-2005	Vol. Surrender per
Insurance	CA3/Inactive	01-14-2002	12-27-2003	Agent Rqst
Corporation, The	PROP/Inactive	01-14-2002	12-27-2005	Vol. Surrender per Agent Rqst
First National Insurance Company	CAS/Inactive	07-24-1996	11-20-2009	Vol. Surrender per Agent Rqst
of America	PROP/Inactive	07-24-1996	11-20-2009	Vol. Surrender per Agent Rqst
General Casualty	CAS/Active	08-16-2007		
Company of Wisconsin	PROP/Active	08-16-2007		
General Insurance Company of America	CAS/Inactive	07-24-1996	11-20-2009	Vol. Surrender per Agent Rqst
	PROP/Inactive	07-24-1996	11-20-2009	Vol. Surrender per Agent Rqst
Globe Indemnity	CAS/Inactive	10-04-2000	02-07-2005	Canceled
Company	PROP/Inactive	10-04-2000	02-07-2005	Canceled
Great American	CAS/Inactive	07-26-1996	01-07-2002	Inadequate Production
Alliance Insurance Company	PROP/Inactive	07-26-1996	01-07-2002	Inadequate Production
Great American	CAS/Inactive	07-26-1996	01-07-2002	Inadequate Production

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Assurance Company	PROP/Inactive	07-26-1996	01-07-2002	Inadequate Production
Great American	CAS/Inactive	07-26-1996	01-07-2002	Inadequate Production
Insurance Company	PROP/Inactive	07-26-1996	01-07-2002	Inadequate Production
Great American	CAS/Inactive	07-26-1996	01-07-2002	Inadequate Production
Insurance Company of New York	PROP/Inactive	07-26-1996	01-07-2002	Inadequate Production
Great Northern	CAS/Active	05-12-2008		
Insurance Company	CAS/Inactive	09-10-1996	12-26-2006	Canceled
	PROP/Active	05-12-2008		
	PROP/Inactive	09-10-1996	12-26-2006	Canceled
Guarantee Company of North America USA, The	CAS/Active	07-28-1998		
Gulf Insurance	CAS/Inactive	09-10-1996	06-30-2005	Inadequate Production
Company	PROP/Inactive	09-10-1996	06-30-2005	Inadequate Production
Hanover Insurance	CAS/Inactive	12-18-1997	08-03-2005	Inadequate Production
Company, The	PROP/Inactive	12-18-1997	08-03-2005	Inadequate Production
Hartford Casualty	CAS/Inactive	04-26-2000	10-26-2009	Canceled
Insurance Company	PROP/Inactive	04-26-2000	10-26-2009	Canceled
Hartford Fire	CAS/Inactive	04-26-2000	10-26-2009	Canceled
Insurance Company	PROP/Inactive	04-26-2000	10-26-2009	Canceled
Hartford Insurance	CAS/Inactive	04-26-2000	10-31-2008	Canceled
Company of the Midwest	PROP/Inactive	04-26-2000	10-31-2008	Canceled
Hartford Steam	CAS/Inactive	05-12-1999	10-30-2008	Canceled
Boiler Inspection and Insurance Company, The	PROP/Inactive	05-12-1999	10-21-2008	Canceled
Hartford	CAS/Inactive	04-26-2000	10-31-2008	Canceled
Underwriters Insurance Company	PROP/Inactive	04-26-2000	10-31-2008	Canceled
Hawkeye-Security Insurance Company	CAS/Inactive	01-14-2003	11-20-2009	Vol. Surrender per Agent Rqst
	PROP/Inactive	01-14-2003	11-20-2009	Vol. Surrender per Agent Rqst
HDI-Gerling America	CAS/Active	09-08-2005		
Insurance Company	PROP/Active	09-08-2005		
HIH America Compensation &	CAS/Inactive	04-08-1999	05-11-2001	Company Defunct or Liquidation
Liability Insurance Company	PROP/Inactive	04-08-1999	05-11-2001	Company Defunct or Liquidation

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Indemnity Insurance Company of North	CAS/Inactive PROP/Inactive	06-23-1999 06-23-1999	10-01-2002 10-01-2002	Inadequate Production Inadequate Production
America				
Indiana Insurance Company	CAS/Inactive	03-24-2000	11-20-2009	Vol. Surrender per Agent Rqst
	PROP/Inactive	03-24-2000	11-20-2009	Vol. Surrender per Agent Rqst
Insurance Company	CAS/Active	06-23-1999		
of North America	PROP/Active	06-23-1999		
Liberty Mutual Fire Insurance Company	CAS/Inactive	03-13-2006	12-06-2007	Vol. Surrender per Agent Rqst
	CAS/Inactive	01-14-2002	12-27-2005	Vol. Surrender per Agent Rqst
	PROP/Inactive	03-13-2006	12-06-2007	Vol. Surrender per Agent Rqst
	PROP/Inactive	01-14-2002	12-27-2005	Vol. Surrender per Agent Rqst
Liberty Mutual Insurance Company	CAS/Inactive	01-14-2002	12-27-2005	Vol. Surrender per Agent Rqst
	PROP/Inactive	01-14-2002	12-27-2005	Vol. Surrender per Agent Rqst
LM Insurance Corporation	CAS/Inactive	01-14-2002	12-27-2005	Vol. Surrender per Agent Rqst
,	PROP/Inactive	01-14-2002	12-27-2005	Vol. Surrender per Agent Rqst
Lumbermens Mutual	CAS/Inactive	08-20-1996	02-17-2005	Canceled
Casualty Company	PROP/Inactive	08-20-1996	02-17-2005	Canceled
Maryland Casualty Company	CAS/Inactive	09-09-1998	07-23-2012	Vol. Surrender per Agent Rqst
	PROP/Inactive	09-09-1998	07-23-2012	Vol. Surrender per Agent Rqst
Massachusetts Bay	CAS/Inactive	12-18-1997	08-03-2005	Inadequate Production
Insurance Company	PROP/Inactive	12-18-1997	08-03-2005	Inadequate Production
Merchants Bonding	CAS/Active	08-20-2007		
Company (Mutual)	CAS/Inactive	07-19-1996	09-27-2005	Canceled
Merchants National Bonding, Inc.	CAS/Active	02-06-2013		
MetLife Insurance Company of Connecticut	CAS/Inactive	09-04-1996	04-21-2003	Inadequate Production
Middlesex Mutual Assurance Company	CAS/Inactive	03-08-2006	01-17-2011	Vol. Surrender per Agent Rqst
,	PROP/Inactive	03-08-2006	01-17-2011	Vol. Surrender per

				Agent Rqst
National Fire	CAS/Inactive	08-21-1996	01-05-2006	Canceled
Insurance Company of Hartford	PROP/Inactive	08-21-1996	01-05-2006	Canceled
National Surety	CAS/Inactive	07-25-1996	09-29-2005	Inadequate Production
Corporation	PROP/Inactive	07-25-1996	09-29-2005	Inadequate Production
Nationwide Affinity	CAS/Inactive	04-11-2005	04-07-2010	Canceled
Insurance Company of America	PROP/Inactive	04-11-2005	04-07-2010	Canceled
Nationwide Mutual	CAS/Inactive	07-14-2003	04-07-2010	Canceled
Insurance Company	PROP/Inactive	07-14-2003	04-07-2010	Canceled
Navigators Insurance	CAS/Inactive	02-19-2004	04-30-2008	Canceled
Company	PROP/Inactive	02-19-2004	04-30-2008	Canceled
Netherlands	CAS/Inactive	08-12-1996	11-20-2009	Vol. Surrender per Agent Rqst
Insurance Company, The	PROP/Inactive	08-12-1996	11-20-2009	Vol. Surrender per Agent Rast
No. 11. Am autom	CAC/A-tive	00 10 2000		3 1
North American Specialty Insurance	CAS/Active PROP/Active	09-18-2000 09-18-2000		
Company	PROP/ACTIVE	09-16-2000		
North River Insurance Company,	CAS/Inactive	12-23-1996	12-17-2009	Vol. Surrender per Agent Rqst
The	PROP/Inactive	12-23-1996	12-17-2009	Vol. Surrender per Agent Rqst
Northern Insurance Company of New	CAS/Inactive	09-09-1998	07-23-2012	Vol. Surrender per Agent Rqst
York	PROP/Inactive	09-09-1998	07-23-2012	Vol. Surrender per Agent Rqst
Northwestern National Casualty	CAS/Inactive	04-14-1999	02-28-2001	Vol. Surrender per Agent Rqst
Company	PROP/Inactive	04-14-1999	02-28-2001	Vol. Surrender per Agent Rqst
Old Republic	CAS/Active	08-07-2007		
Insurance Company	CAS/Inactive	08-02-1996	04-20-2005	Canceled
	PROP/Inactive	08-02-1996	04-20-2005	Canceled
Old Republic Surety	CAS/Active	08-07-2007		
Company	CAS/Inactive	08-07-2007	04-20-2005	Canceled
,	PROP/Inactive	08-02-1996	04-20-2005	Canceled
Pacific Employers	CAS/Active	06-23-1999		
Insurance Company	PROP/Active	06-23-1999		
Pacific Indemnity	CAS/Active	05-12-2008		

Company	CAS/Inactive	09-10-1996	12-26-2006	Canceled
	PROP/Active PROP/Inactive	05-12-2008 09-10-1996	12-26-2006	Canceled
Peerless Indemnity Insurance Company	CAS/Inactive	06-21-2004	11-20-2009	Vol. Surrender per Agent Rqst
,	PROP/Inactive	06-21-2004	11-20-2009	Vol. Surrender per Agent Rqst
Peerless Insurance Company	CAS/Inactive	08-12-1996	11-20-2009	Vol. Surrender per Agent Rqst
	PROP/Inactive	08-12-1996	11-20-2009	Vol. Surrender per Agent Rqst
Phoenix Insurance	CAS/Active	09-26-2007		
Company, The	CAS/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
	CAS/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
	PROP/Active	09-26-2007		
	PROP/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
	PROP/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
Platte River	CAS/Active	07-12-2005		
Insurance Company	PROP/Active	07-12-2005		
Progressive Classic Insurance Company	CAS/Inactive	07-18-2005	06-30-2008	Vol. Surrender per Agent Rqst
	PROP/Inactive	07-18-2005	06-30-2008	Vol. Surrender per Agent Rqst
Progressive Northern Insurance Company	CAS/Inactive	07-18-2005	06-30-2008	Vol. Surrender per Agent Rqst
	PROP/Inactive	07-18-2005	06-30-2008	Vol. Surrender per Agent Rqst
Property and	CAS/Inactive	07-05-2005	10-31-2008	Canceled
Casualty Insurance Company of Hartford	PROP/Inactive	07-05-2005	10-31-2008	Canceled
Regent Insurance Company	CAS/Active PROP/Active	08-16-2007 08-16-2007		
	·			
Royal Insurance Company of America	CAS/Inactive PROP/Inactive	10-04-2000 10-04-2000	02-08-2005 02-07-2005	Canceled Canceled
SAFECO Insurance Company of America	CAS/Inactive	07-24-1996	11-20-2009	Vol. Surrender per Agent Rqst
	PROP/Inactive	07-24-1996	11-20-2009	Vol. Surrender per Agent Rqst
SAFECO Insurance	CAS/Inactive	09-27-2008	11-20-2009	Vol. Surrender per

Company of Illinois				Agent Rqst
	PROP/Inactive	09-27-2008	11-20-2009	Vol. Surrender per
				Agent Rqst
Safeguard Insurance	CAS/Inactive	10-04-2000	02-10-2005	Canceled
Company	PROP/Inactive	10-04-2000	02-10-2005	Canceled
Seaboard Surety	CAS/Inactive	08-09-1996	12-05-2005	Inadequate Production
Company	PROP/Inactive	08-09-1996	12-05-2005	Inadequate Production
Security Insurance Company of Hartford	CAS/Inactive	03-11-2005	08-28-2006	Vol. Surrender per Agent Rqst
	PROP/Inactive	03-11-2005	08-28-2006	Vol. Surrender per Agent Rqst
Sheboygan Falls	CAS/Active	11-09-2012		
Insurance Company	PROP/Active	11-09-2012		
SOCIETY	CAS/Active	01-15-2010		
INSURANCE, a	CAS/Inactive	07-08-2005	11-14-2007	Canceled
mutual company	PROP/Active	01-15-2010		
	PROP/Inactive	07-08-2005	11-14-2007	Canceled
St. Paul Fire and Casualty Insurance	CAS/Inactive	09-10-1996	02-09-2007	Vol. Surrender per Agent Rqst
Company	PROP/Inactive	09-10-1996	02-09-2007	Vol. Surrender per Agent Rqst
St. Paul Fire and Marine Insurance	CAS/Inactive	09-10-1996	02-09-2007	Vol. Surrender per Agent Rqst
Company	PROP/Inactive	09-10-1996	02-09-2007	Vol. Surrender per Agent Rqst
St. Paul Guardian Insurance Company	CAS/Inactive	09-10-1996	02-09-2007	Vol. Surrender per Agent Rqst
	PROP/Inactive	09-10-1996	02-09-2007	Vol. Surrender per Agent Rqst
St. Paul Mercury Insurance Company	CAS/Inactive	09-10-1996	02-09-2007	Vol. Surrender per Agent Rqst
	PROP/Inactive	09-10-1996	02-09-2007	Vol. Surrender per Agent Rqst
St. Paul Protective Insurance Company	CAS/Inactive	11-04-1998	04-21-2003	Vol. Surrender per Agent Rqst
	PROP/Inactive	11-04-1998	04-21-2003	Vol. Surrender per Agent Rqst
Statewide Insurance	CAS/Inactive	07-18-1996	04-08-2002	Canceled
Company	PROP/Inactive	07-18-1996	04-08-2002	Canceled
TIG Insurance Company	CAS/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
/	PROP/Inactive	07-11-2000	09-26-2003	Vol. Surrender per

	1				
					Agent Rqst
	TIG Insurance Company of Texas	CAS/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
		PROP/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
	TIG Insurance Corporation of	CAS/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
	America	PROP/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
	Torus National Insurance Company	CAS/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
		PROP/Inactive	07-11-2000	09-26-2003	Vol. Surrender per Agent Rqst
	Transcontinental	CAS/Inactive	08-21-1996	01-05-2006	Canceled
	Insurance Company	PROP/Inactive	08-21-1996	01-05-2006	Canceled
	Transportation	CAS/Inactive	08-21-1996	01-05-2006	Canceled
	Insurance Company	PROP/Inactive	08-21-1996	01-05-2006	Canceled
	Travelers Casualty	CAS/Active	09-26-2007		
	and Surety Company	CAS/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
		CAS/Inactive	07-19-1996	11-28-2005	Vol. Surrender per Agent Rqst
***************************************		PROP/Active	09-26-2007		
		PROP/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
		PROP/Inactive	07-19-1996	11-28-2005	Vol. Surrender per Agent Rqst
	Travelers Casualty	CAS/Active	02-04-2008		
	and Surety Company of America	CAS/Inactive	07-19-1996	11-09-2007	Canceled
-	or / morred	PROP/Active	02-04-2008	11 00 2007	Concolod
***************************************		PROP/Inactive	07-19-1996	11-09-2007	Canceled
	Travelers Casualty Company of	CAS/Inactive	07-19-1996	11-20-2000	Vol. Surrender per Agent Rqst
-	Connecticut	PROP/Inactive	07-19-1996	11-20-2000	Vol. Surrender per Agent Rqst
	Travelers Casualty	CAS/Active	09-26-2007		
Name of Persons and Persons an	Insurance Company of America	CAS/Inactive	07-19-1996	11-22-2000	Vol. Surrender per Agent Rqst
-		PROP/Active	09-26-2007		V 1 0
CONTRACTOR DESCRIPTION OF THE PERSONS		PROP/Inactive	07-19-1996	11-22-2000	Vol. Surrender per Agent Rqst
AT SETTLEMENT OF THE SETTLEMENT CONTRACTOR OF THE SETTLEMENT OF TH	Travelers Commercial	CAS/Inactive	06-14-2001	11-28-2005	Vol. Surrender per Agent Rqst
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	Insurance Company	CAS/Inactive	07-19-1996	11-22-2000	Vol. Surrender per Agent Rqst
		PROP/Inactive	06-14-2001	11-28-2005	Vol. Surrender per Agent Rqst
		PROP/Inactive	07-19-1996	11-22-2000	Vol. Surrender per Agent Rqst
	Travelers Constitution State	CAS/Inactive	11-24-1998	12-11-2003	Vol. Surrender per Agent Rqst
	Insurance Company	PROP/Inactive	11-24-1998	12-11-2003	Vol. Surrender per Agent Rqst
	Travelers Home and Marine Insurance	CAS/Inactive	11-29-2005	12-29-2006	Vol. Surrender per Agent Rqst
	Company, The	PROP/Inactive	11-29-2005	12-29-2006	Vol. Surrender per Agent Rqst
	Travelers Indemnity	CAS/Active	09-26-2007		
	Company of America, The	CAS/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rast
		CAS/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
		PROP/Active	09-26-2007		
		PROP/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
		PROP/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
	Travelers Indemnity	CAS/Active	09-26-2007		
	Company of	CAS/Inactive	01-13-2006	12-29-2006	Vol. Surrender per
	Connecticut, The	CAS/ Mactive	01 13 2000	12 23 2000	Agent Rqst
		CAS/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
		PROP/Active	09-26-2007		
		PROP/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
		PROP/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
	Travelers Indemnity	CAS/Active	09-26-2007		
	Company, The	CAS/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
		CAS/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
-		PROP/Active	09-26-2007		
TATAL CANADA CAN		PROP/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
***************************************		PROP/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
	Travelers Property	CAS/Active	09-26-2007		
F					

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Casualty Company of America	CAS/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
	CAS/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
	PROP/Active	09-26-2007		
	PROP/Inactive	01-13-2006	12-29-2006	Vol. Surrender per Agent Rqst
	PROP/Inactive	09-04-1996	11-28-2005	Vol. Surrender per Agent Rqst
Travelers Property Casualty Insurance	CAS/Inactive	07-22-2005	11-28-2005	Vol. Surrender per Agent Rqst
Company	PROP/Inactive	07-22-2005	11-28-2005	Vol. Surrender per Agent Rqst
Trumbull Insurance	CAS/Inactive	07-05-2005	10-31-2008	Canceled
Company	PROP/Inactive	07-05-2005	10-31-2008	Canceled
Twin City Fire Insurance Company	CAS/Inactive PROP/Inactive	04-26-2000 04-26-2000	10-26-2009 10-26-2009	Canceled Canceled
Linkad Fina 0	CAC/Active	07-26-1996		
United Fire & Casualty Company	CAS/Active PROP/Active	07-26-1996		
United Pacific	CAS/Inactive	08-27-1996	02-13-2001	Company Merger
Insurance Company	PROP/Inactive	08-27-1996	02-13-2001	Company Merger
United States Fidelity and Guaranty	CAS/Inactive	08-02-1996	02-09-2007	Vol. Surrender per Agent Rqst
Company	PROP/Inactive	08-02-1996	02-09-2007	Vol. Surrender per Agent Rqst
United States Fire	CAS/Inactive	12-23-1996	03-08-2004	Canceled
Insurance Company	PROP/Inactive	12-23-1996	03-08-2004	Canceled
United Wisconsin Insurance Company	CAS/Active	03-14-2003		
USF&G Insurance	CAS/Inactive	08-02-1996	01-01-2001	Company Merger
Company of	PROP/Inactive	08-02-1996	01-01-2001	Company Merger
Wisconsin	TROTTINGENT	00 02 1550	02 02 2002	3011.pu, 7ge/
Valiant Insurance	CAS/Inactive	09-09-1998	12-05-2007	Canceled
Company	PROP/Inactive	09-09-1998	12-05-2007	Canceled
Valloy Forgs	CAS/Inactive	08-21-1996	01-05-2006	Canceled
Valley Forge Insurance Company	•		01-05-2006	Canceled
	PROP/Inactive	08-21-1996		
Venture Insurance	CAS/Inactive	07-08-2005	01-04-2006	Canceled
Company	PROP/Inactive	07-08-2005	01-04-2006	Canceled
Vigilant Insurance	CAS/Active	05-12-2008		
Company	CAS/Inactive	09-10-1996	12-26-2006	Canceled
	PROP/Active	05-12-2008		
	•			

•				
	PROP/Inactive	09-10-1996	12-26-2006	Canceled
Virginia Surety Company, Inc.	CAS/Inactive	01-28-1997	11-30-1998	Vol. Surrender per Agent Rqst
	PROP/Inactive	01-28-1997	11-30-1998	Vol. Surrender per Agent Rqst
Washington	CAS/Active	09-07-2001		
International Insurance Company	PROP/Active	09-07-2001		
Wausau Business Insurance Company	CAS/Inactive	07-18-2005	12-10-2007	Vol. Surrender per Agent Rqst
	CAS/Inactive	08-23-1996	05-14-2003	Inadequate Production
	PROP/Inactive	07-18-2005	12-10-2007	Vol. Surrender per Agent Rqst
	PROP/Inactive	08-23-1996	05-14-2003	Inadequate Production
Wausau General Insurance Company	CAS/Inactive	07-18-2005	12-10-2007	Vol. Surrender per Agent Rqst
	CAS/Inactive	08-23-1996	05-14-2003	Inadequate Production
	PROP/Inactive	07-18-2005	12-10-2007	Vol. Surrender per Agent Rqst
	PROP/Inactive	08-23-1996	05-14-2003	Inadequate Production
Wausau Underwriters Insurance Company	CAS/Inactive	07-18-2005	12-10-2007	Vol. Surrender per Agent Rqst
	CAS/Inactive	08-23-1996	05-14-2003	Inadequate Production
	PROP/Inactive	07-18-2005	12-10-2007	Vol. Surrender per Agent Rqst
	PROP/Inactive	08-23-1996	05-14-2003	Inadequate Production
West Bend Mutual	CAS/Active	03-13-2008		
Insurance Company	CAS/Inactive	07-08-2005	10-17-2007	Canceled
	PROP/Active	03-13-2008		
	PROP/Inactive	07-08-2005	10-17-2007	Canceled
Western Surety Company	CAS/Active	07-21-2003		
Zurich American	CAS/Active	06-08-1999		
Insurance Company	PROP/Active	06-08-1999		
Zurich American	CAS/Active	06-08-1999		
Insurance Company of Illinois	PROP/Active	06-08-1999		

^{*} Photocopies of this report provided to an insurer should be confirmed on-line for accuracy.

^{**} NPN = National Producer Number assigned by the National Insurance Producer Registry to assist with nonresident licensing in the future.

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BID OF _____ JOE DANIELS CONSTRUCTION

2013

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL

CONTRACT NO. 7030

IN

MADISON, DANE COUNTY, WISCONSIN

AWARDED BY THE COMMON COUNCIL MADISON, WISCONSIN ON MAY 21, 2013

> CITY ENGINEERING DIVISION 1600 EMIL STREET MADISON, WISCONSIN 53713

www.cityofmadison.com/business/pw

https://bidexpress.com/login

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This Proposal, and Agreement have been prepared by:

CITY ENGINEERING DIVISION
CITY OF MADISON
MADISON, DANE COUNTY, WISCONSIN

Robert F. Phillips, P.E., City Engineer

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SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS

REQUEST FOR BID FOR PUBLIC WORKS CONSTRUCTION CITY OF MADISON, WISCONSIN

A BEST VALUE CONTRACTING MUNICIPALITY

PROJECT NAME:	FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL
CONTRACT NO.:	7030
SBE GOAL	20%
BID BOND	5%
PRE BID MEETING (9:00 A.M.)	APRIL 19, 2013
PREQUALIFICATION APPLICATION DUE (1:00 P.M)	APRIL 19, 2013
BID SUBMISSION (1:00 P.M.)	APRIL 26, 2013
BID OPEN (1:30 P.M.)	APRIL 26, 2013
PUBLISHED IN WSJ	4/5/13, 4/12/13 & 4/19/13

PRE BID MEETING: Representatives of the Affirmative Action Department will be present to discuss the Small Business Enterprise requirements at 1600 Emil Street, Madison Wisconsin.

There will be an onsite pre-bid tour of the existing buildings on April 19th, at 9:00 a.m. to provide bidders the opportunity to acquaint themselves with the project requirements. A representative from the designer's office will be present to take questions that will be answered by addendum.

PREQUALIFICATION APPLICATION: Forms are available on our website, <u>www.cityofmadison.com/business/pw/forms.cfm</u>. If not currently prequalified in the categories listed in Section A, an amendment to your Prequalification will need to be submitted prior to the same due date. Postmark is not applicable.

<u>BIDS TO BE SUBMITTED</u> by hand to 1600 EMIL ST., MADISON, WI 53713 or online at <u>www.bidexpress.com</u>.

THE BID OPENING is at 1600 EMIL ST., MADISON, WI 53713.

Plans and Specifications are also available at 1600 Emil St., Madison, WI, 53713; (608) 267-1197.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2013 Edition, as supplemented and amended from time to time, forms a part of these contract documents as if attached hereto.

These standard specifications are available on the City of Madison Public Works website, www.cityofmadison.com/Business/PW/specs.cfm.

The Contractor shall review these Specifications prior to preparation of proposals for the work to be done under this contract, with specific attention to Article 102, "BIDDING REQUIREMENTS AND CONDITIONS" and Article 103, "AWARD AND EXECUTION OF THE CONTRACT." For the convenience of the bidder, below are highlights of three subsections of the specifications.

SECTION 102.1: PRE-QUALIFICATION OF BIDDERS

In accordance with Wisconsin State Statutes 66.0901 (2) and (3), all bidders must submit to the Board of Public Works proof of responsibility on forms furnished by the City. The City requires that all bidders be qualified on a biennial basis.

Bidders must present satisfactory evidence that they have been regularly engaged in the type of work specified herein and they are fully prepared with necessary capital, materials, machinery and supervisory personnel to conduct the work to be contracted for to the satisfaction of the City. All bidders must be pre-qualified by the Board of Public Works for the type of construction on which they are bidding prior to the opening of the bid.

In accordance with Section 39.02(9)(a)I. of the General Ordinances, all bidders shall submit in writing to the Affirmative Action Division Manager of the City of Madison, a Certificate of Compliance or an Affirmative Action Plan at the same time or prior to the submission of the proof of responsibility forms.

The bidder shall be disqualified if the bidder fails to or refuses to, prior to opening of the bid, submit a Certificate of compliance, Affirmative Action Plan or Affirmative Action Data Update, as applicable, as defined by Section 39.02 of the General Ordinances (entitled Affirmative Action) and as required by Section 102.11 of the Standard Specifications.

SECTION 102.4 PROPOSAL

No bid will be accepted that does not contain an adequate or reasonable price for each and every item named in the Schedule of Unit Prices.

A lump sum bid for the work in accordance with the plans and specifications is required. The lump sum bid must be the same as the total amounts bid for the various items and it shall be inserted in the space provided.

All papers bound with or attached to the proposal form are considered a part thereof and must not be detached or altered when the proposal is submitted. The plans, specifications and other documents designated in the proposal form will be considered a part of the proposal whether attached or not.

A proposal submitted by an individual shall be signed by the bidder or by a duly authorized agent. A proposal submitted by a partnership shall be signed by a member/partner or by a duly authorized agent thereof. A proposal submitted by a corporation shall be signed by an authorized officer or duly authorized registered agent of such corporation, and the proposal shall show the name of the State under the laws of which such corporation was chartered. The required signatures shall in all cases appear in the space provided thereof on the proposal.

Each proposal shall be placed, together with the proposal guaranty, in a sealed envelope, so marked as to indicate name of project, the contract number or option to which it applies, and the name and address of the Contractor or submitted electronically through Bid Express (www.bidexpress.com). Proposals will be accepted at the location, the time and the date designated in the advertisement. Proposals received after the time and date designated will be returned to the bidder unopened.

The Bidder shall execute the Disclosure of Ownership form. REFER TO SECTION F.

SECTION 102.5: BID DEPOSIT (PROPOSAL GUARANTY)

All bids, sealed or electronic, must be accompanied with a Bid Bond equal to at least 5% of the bid or a Certificate of Annual/Biennial Bid Bond or certified check, payable to the City Treasurer. Bid deposit of the successful bidders shall be returned within forty-eight (48) hours following execution of the contract and bond as required.

PREVAILING WAGE RATES

Prevailing Wage Rates may be required and are attached in Section J of the contract. See Special Provisions to determine applicability.

Bidders for this Contract(s) must be Pre-Qualified for at least one of the following type(s) of construction denoted by an \boxtimes

<u>Bui</u>	ldin	g Demolition			
101		Asbestos Removal	110		Building Demolition
120	Γ	House Mover			· ·
Stre	aet	Utility and Site Construction			
		Asphalt Paving	200		Cower Lateral Drain Cleaning/Internal TV Inch
201					
205		Blasting			
210	Ŀ	Boring/Pipe Jacking			Sewer Pipe Bursting
215	L	Concrete Paving	295		Soil Borings
220		Con. Sidewalk/Curb & Gutter/Misc. Flat Work	300		Soil Nailing
221		Concrete Bases and Other Concrete Work	305	П	Storm & Sanitary Sewer Laterals & Water Svc.
225		Dredging			Street Construction
230		Fencing			Street Lighting
235		Fiber Optic Cable/Conduit Installation			Tennis Court Resurfacing
240	L	Grading and Earthwork			Traffic Signals
241		Horizontal Saw Cutting of Sidewalk	325	Ш	Traffic Signing & Marking
242		Infrared Seamless Patching			
245		Landscaping, Maintenance			
250		Landscaping, Site and Street	332	П	Tree pruning/removal
251		Parking Ramp Maintenance			Tree, pesticide treatment of
255		Pavement Sealcoating and Crack Sealing			Trucking
			333	L1	Trucking
260		Petroleum Above/Below Ground Storank Tank Removal/Install		_	
265		Retaining Walls, Precast Modular Units	340	Ш	Utility Transmission Lines including Natural
270		Retaining Walls, Reinforced Concrete			Gas, Electrical & Communications
275		Sanitary, Storm Sewer and Water Main Construction			
		••	399	П	Other
Brid	an	Construction			
501	Ш	Bridge Construction and/or Repair			
D. 31	.11	O a made months in			
Bull		g Construction			
401		Floor Covering (including carpet, ceramic tile	435	\boxtimes	Masonry/Tuck pointing
		installation, rubber, VCT			Metals
402	П	Building Automation Systems			Painting and Wallcovering
403		Concrete			Plumbing
404		Doors and Windows			Pump Repair
405		Electrical - Power, Lighting & Communications			Pump Systems
410		Elevator - Lifts			Roofing and Moisture Protection
412		Fire Suppression	461		Solar Photovoltaic/Hot Water Systems
413		Furnishings - Furniture and Window Treatments	465		Soil/Groundwater Remediation
415		General Building Construction, Equal or Less than \$250,000	466	П	Warning Sirens
420		General Building Construction, \$250,000 to \$1,500,000			Water Supply Elevated Tanks
425		General Building Construction, Over \$1,500,000	475	H	Water Supply Wells
428		Glass and/or Glazing	480	Ш	Wood, Plastics & Composites - Structural &
429		Hazardous Material Removal			Architectural
430		Heating, Ventilating and Air Conditioning (HVAC)	499		Other
433		Insulation - Thermal			
State	e of	f Wisconsin Certifications			
1		Class 5 Blaster - Blasting Operations and Activities 2500 feet an	d close	er fo	inhabited buildings for quarries, open nits and
	ш	road cuts.	u 0.030	, (0	initiable a ballangs for quarties, open pits and
_	$\overline{}$				torong trouble for a g
2	Ш	Class 6 Blaster - Blasting Operations and Activities 2500 feet an			,
		excavations, basements, underwater demolition, underground ex			
3		Class 7 Blaster - Blasting Operations and Activities for structures	great	er th	an 15 ' in height, bridges, towers, and any of
		the objects or purposes listed as "Class 5 Blaster or Class 6 Blast	ster".		
4	П	Petroleum Above/Below Ground Storage Tank Removal and Insi		n (A	ttach copies of State Certifications)
5		Hazardous Material Removal (Contractor to be certified for asbe-			
5	ш	of Health Services, Asbestos and Lead Section (A&LS).) See the			
		www.dhs.wisconsin.gov/Asbestos/Cert. State of Wisconsin Perfo	rmanc	e of	Aspestos Abatement Certificate must be
		attached.			
6		Certification number as a Certified Arborist or Certified Tree Wor	ker as	adn	ninistered by the International Society of
		Arboriculture			•
7	П	Pesticide application (Certification for Commercial Applicator For	Hire v	vith 1	the certification in the category of turf and
•		landscape (3.0) and possess a current license issued by the DAT			and commodation in the satisfier of tall and
0	г	• • • • • • • • • • • • • • • • • • • •	01)		
8	님	Other			
9	Ll	Other			

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SECTION B: PROPOSAL

Please refer to the
Bid Express Website
at https://bidexpress.com
look up contract number
and go to
Section B: Proposal Page
(If bidding electronically)

Section B: Proposal Page

More

Item Code	Description	Quantity	Units	Fixed	Unit Price
	COMPLETE LUMP SUM BID (EXCEPT FOR ITEM 2)	1.0000	LUMP SUM BID	No	
2 .	REPLACEMENT OF STONE PER REHAB CODE G IN LIEU OF REHAB CODE F.	15.0000	EA	No	

GRAND TOTAL	\$	
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Section B: Proposal Item Note

Edit More

Note for Item 2

The contractor must fill out a Unit Price Bid and multiply the Unit Price Bid by the Estimated Quantities to obtain the Total Bid for the Item. These quantities are stated for the purpose of bidding the project and does not reflect the anticipated field conditions.

SECTION C: SMALL BUSINESS ENTERPRISE

Instructions to Bidders City of Madison SBE Program Information

2 Small Business Enterprise (SBE) Program Information

2.1 Policy and Goal

The City of Madison reaffirms its policy of nondiscrimination in the conduct of City business by maintaining a procurement process which remains open to all who have the potential and ability to sell goods and services to the City. It is the policy of the City of Madison to allow Small Business Enterprises (SBE) maximum feasible opportunity to participate in City of Madison contracting. The bidder acknowledges that its bid has been submitted in accordance with the SBE program and is for the public's protection and welfare.

Please refer to the "ADVERTISEMENT FOR BIDS" for the goal for the utilization of SBEs on this project. SBEs may participate as subcontractors, vendors and/or suppliers, which provide a commercially useful function. The dollar value for SBE suppliers or 'materials only' vendors shall be discounted to 60% for purposes of meeting SBE goals.

A bidder which achieves or exceeds the SBE goal will be in compliance with the SBE requirements of this project. In the event that the bidder is unable to achieve the SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Failure to either achieve the goal or demonstrate a good faith effort to do so will be grounds for the bidder being deemed a non-responsible contractor ineligible for award of this contract.

A bidder may count towards its attainment of the SBE goal only those expenditures to SBEs that perform a commercially useful function. For purposes of evaluating a bidder's responsiveness to the attainment of the SBE goal, the contract participation by an SBE is based on the percentage of the total base bid proposed by the Contractor. The total base bid price is inclusive of all addenda.

Work performed by an SBE firm in a particular transaction can be counted toward the goal only if it involves a commercially useful function. That is, in light of industry practices and other relevant considerations, does the SBE firm have a necessary and useful role in the transaction, of a kind for which there is a market outside the context of the SBE Program, or is the firm's role a superfluous step added in an attempt to obtain credit towards goals? If, in the judgment of the Affirmative Action Division, the SBE firm will not perform a commercially useful function in the transaction, no credit towards goals will be awarded.

The question of whether a firm is performing a commercially useful function is completely separate from the question of whether the firm is an eligible SBE. A firm is eligible if it meets the definitional criteria and ownership and control requirements, as set forth in the City of Madison's SBE Program.

If the City of Madison determines that the SBE firm is performing a commercially useful function, then the City of Madison must then decide what that function is. If the commercially useful function is that of an SBE vendor / supplier that regularly transacts business with the respective product, then the City of Madison will count 60% of the value of the product supplied toward SBE goals.

To be counted, the SBE vendor / supplier must be engaged in selling the product in question to the public. This is important in distinguishing an SBE vendor / supplier, which has a regular trade with a variety of customers, from a firm which performs supplier-like functions on an <u>ad hoc</u> basis or for only one or two contractors with whom it has a special relationship.

A supplier of bulk goods may qualify as an eligible SBE vendor / supplier if it either maintains an inventory or owns or operates distribution equipment. With respect to the distribution equipment; e.g., a fleet of trucks, the term "operates" is intended to cover a situation in which the supplier leases the equipment on a regular basis for its entire business. It is not intended to cover a situation in which the firm simply provides drivers for trucks owned or leased by another party; e.g., a prime contractor, or leases such a party's trucks on an <u>ad hoc</u> basis for a specific job.

If the commercially useful function being performed is not that of a qualified SBE vendor / supplier, but rather that of delivery of products, obtaining bonding or insurance, procurement of personnel, acting as a broker or manufacturer's representative in the procurement of supplies, facilities, or materials, etc., only the fees or commissions will apply towards the goal.

For example, a business that simply transfers title of a product from manufacturer to ultimate purchaser; e. g., a sales representative who re-invoices a steel product from the steel company to the Contractor, or a firm that puts a product into a container for delivery would not be considered a qualified SBE vendor / supplier. The Contractor would not receive credit based on a percentage of the cost of the product for working with such firms.

Concerning the use of services that help the Contractor obtain needed supplies, personnel, materials or equipment to perform a contract: only the fee received by the service provider will be counted toward the goal. For example, use of a SBE sales representative or distributor for a steel company, if performing a commercially useful function at all, would entitle the Contractor receiving the steel to count only the fee paid to the representative or distributor toward the goal. This provision would also govern fees for professional and other services obtained expressly and solely to perform work relating to a specific contract.

Concerning transportation or delivery services: if an SBE trucking company picks up a product from a manufacturer or a qualified vendor / supplier and delivers the product to the Contractor, the commercially useful function it is performing is not that of a supplier, but simply that of a transporter of goods. Unless the trucking company is itself the manufacturer or a qualified vendor / supplier in the product, credit cannot be given based on a percentage of the cost of the product. Rather, credit would be allowed for the cost of the transportation service.

The City is aware that the rule's language does not explicitly mention every kind of business that may contribute work on this project. In administering these programs, the City would, on a case-by-case basis, determine the appropriate counting formula to apply in a particular situation.

2.2 Contract Compliance

Questions concerning the SBE Program shall be directed to the Contract Compliance Officer of the City of Madison Department of Civil Rights, Affirmative Action Division, 210 Martin Luther King, Jr. Blvd., Room 523, Madison, WI 53703; telephone (608) 266-4910.

2.3 Certification of SBE by City of Madison

The Affirmative Action Division maintains a directory of SBEs which are currently certified as such by the City of Madison. Contact the Contract Compliance Officer as indicated in Section 2.2 to receive a copy of the SBE Directory or you may access the SBE Directory online at www.cityofmadison.com/dcr/aaTBDir.cfm.

All contractors, subcontractors, vendors and suppliers seeking SBE status must complete and submit the Targeted Business Certification Application to the City of Madison Affirmative Action Division by the time and date established for receipt of bids. A copy of the Targeted Business Certification Application is available by contacting the Contract Compliance Officer at the address and telephone indicated in Section 2.2 or you may Application access Certification online the Targeted Business Submittal of the Targeted Business www.cityofmadison.com/dcr/aaTBDir.cfm. Certification Application by the time specified does not guarantee that the applicant will be certified as a SBE eligible to be utilized towards meeting the SBE goal for this project.

2.4 Small Business Enterprise Compliance Report

2.4.1 Good Faith Efforts

Bidders shall take all necessary affirmative steps to assure that SBEs are utilized when possible and that the established SBE goal for this project is achieved. A contractor who self performs a portion of the work, and is pre-qualified to perform that category of work, may subcontract that portion of the work, but shall not be required to do so. When a bidder is unable to achieve the established SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Such a good faith effort should include the following:

- 2.4.1.1 Attendance at the pre-bid meeting.
- 2.4.1.2 Using the City of Madison's directory of certified SBEs to identify SBEs from which to solicit bids.
- 2.4.1.3 Assuring that SBEs are solicited whenever they are potential sources.
- 2.4.1.4 Referring prospective SBEs to the City of Madison Affirmative Action Division for certification.
- 2.4.1.5 Dividing total project requirements into smaller tasks and/or quantities, where economically feasible, to permit maximum feasible SBE participation.
- 2.4.1.6 Establishing delivery schedules, where requirements permit, which will encourage participation by SBEs.
- 2.4.1.7 Providing SBEs with specific information regarding the work to be performed.
- 2.4.1.8 Contacting SBEs in advance of the deadline to allow such businesses sufficient time to prepare a bid.
- 2.4.1.9 Utilizing the bid of a qualified and competent SBE when the bid of such a business is deemed reasonable (i.e. 5% above the lowest bidder), although not necessarily low.
- 2.4.1.10 Contacting SBEs which submit a bid, to inquire about the details of the bid and confirm that the scope of the work was interpreted as intended.

2.4.2 Reporting SBE Utilization and Good Faith Efforts

The Small Business Enterprise Compliance Report is to be submitted by the <u>bidder</u> with the bid: This report is due by the specified bid closing time and date. Bids submitted without a completed SBE Compliance Report as outlined below

shall be deemed non-responsible and the bidder ineligible for award of this contract.

- 2.4.2.1 If the Bidder <u>meets or exceeds</u> the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:
 - 2.4.2.1.1 Cover Page, Page C-7; and
 - 2.4.2.1.2 **Summary Sheet,** C-8.
- 2.4.2.2 If the bidder <u>does not meet</u> the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:
 - 2.4.2.2.1 **Cover Page,** Page C-7;
 - 2.4.2.2.2 Summary Sheet, C-8; and
 - 2.4.2.2.3 **SBE Contact Report,** C-9 and C-10. (A <u>separate</u> Contact Report must be completed for <u>each applicable</u> SBE which is <u>not</u> utilized.)

2.5 Appeal Procedure

A bidder which does not achieve the established goal and is deemed <u>non-responsible</u> for failure to demonstrate a good faith effort to achieve such goal and subsequently denied eligibility for award of contract may, within 72 hours of receiving such notification, appeal that decision to a special appeals committee composed of three (3) members of the Affirmative Action Commission, three (3) members of the Board of Public Works and a seventh member appointed by the Mayor. All appeals must be made in writing to the City Engineer and <u>received</u> within 72 hours of City of Madison's notice. Postmark not applicable.

2.6 SBE Requirements After Award of the Contract

The successful bidder shall identify SBE subcontractors, suppliers and vendors on the subcontractor list in accordance with the specifications. The Contractor shall submit a detailed explanation of any variances between the listing of SBE subcontractors, vendors and/or suppliers on the subcontractor list and the Contractor's SBE Compliance Report for SBE participation.

No change in SBE subcontractors, vendors and/or suppliers from those SBEs indicated in the SBE Compliance Report will be allowed without prior approval from the Engineer and the Affirmative Action Division. The contractor shall submit in writing to the City of Madison Affirmative Action Division a request to change any SBE citing specific reasons which necessitate such a change. The Affirmative Action Division will use a general test of reasonableness in approving or rejecting the contractor's request for change. If the request is approved, the Contractor will make every effort to utilize another SBE if available.

The City will monitor the project to ensure that the actual percentage commitment to SBE firms is carried out.

2.7 SBE Definition and Eligibility Guidelines

A Small Business Enterprise is a business concern awarded certification by the City of Madison. For the purposes of this program a Small Business Enterprise is defined as:

- A. An independent business operated under a single management. The business may not be a subsidiary of any other business and the stock or ownership may not be held by any individual or any business operating in the same or a similar field. In determining whether an entity qualifies as a SBE, the City shall consider all factors relevant to being an independent business including, but not limited to, the date the business was established, adequacy of its resources for the work in which it proposes to involve itself, the degree to which financial, equipment leasing and other relationships exist with other ineligible firms in the same or similar lines of work. SBE owner(s) shall enjoy the customary incidents of ownership and shall share in the risks and profits commensurate with their enjoyment interests, as demonstrated by an examination of the substance rather than form or arrangements that may be reflected in its ownership documents.
- B. A business that has averaged no more than \$4.0 million in annual gross receipts over the prior three year period and the principal owner(s) do not have a personal net worth in excess of \$1.32 million.

Firm and/or individuals that submit fraudulent documents/testimony may be barred from doing business with the City and/or forfeit existing contracts.

SBE certification is valid for one (1) year unless revoked.

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Small Business Enterprise Compliance Report

This information may be submitted electronically through Bid Express or submitted with bid in sealed envelope.

Cover Sheet

Prime Bidder Information	
Company:	
Address:	
Telephone Number:	Fax Number:
Contact Person/Title:	
Prime Bidder Certification	
I,Name	, of
Name	Little
	certify that the information
Company	
contained in this SBE Compliance Report is true	and correct to the best of my knowledge and belief.
Witness' Signature	Bidder's Signature
Date	

Small Business Enterprise Compliance Report

Summary Sheet

SBE Subcontractors Who Are NOT Suppliers

Name(s) of SBEs Utilized	Type of Work	% of Total Bid Amount
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
Subtotal SBE who are NOT suppliers:		%
SBE Subcontractors Who Are Suppliers		
Name(s) of SBEs Utilized	Type of Work	% of Total Bid Amount
		%
		%
		%
		%
	<u> </u>	%
		%
Subtotal Contractors who are suppliers:	% x 0.6 =	% (discounted to 60%)
Total Percentage of SBE Utilization:	%.	

Small Business Enterprise Compliance Report

SBE Contact Report

Submit <u>separate</u> copy of this form for <u>each</u> SBE which you are not able to utilize towards meeting the SBE goal for this project. Attach separate sheets if necessary.

SBE I	<u>nformation</u>
Comp	any:
Addre	ss:
Telepl	none Number:
Conta	ct Person/Title:
1.	Outline below all efforts to solicit a bid from the above SBE. Include date, means of contact, who from your company made this contact and the result.
2.	Describe the information provided to the aforementioned SBE regarding the scope of work for which he/she was to provide a bid.
	Is this the same scope of work on which the subcontractor you intend to utilize based his/her bid? Yes No
3.	Did this SBE submit a bid? ☐ Yes ☐ No
	_ _
1.	Is the General Contractor pre-qualified to self-perform this category of work?
	Yes No

5.		uresponded "Yes" to Question 3, please check the items below which apply and provide the ested detail. If you responded "No" to Question 3, please skip ahead to item 6 below.
		The SBE listed above is unavailable for work on this project for the following reasons Provide specific detail for this conclusion.
		The SBE listed above is unqualified for work on this project. Provide specific details for this conclusion.
		The SBE listed above provided a price that was unreasonable (i.e. more than 5% above the lowest bidder). Provide specific detail for this conclusion including the SBE's price and the price of the subcontractor you intend to utilize.
		A contract with the SBE listed above may constitute a breach of the bidder's collective bargaining agreements. Provide specific detail for this conclusion including, but not limited to, correspondence from the SBE indicating it will not sign a project labor agreement and/or correspondence from the applicable trade union indicating a project labor agreement will not be allowed at the time of project bidding.
		Other; please specify reason(s) other than listed above which made it impossible for you to utilize this SBE on this project.
6.	Descri	ibe any other good faith efforts:

SECTION D: SPECIAL PROVISIONS

FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL CONTRACT NO. 7030

It is the intent of these Special Provisions to set forth the final contractual intent as to the matter involved and shall prevail over the Standard Specifications and plans whenever in conflict therewith. In order that comparisons between the Special Provisions can be readily made, the numbering system for the Special Provisions is equivalent to that of the Specifications.

Whenever in these Specifications the term "Standard Specifications" appears, it shall be taken to refer to the City of Madison Standard Specifications for Public Works Construction and Supplements thereto.

SECTION 102.10: MINIMUM RATE OF WAGE SCALE

For this project, payment of prevailing wages (white sheet) is not required if either: a single trade accounts for 85% or more of the total labor costs of the project and the bid is less than \$48,000; or no single trade accounts for 85% or more of the total labor costs of the project and the bid is less than \$100,000. For bids not meeting either of these conditions, prevailing wages shall be required.

If required, the wages and benefits paid on the contract shall not be less than those specified in the Prevailing Wage Determination included with these contract documents for the following types of work:

\boxtimes	Building and Heavy Construction
	Sewer, Water, and Tunnel Construction
	Local Street and Miscellaneous Paving Operations
	Residential and Agricultural Construction

All bidders are notified that all labor employed on City contracts must be paid in accordance with the minimum rate of wage scale included in the Contract Documents.

For the information of the employees working on the project, a copy of the wage scale included in the contract documents and the provisions of Section 66.0903(8) of the Wisconsin Statutes shall be kept posted by the employer and in at least one conspicuous and easily accessible place at the site of the project.

The Contractor shall keep weekly payroll records setting forth the name, address, telephone number, classification, wage rate and fringe benefit package of each employee who worked on such City project and all other projects the employee worked in the same period, and the Contractor must keep records of the individual time each employee worked on the project and for each day of the project. Records shall include employee demographics or contractor can submit a one-time report of all employee demographics that can be matched up with weekly payrolls. Reports shall only include last four social security digits. Such records shall also set forth the total number of hours of overtime credited to each such employee for each day and week and the amount of overtime pay received in that week. Such records shall, in addition, set forth the full weekly wages earned by each such employee and the actual hourly wage paid to that employee. The Contractor shall submit payroll records to the Engineer every week for those periods when work is being done on the project. Said submittal shall be within twenty-one (21) calendar days of the end of the Contractor's weekly pay period.

The Contractor shall ensure that employees shall be paid unconditionally and shall receive the full amounts accrued at the time of payment, computed at rates not less than those stated in the City of Madison "Minimum Rate of Wage Scale" and that each employee's rate shall be determined by the work that is done within the trade or occupation classification which should be properly assigned to such employee. Questions regarding an employee's classification or rate of pay within that classification, shall be resolved by the practice that predominates in the industry and on which the trade or occupation rate/classification is based. Therefore, rate of pay, classification and work jurisdiction disputes shall be

resolved by relying upon practices established by collective bargaining agreements and guidelines used in such determinations by appropriate recognized trade unions operating within the City of Madison.

The Contractor shall agree that the normal rate of wage paid to the Contractor's employees on other projects shall not be reduced or otherwise diminished as a result of the requirement to pay no less than the minimum rate of wage scale on a City project. Mulcting of employees on City projects by contractors, such as by kickbacks or other such devices, is prohibited.

These contract provisions shall apply to all work performed on the contract by the Contractor with its own organization and with assistance of laborers under its immediate superintendency and to all work performed by piecework or by subcontract. No laborer, worker, or mechanic shall be employed directly upon the site of the work except on a wage basis, but this shall not be construed to prohibit the rental of equipment from individuals.

In the event of a refusal by the Contractor to submit payroll records as required by the contract, the City of Madison shall have the option to cancel this contract and request the Surety to perform or to re-let the balance of the work for bids, and in that event, to charge the Contractor for any loss which the City may incur thereby.

SECTION 102.12: BEST VALUE CONTRACTING

This Contract shall be considered a Best Value Contract if the Contractor's bid is equal to or greater than \$53,000 for a single trade contract; or equal to or greater than \$257,500 for a multi-trade contract pursuant to MGO 33.07(7).

SECTION 105.1: AUTHORITY OF THE ENGINEER

The Engineer shall resolve all questions which arise as to the quality and acceptability of materials furnished, work performed, manner of performance, rate of progress of the work, interpretation of the plans and Specifications, acceptable fulfillment of the contract, compensation, and disputes and mutual rights between Contractors under the Specifications. The Engineer shall determine the amount and quantity of work performed and materials furnished.

All decisions of the Engineer shall, when so requested, be rendered in writing. They shall be final and conclusive in all matters unless within ten (10) days after such decision the Contractor applies in writing to the Board of Public Works for a review of such decision.

Any change proposed by a Contractor in SBE subcontractors, vendors or suppliers from those SBEs indicated on the SBE Compliance Report must be approved by the Engineer and the City's Manager of the Affirmative Action Division (hereafter, AAD). When requested, such decision shall be rendered in writing. Such decisions shall be final and conclusive in all matters unless within ten (10) days after such decision the Contractor or the affected SBE applies in writing to the Board of Public Works for a review of such decision.

In the event the Engineer and the AAD disagree over the proper decision to be made regarding an SBE, the Mayor shall appoint a third person to resolve the disagreement, within 30 days of appointment. The decision thus rendered may be reviewed by the Board of Public Works upon request of the Contractor or the affected SBE as set forth in Sections 105.1 and 105.2 of the City's standard specifications.

SECTION 109.2 PROSECUTION OF THE WORK

The Contractor shall begin work on or before <u>JUNE 17th</u>, <u>2013</u>. The total time of completion for the contract shall be <u>NINETY</u> (90) CALENDAR DAYS.

Work shall begin only after the start work letter is received. If it is desirable to begin work before the above-mentioned date, the Contractor shall establish a mutually acceptable date with the Project Manager.

1	SECTION 01 00 02
2	GENERAL REQUIREMENTS
3	
4	DADT 4 OFNEDAL
5	PART 1 GENERAL
6	00005
7	SCOPE
8	The work under this section includes general rules for the project. Included are the following topics:
9	PART 1 – GENERAL
10	1. Scope of Work
11 12	Pre-Bid Information Commencement and Completion
13	Confinencement and completion Contacts
14	5. Qualifications of Bidder
15	6. Work by the City and City Furnished Equipment
16	7. Salvage Materials
17	8. Provisions for Future Work
18	9. Special Site Provisions
19	10. Alternates
20	11. General
21	12. Guarantees
22	13. Sustainable Construction Methods and Materials
23	14. Schedule of Operations
24	15. Documents
25	16. Quality Assurance
26	17. Codes and Permits
27	18. Submittals
28	19. Drawings and Specifications
29	20. Operation and Maintenance Data
30 31	 Safeguards – Existing Equipment, Underground Utilities and Artifacts Access Panels
32	23. Sleeves and Openings
33	24. Lose and Detachable Parts
34	25. Stairs, Scaffolds, Hoists, Elevators or Cranes
35	PART 2 - PRODUCTS
36	1. Specified Items – Substitutes
37	2. Approved Testing Laboratories
38	PART 3 - EXECUTION
39	1. Installation
40	2. General Installation Methods
41	3. Delivery, Handling and Storage of Materials
42	4. Demolition
43	5. Cutting, Patching and Painting
44	6. Excavation, Backfill, and Surface Restoration
45	7. Dewatering
46	8. Sealing and Firestopping
47	9. Cleaning
48	10. Continuity of Service and Shutdown 11. Project Meetings
49 50	11. Project Meetings 12. Temporary Construction
51	13. Identification
52	14. Lubrication
53	15. Punch List
54	16. Tests and Final Acceptance
55	17. Training and Demonstration
56	18. Fence
57	19. Roadway
58	20. Signs
59	
60	1. SCOPE OF WORK
61 62	Restoration of historic sandstone and limestone masonry. Rehabilitation of historic exterior doors and windows.
62	2. PRE-BID INFORMATION
σ_{J}	ALLINE WIND HAT CHARLETCHA

There will be a pre-bid tour of the existing building on <u>April 19, 2013 at 9:00 a.m.</u> to provide bidders the opportunity to acquaint themselves with the project. A representative from the designer's office will be present to take questions that will be answered by addendum.

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3. COMMENCEMENT AND COMPLETION

Please refer to Section 105.15, 109.7, and 110.5 of the Standard Specifications, which can be found here: http://www.cityofmadison.com/Business/PW/specs.cfm.

4. CONTACTS

The City's designee for architectural and engineering is: Stephen Mar-Pohl

Company: InSite Consulting Architects

Address: 115 E Main St., Suite 200, Madison WI 53703 Phone: Office: (608) 204-0825 Cell:(608) 513-1992

Email: steve@icsarc.com

The City's designee for project management: Paul Stauffer

Company: City of Madison

Address: Room 115, 210 Martin Luther King Jr. Blvd. Phone: Office: (608) 266-4668, Cell (608) 575-5270

Email: pstauffer@cityofmadison.com

The City's designee for the site contact/building owner is: Paul Stauffer

Company: City of Madison

Address: Room 115, 210 Martin Luther King Jr. Blvd. Phone: Office: (608) 266-4668, Cell (608) 575-5270

Email: pstauffer@cityofmadison.com

5. QUALIFICATIONS OF BIDDER

By submitting the bid, the bidder certifies as to meeting the following requirements:

Has completed one or more projects of at least 50% of the size or value of the division of work being bid and the type of work completed is similar to that being bid. If a greater magnitude of experience is deemed necessary, other than size or value of the work, such requirements will be described in the appropriate technical section of these specifications.

Has access to all necessary equipment and has organizational capacity and technical competence necessary to do the work properly and expeditiously.

Maintains a permanent place of business.

6. WORK BY THE CITY AND CITY FURNISHED EQUIPMENT

All asbestos removal. Existing building materials that may have hazardous content and are located within the work area (example: floor tile, ceiling tile, pipe insulation) shall be sampled, tested, and removed by the City. If any suspect hazardous building materials are found by the contractor during demolition or renovation work that have not been sampled and tested, work must stop and a certified hazardous material inspector must be contacted by the City to assess the situation. Inaccessible areas may exist within the facility.

The following work will be accomplished by the City or will be let under separate contracts and will not be included under this Contract:

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None

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7. SALVAGE MATERIALS

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No materials removed from this project shall be reused except as specifically noted below. All materials removed shall become the property of and shall be disposed of by the Contractor.

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The following material shall be removed from service and turned over to the City, at a site selected by the City, in the same condition as when it was removed; existing sandstone and limestone scheduled for replacement.

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8. PROVISIONS FOR FUTURE WORK

None

9. SPECIAL SITE CONDITIONS

Unless otherwise noted, construction operations shall be limited to the hours between 7:30 a.m. and 6:00 p.m., Mondays through Fridays, except for holidays. A request must be made to the City forty-eight hours in advance for approval of work days or hours other than those stated above. Compliance is required with the City of Madison Noise Ordinance. The noise ordinance limits construction work hours on Sunday from 10 a.m. to 7:00 p.m..

Limited site vehicle parking is available for Contractor's use. Two parking spaces may be provided for the contractor's use.

No permanently reserved on-site loading zone will be provided for Contractor's use. For loading and unloading, a vehicle-parking stall may occasionally be reserved for a short time duration (e.g. one day) if arranged in advance with the site contact.

No permanently reserved on-site space for a trash container will be provided. Occasionally a trash container may be brought in for a short duration (e.g. two to three days) if arranged in advance with the site contact.

Remainder of the building and site will be occupied during construction. Contractors shall take particular care to avoid disturbance and disruption to the existing building structure and to the ongoing activities of the occupants.

A temporary field office and temporary toilets are not required. The Contractor's labor force may use City facilities upon approval by the City. The Contractor shall maintain the toilets and other spaces provided by the City in clean and sanitary condition at all times.

10. ALTERNATES

11. GENERAL

The City of Madison Standard Publications for Public Works Construction – current Edition, as supplemented from time to time, forms a part of these contract documents as if attached hereto.

These Standard Specifications are available upon request form the City Engineer, City Engineering Division, Room 115, City County Building, 210 Martin Luther King Jr. Blvd., Madison, WI 53710. An electronic copy is available from the City Website http://www.cityofmadison.com/business/pw/specs.cfm. The Contractor shall review these specifications prior to preparation of proposal for the work to be done under this contract. Failure to do so does not relive the Contractor from meeting all requirements.

All articles in these General Requirements are applicable to all Divisions and Sections apply to each Division of these Specifications as fully as if repeated within that Division. The Conditions of the Contract, General and Supplementary General Conditions, and these General Requirements shall apply to the Contractor and engaged in this work. Items listed under Scope of Work for each Division of the Specifications are not necessarily all inclusive.

Portions of these specifications are of the abbreviated, simplified type and may include incomplete sentences. Omissions of words or phrases such as "the Contractor shall", "in conformity with", "shall be", "as noted on the drawings", "in accordance with details", are intentional. Omitted words or phrases shall be supplied by inference in the same manner, as they are when a note occurs on the drawings. Such terms as approved, reviewed, equal, as directed, as required, as permitted, acceptable, satisfactory mean by or to the City Engineer or designee.

These specifications and drawings are intended to include everything necessary to perform the entire work properly. Every item necessarily required might not be specifically mentioned or shown. Unless expressly stated, all systems and equipment shall be complete and operable. The words "furnish", "install", and "provide" shall mean the same in a sense that the Contractor shall furnish and install all the necessary materials, apparatus, and devices to complete the equipment and systems installation herein specified, except such parts as are specifically exempted herein. If an item is either called for in the specifications or shown on the plans, it shall be considered sufficient for the inclusion of said item in this contract. If a conflict exists within the Specifications or exists within the Drawings, the Contractor shall furnish the item, system, or workmanship, which is the highest quality, largest, largest quantity or most closely fits the City's intent. Materials and labor shall be new (unless noted or stated otherwise), first class, and workmanlike, and shall be subject at all times to the City's or designee's inspections, tests and approval from the commencement until the acceptance of the completed work. Whenever a particular manufacturer's product is named, it is intended to establish a level of quality and performance requirements unless more explicit restrictions are stated to apply. It must be understood that the details and drawings are diagrammatic. The Contractor shall verify all dimensions at the site and be responsible for their accuracy. If items are too large to fit into existing space Contractor shall provide smaller model of same type upon approval by The City at no cost to the City. All sizes as given are minimum except as noted. Prior to bidding bidder must visit site to become familiar and verify existing conditions. Failure to do so does not relieve the bidder from the responsibility to verify existing conditions, to point out errors in drawings or specifications or code violations.

Bidders shall bring inadequacies, omissions or conflicts to the City's attention at least ten (10) days before the date set for bid opening. Prompt clarification will be supplied to all bidders of record by addendum. Failure to request

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clarification or interpretation of the drawings and specifications will not relieve the successful Bidder of responsibility. Signing of the contract will be considered as implicitly denoting that the Contractor has thorough understanding of the scope of work and comprehension of the contract documents. The City is not responsible for verbal instructions.

Information pertaining to existing conditions that are described in the specifications or appear on the drawings is based on available records. While such data has been collected with reasonable care, there is no expressed or implied guarantee that conditions so indicated are entirely representative of those actually existing. This information is provided to inform the Contractor of known, existing conditions so that due diligence is taken by the Contractor to avoid damage. Where site observation or documents indicate existing underground utilities/services in close proximity (within four feet horizontally and/or four feet vertically) to necessary new construction work, the Contractor shall be responsible to test, probe or otherwise determine exact locations so as to prevent damage to such utilities/services.

It is expected that Contractors have access to their own cell phone for their own use. No additional telephone service will be provided.

The City will not furnish Watchpersons. The Contractor shall provide such precautionary measures, to include the furnishing of watchpersons if deemed necessary, to protect persons and property from damage or loss where the Contractor's work is involved.

The Contractor resumes responsibility for all work specified in this contract except for work explicitly noted as be done by the City or a Contractor separately hired by the City. The Contractor shall immediately inform the City of the name of the person(s) designated as Superintendent representing the Contractor at the site.

The Contractor shall take complete charge of the work under this contract and coordinate the work of all trades on the project. All Contractors shall work in cooperation with the Contractor and with each other, and fit their work into the structure as job conditions may demand. The City shall make all final decisions as to the right-of-way and run of pipe, ducts, etc., at prearranged meetings with responsible representatives of the Contractors involved. Contractor(s) shall coordinate the work with adjacent work with other Contractors prior to installation and shall cooperate with all other trades to facilitate the general progress of the work. The Contractor shall coordinate and schedule the work of all its subcontractors, and shall furnish all information required by them for proper scheduling and execution of the work. In the same manner, the Contractor shall coordinate the work with that of the City, and any other Contractor operating in the area, including reasonable adjustments of schedule in order to allow other Contractors or the City to do their work. Coordinate all work with other Contractors prior to installation. Any installed work that is not coordinated and that interferes with other Contractor's work shall be removed or relocated at the installing Contractor's expense.

Each trade shall afford all other trades every reasonable opportunity for the installation of their work and for the storage of their material. In no case will the Contractor(s) be permitted to exclude from the premises or work, any other Contractor or employees thereof, or interfere with any other Contractor in the executing or installation of their work. In case it is indicated which trade is responsible for which work, this is meant as a suggestion and it is the Contractor's responsibility in its contracts with subcontractors to clarify who ultimately will do the work. If conflicts arise between the Contractor and subcontractor about who is responsible for which work to be done it is the Contractor's responsibility to make sure the work gets done in time even if the dispute between Contractor and subcontractor gets settled later.

The City Engineer shall have the right to make final and binding decisions on disputes between the Contractor and any other subcontractor operating in the area regarding: (a) access to the site with work force, equipment, and/or materials to their work area or (b) their adjacent work areas.

The Contractor shall cooperate with other trades and City personnel in locating work in a proper manner. Should it be necessary to raise or lower or move longitudinally any part of the electrical or piping or ducting work to better fit the general installation, such work shall be done at no extra cost to the City, provided such decision is reached prior to actual installation. The Contractor shall check location of electrical outlets with respect to other installations before installing.

The Contractor shall provide and maintain in working order during the entire construction period, a minimum of three (3) fire extinguishers on each floor level, including basement of the building, and one (1) in temporary office. Extinguishers shall be nonfreezing type such as A-B-C rated dry chemical, of not less than 10-pound capacity each. In addition, any subcontractor who maintains an enclosed shed on the site shall provide and maintain, in an accessible location, one or more similar nonfreezing type fire extinguisher in each enclosed shed.

The area to be set aside for the work under this contract is shown on the drawings, and the Contractor shall confine the construction to the immediate area within the construction limits. The Contractor shall immediately upon entering the site for purpose of beginning work, locate general reference points and take such action as is necessary to prevent their destruction. The Contractor shall lay out its work and be responsible for all lines, elevations and measurements of the building and other work executed under its Contract. The Contractor must exercise proper precaution to verify dimensions on the drawings before laying out work and will be held responsible for any error resulting from failure to exercise such precaution. The Contractor shall verify grades, lines, levels, locations, and dimensions as shown on drawings and report any errors or inconsistencies to the City before commencing work. Starting of work by the Contractor shall imply acceptance of existing conditions. Confine all operations, equipment, apparatus and storage of materials, to the immediate area of work to the greatest possible extent. Contractor shall ascertain, observe and comply with all rules and regulations in effect on the project site, including but not limited to parking and traffic regulations, use of walks, security restrictions and hours of allowable ingress and egress. Any special traffic control during construction involving lane closures shall be in accordance with the federal standard, Manual of Uniform Traffic Control Devices.

Using datum, the lot lines and present levels have been established as shown on the drawings. Other grades, lines, levels and benchmarks, shall be established and maintained by the Contractor, who shall be responsible for them. As work progresses, the Contractor shall lay out on forms and floor, the locations of all partitions, walls and fix column centerlines as a guide to all trades. The Contractor shall make provision to preserve property line stakes, benchmarks, or datum point. If any are lost, displaced or disturbed through neglect of any Contractor, Contractor's agents or employees, the Contractor responsible shall pay the cost of restoration.

The City's payment and guarantee provisions and when and how the City will accept the work are listed in the Standard Specifications under Sections 105.15 and 110.5.

12. GUARANTEES

All work, material and equipment is guaranteed by the Contractor to be free of faults for at least one year or longer if specified elsewhere. This year begins from the date of final acceptance from the City, which is stated in the Standard Specifications under Section 105.16. The Contractor agrees to return to the project and commence work as directed upon notification by the City and will furnish at his own expense all necessary labor and material to make proper repairs or corrections made necessary by defective material or inferior workmanship furnished or performed under this contract. If a subcontractor is not complying, the Contractor is held responsible.

All corrections and repairs are to be made no more than 30 days after notification of the Contractor for equipment and material that is not critical to the operation of the building. Critical equipment and material, including but not limited to HVAC, roofing, electrical, elevator, shall be repaired or brought into temporary and safe working condition in less than 7 days and temporary alternatives have to be provided by the Contractor. If Contractor fails to do so the City reserves the right to perform the work himself or subcontract a different Contractor and charge the Contractor the full cost of the repair and correction and cost of any material, rental fee, labor and equipment to provide temporary relief and protection to enable safe operation of the building.

13. SUSTAINABLE CONSTRUCTION METHODS AND MATERIALS

All construction methods and materials shall meet these requirements unless specified differently elsewhere. Contractor is to provide all documentations, certifications and other material necessary to prove compliance to the City and third party certifiers.

Construction Activity Pollution Prevention:

 - Follow Requirements in Storm Water Pollution Prevention Plan (SWPPP) and Erosion and Sedimentation Control (ESC) Plan

Stabilize any relocated and moved soil with fast growing grasses and place mulch (hay, woodchips, straw) on it to cover and hold soil

Divert surface runoff from distributed areas into sediment basin or sediment traps with a mound of stabi-

lized soi

Construct posts with filter fabric media to remove sediment from stormwater leaving the site.

Site Development:

Follow requirements in site development plan and don't disturb areas beyond the marked areas

Construction Waste Management:

The contractor shall be responsible for meeting all the requirements of the Madison General Ordinance, Chapter 10, Section 10.185, Recycling and Reuse of Construction and Demolition Debris, for commercial buildings. The contractor shall be required to obtain the Certification and Audit of Compliance as required. In addition the contactor shall make all reasonable efforts to:

- Recycle all recyclable material. This includes any material for which there is a recycling facility in Wisconsin.
- Separate all waste material in plastic, metal, paper, acoustical tile, brick, concrete, clean wood, glass, gypsum drywall, carpet and insulation and provide designated on-site collection areas.
- Keep track of volume and weight of each material and track if it was recycled or disposed otherwise.
- Keep track of volume and weight of donated material and site reused on site
- Haul all recyclable material to recycling facility if one is available in the county at no cost to the City.

It is permissible to separate waste off-site by specialized recycling contractor. This contractor needs to be provide proof of recycling and needs to be WASTECAP certified as "Accredited Professional in Construction and Demolition Debris Recycling".

Indoor Air Quality:

Protect indoor air paths into buildings from construction dirt, dust and debris.

14. SCHEDULE OF OPERATIONS

Within 10 calendar days after the effective date of Start Work Letter, the Contractor shall provide schedule covering Contractor operations for the <u>duration of the project</u>.

Install work in phases to accommodate City's occupancy requirements.

 After the initial submittal, the Contractor shall update the schedule <u>weekly</u> by entering actual progress for the period and submit copies as part of the payment request.

15. DOCUMENTS

All electronic files used or created for this project become property of the City. All files have to be submitted to the City upon request and once each phase (design, construction) is completed. Only Microsoft Office, PDF, and AutoCAD version 2008 and lower documents are acceptable. All documents that once existed in Microsoft or AutoCAD version must be submitted in such. AutoCAD files have to be submitted in original drawing form for further use in future projects. Sheet-set files alone will not be sufficient. All AutoCAD files must be submitted as PDF in addition. The Contractor can use CAD files and other files necessary for this project upon request.

The City or designee will provide the Contractor with a suitable set of Contract Documents on which daily records of changes and deviations from contract shall be recorded. Dimensions and elevations on the record drawings shall locate all buried or concealed piping, conduit, or similar items.

The daily record of changes shall be the responsibility of Contractor's field superintendent. No arbitrary mark-ups will be permitted. During the first week of each month, the Contractor shall present, at the project site, the job copy showing variations and changes to date to the City for review.

During first week of each month, the Contractor shall present at the project site all changes to architectural/engineering plans for review. At completion of the project, the Contractor shall submit the marked-up record drawings to the City prior to final payment.

Contractor shall provide list with all equipment installed. This list shall contain, but not limited to, type, make and special product key and number.

16. QUALITY ASSURANCE

 Any installed material not meeting the specification requirements must be replaced with material that meets these specifications without additional cost to the City.

All products and materials used are to be new, undamaged, clean and in good condition. Existing products and materials are not to be reused unless specifically indicated.

Where equipment or accessories are used which differ in arrangement, configuration, dimensions, ratings, or engineering parameters from those indicated on the contract documents, the Contractor is responsible for all costs involved in integrating the equipment or accessories into the system and for obtaining the performance from the system into which these items are placed. This may include changes found necessary during the testing, adjusting, and balancing phase of the project.

Contractor shall assume the responsibility for the protection of all finished construction under the Contract and shall repair and restore any and all damage of finished work to its original state. Wheeling of any loads over any type of floor, either with or without plank protection, will be permitted only in rubber-tired wheelbarrows, buggies, trucks or dollies. Where structural concrete is also the finished surface, care must be taken to avoid marking or damaging those surfaces. All structures and equipment shall be constructed, installed and operated with guards, controls and other devices in place.

Contractor shall obtain complete data at the site and inspect surfaces that are to receive the Work before proceeding with fabricating, assembling, fitting or erecting any work under this contract. Contractor shall notify the City in writing in case of discrepancies between existing work and drawings, and of any defects in such surfaces that are to receive the Contractor's work. The City will evaluate the notice and direct what remedial action will be taken.

Starting of work implies acceptance of existing work or the work of others. Removal and replacement of work applied to defective surfaces, in order to correct defects, shall be done at the expense of the Contractor who applied work to defective surfaces.

- Provide, erect and maintain all required planking, barricades, guard rails, temporary walkways, etc., of sufficient size and strength necessary for protection of stored material and equipment; paved surfaces, walks, curbs, gutters and drives; streets adjacent to or within project area; adjoining property and all project work to prevent accidents to the public and the workmen at the job site.
- Notify adjacent property owners if their property interferes with the work so that arrangements for proper protection can be made.
- Provide and maintain proper shoring and bracing to prevent earth from caving or washing into the building excavation. Provide temporary protection around openings through floors and roofs, including elevator openings, stairwells, and edge of slabs.
- Provide and maintain proper shoring and bracing for existing underground utilities, sewers, etc., encountered during excavation work, to protect them from collapse or other type of damage until such time as they are to be removed, incorporated into the new work, or can be properly backfilled upon completion of new work
- Provide protection against rain, snow, wind, ice, storms, or heat to maintain all work, materials, apparatus, and fixtures, incorporated in the work or stored on the site, free from injury or damage. At the end of the day's work, cover all new work likely to be damaged. Remove snow and ice as necessary for safety and proper execution of the work.
- Protect the building and foundations from damage at all times from rain, ground water and back up from drains or sewers. Provide all equipment and enclosures as necessary to provide this protection.
- Damaged property shall be repaired or replaced in order to return it to its original condition. Damaged lawns shall be replaced with sod.
- Protect materials, work and equipment, not normally covered by above protection, until construction proceeds to a point where the general building protection of the area where located, dispenses with the necessity therefore. Protect work outside of the building lines such as trenches and open excavations, as specified above.
- Take all necessary precautions to protect the City's property as well as adjacent property, including trees, shrubs, buildings, sanitary and storm sewers, water piping, gas piping, electric conduit or cable, etc., from any and all damage which may result due to work on this project.
- Repair work outside of property line in accordance with the requirements of the authority having jurisdiction.
- Repair any work, damaged by failure to provide proper and adequate protection, to its original state to the satisfaction of the City or remove and replace with new work at the Contractor's expense.
- Protect trees indicated on the drawings to remain and trees in locations that would not interfere with new construction, from all damage. Do not injure trunks, branches, or roots of trees that are to remain. Do cutting and trimming only as approved and as directed by the City.
- The value of trees destroyed or damaged will be charged against the account of the Contractor responsible for the damage in an amount equal to the expense of replacing the trees with those of similar kind and size.

The contractor shall be fully responsible for inspecting the work of its suppliers, and subcontractors to assure that the work complies with the standards for materials and workmanship required by the contract documents.

The Contractor shall:

- Monitor quality control over subcontractors, suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of the quality specified in the contract documents.
- Comply fully with manufacturer's instructions, including each step in sequence.
- Request clarification from the City before proceeding with work when manufacturers' instructions or reference standards conflict with Subcontract Documents.
- Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or manufactures instructions require more precise workmanship.
- Ensure that work is performed by persons specializing in the specific trade and class of work required, and qualified to produce workmanship of specified quality.
- Secure products in place with positive anchorage devices designed and sized to withstand seismic, static and dynamic loading, vibration, physical distortion or disfigurement.

If reference standards or manufacturers' instructions contain provisions that would alter or are at variance with relationships between the parties to the contract set forth in the contract Documents, the provisions in the contract Documents shall take precedence.

Documents shall take precedence.

When required by individual Specification sections, Contractor shall provide the following services from a manufacturer's representative:

GENERAL REQUIREMENTS

- Review of Specifications and design and concurrence or suggestions for modification.
- Site observation of conditions of use and substrate.
- Observation of the installation work in progress and on completion.
- Start up, testing, and adjustment of equipment.

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Instruction to the City in operation and maintenance.

Provide written signed report by manufacturer's representative documenting services provided and any comments or recommendations.

The work will be inspected by City inspectors and/or independent inspection service personnel under coordination of the City. All work is subject to inspection and shall remain accessible and exposed until it has been inspected by the City. Any work covered up or made inaccessible before such inspection shall be uncovered and made accessible without additional expense to the City. The City can request inspection of delivered material to confirm meeting of standards and specifications. An installation under supervision of the City can be requested to check proper installation. Contractor is to grant access to all material and finished and unfinished work at any time upon request. At least 3 business days notice has to be given to the City prior to arrival of material and equipment to be inspected. This includes concrete, which will be sampled and tested by the City.

Inspection or testing performed by the City Engineer or his designee shall not relieve the Contractor from responsibility for performing his own quality control and for complying with the requirements of the contract Documents. The City will not be responsible for the Contractor's failure to carry out work in accordance with the contract Documents.

Cooperate and arrange meetings with City or designee (Cx). Fill out and submit all documents required by Cx. Commissioning checklists need to be filled out truthfully at the time indicated. This includes but is not limited to delivery checklist (at time of delivery), installation checklist (at time of installation) and start up checklist (at time of startup).

Commissioning involves among other things:

- Inspection of material arriving at site regarding right type, number and undamaged package and proper
- Inspection of installation
- Test of proper function
- Review of Training and submitted O&M material
- Test of proper function before end of warranty period

17. CODES AND PERMITS

Applicable provisions of Public Law, the Constitution and Laws and Statutes of the State of Wisconsin and the codes and regulations of the Department of Energy are hereby referred to and made a part of this contract and all work performed shall be in accordance with such laws, regulations and the latest edition or supplement or amendment thereto in effect at the time of submittal of bid shall be considered to be the issue in effect (unless shown otherwise) of all applicable codes including, but not limited to:

- Wisconsin Building Code 1.
- 2. Wisconsin Electrical Code
- Wisconsin Mechanical Code 3.
- 4. Wisconsin Plumbing Code
- Wisconsin Energy Code 41 5.
 - 6. Wisconsin Fire Code
 - 7. NFPA 70 National Electrical Code
 - General Services Administration 41 CFR Part 101-19 8.
 - Americans with Disabilities Act (ADA) 9.
 - 10. Energy Conservation Performance Standards,
 - Local Codes 11.

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Contractor is expected to know or to ascertain, in general and in detail, the requirements of all codes and ordinances, and all rulings and interpretations of code requirements being made by all authorities having jurisdiction over the work performed by them, applicable to the construction and operation of systems covered by this contract. Where codes or standard specifications other than those listed in this paragraph are referred to in the different Divisions of these specifications, it is understood that they apply as fully as if cited here. Where differences exist between codes affecting this work, the code affording the greatest protection to the City shall govern.

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Maintenance clearances shall be maintained around equipment as required by the Codes and Standards, and as recommended by the equipment manufacturers. The maintenance envelope and equipment access shall be kept clear of any obstruction. It is Contractor's responsibility to enforce these requirements with all the Contractors. The Contractor shall be responsible for correcting any infringement on this requirement at no cost to the City.

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All cost for items and procedures necessary to satisfy requirements of all applicable codes, ordinances and authorities, whether or not these are specifically covered by drawings or specifications. All cases of serious conflict or omission between the drawings, specifications, and codes shall be brought to the City's attention as herein before specified. The Contractor shall carry out work and complete construction as required by applicable codes and ordinances and in such a manner as to obtain approval of all authorities whose approval is required.

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Contractor is responsible for obtaining permits at its own cost including expenses for supporting documents. Deliver original permits to the City before work starts. Obtain and pay for all required installation inspections except those provided by the City. Deliver originals of these certificates to the City. Include copies of the certificates in the Operating and Maintenance Instructions. Contractor shall arrange all required inspections and correct all deficiencies at no cost to the City.

The Contractor must maintain all licenses required for the work performed and required by authorities. In addition all licenses and certificates required elsewhere have to be maintained. If a Contractor loses a license for whatever reason he must inform the City immediately after learning about that himself. The Contractor must submit proof of holding the license or certificate upon request.

18. SUBMITTALS Documents have to be submitted in electronic form (PDF) as described elsewhere in addition to hardcopies no

later than 3 business days after start work letter is issued. The City or designee will review, and process shop drawings and other required submittals with reasonable promptness. No delay will be allowed in the progress of the job attributable to Contractor's failure to supply submittals in time.

The Contractor shall submit three (3) prints of all shop drawings, submittal data consisting of brochures, catalogs, material lists, wiring diagrams, Material Safety Data Sheets (MSDS), samples, erection drawings, and equipment layouts for review by the City Engineer or his designee. General catalog sheets showing a series of the same device is not acceptable unless the specific model is clearly marked. Submittals shall be processed with such promptness as not to cause delay to the work or to that of any other Contractor. Each submittal shall be provided together with a transmittal letter or form. Each original transmittal shall be assigned a transmittal number. The number shall begin with the first initial of the name of the Contractor's firm followed by a serial number. The resubmittals shall indicate the same number with numerical suffix in sequence. Each transmittal shall itemize the enclosures and indicate the distribution of the transmittal and the enclosures. The following information shall be included on all submitted documents: Agency/Location/Address obtained, project number, building name, project name. Submittals shall be grouped to include complete submittals of related systems, products, and accessories in a single submittal. Mark dimensions and values in units to match those specified. Include wiring diagrams of electrically powered equipment.

Submit all original documents providing information regarding sustainability requirements including but not limited to recycled content, VOC, certified wood, disposal certificates and transportation distance. Contractor is required to prove that material and methods used meet all requirements specified elsewhere.

The City or designee will return the marked and stamped drawings together with transmittal letter or form to Contractor. If re-submittal is required, the City Engineer or designee will so note and Contractor shall make another submission for review after correction resolving the review comments on the prior submittals. The above procedure shall be repeated until the City Engineer or designee favorably reviews the submittal. The submittals must be approved before material is ordered and fabrication is authorized.

The City Engineer's or designee's favorable review of shop drawings and other submittals shall not relieve the Contractor of responsibility for deviations from drawings or specifications, unless the Contractor has in writing called the City Engineer's or designee's attention to such deviations at the time of submission, and the City Engineer or designee has acknowledged in writing such deviations; nor shall it relieve the Contractor from responsibility for errors of any sort in such drawings. If deviations, discrepancies, or conflicts between shop drawing submittals and the drawings and specifications are discovered either prior to or after the shop drawing submittals are reviewed by the City Engineer or designee, the drawings and specifications shall control and shall be followed. The Contractor shall be responsible for and shall check the correctness of all documents including those subcontractors prior to submitting them to the City for review.

The Contractor shall furnish prints of the favorably reviewed final shop drawings, erection drawings, equipment layouts and vendor data to subcontractors and suppliers for the proper coordination of their work. The Contractor shall keep one (1) complete set of the above documents at the job site for the use of the City.

After the completion of the project, and prior to final payment, submit:

- One (1) copy of the Waste Manifest Records to the The City, if required in accordance with "Safety and Environment" Requirements Article "HAZARDOUS SUBSTANCES".
- The original and one (1) copy of all guarantee/warranty documents.

19. DRAWINGS AND SPECIFICATIONS

Drawings indicate approximate locations of the various items. These items are shown approximately to scale and attempt to show how these items should be integrated with building construction. Locate all the various items onthe-job measurements in conformance with code and cooperation with other trades.

Before locating items, confer with the City as to desired location in the various areas. In no case items shall be located by scaling drawings. Contractor must relocate items and bear cost of redoing work or other trades' work necessitated by failure to comply with this requirement.

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If electrical items are to be relocated within 10 feet of location shown on drawings and Contractor is informed before work is begun on this portion of the job, the relocation shall be at Contractor's expense.

Drawings are schematic in nature and are not intended to show exact locations of conduit but rather to indicate distribution, circuitry, and control.

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Standard Specifications: Standard Specifications such as ANSI, AASHO, AWWA, AISC, Commercial Standards, Federal Specifications, NEMA, UL, and the like incorporated in the requirements by reference shall be those of the latest edition at time of receiving bids, unless otherwise specified. The manufacturers, producers and their agents of required materials shall have such specifications available for reference and are fully familiar with their requirements as pertains to their product or material.

13 14 15 Contract Drawings and Specifications on the Job: contract drawings shall be kept on the job by the Contractor shall include at least one copy of Drawings and Specifications, all approved shop and erection drawings and schedules, lists of materials and equipment, as-built drawings, addenda and bulletins, documents relevant to the work. The list of Subcontract drawings is attached to these Specifications.

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Maintain a complete, precise, accurate dimensioned record of actual locations of the work, including concealed and embedded work, size and type of equipment, and every change or deviation from original contract drawings at the site. Keep this record legible and correct weekly as the job progresses on black or blue-line prints. Keep Record Drawings available for inspection at all times. Drawings will be inspected before approval of requests for pay-

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It shall be the responsibility of the Contractor to submit to the City within ten (10) days after final inspection, one complete marked-up set of contract drawings fully illustrating all revisions made by all the crafts in the course of the work. This shall include all field changes, adjustments, variances, substitutions and deletions, whether covered by Change Order or not. Underground utility installations must be located precisely as constructed on the marked-up drawings.

The Contractor shall not take advantage of any apparent error or omission in the plans or specifications, and the City shall be permitted to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specifications.

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In addition to verifying at the site all measurements shown on the Drawings, Contractor shall consult the Drawings and Specifications of related work or existing construction that may in any manner affect the work of this contract. Contractor shall promptly report to the City, in writing, any errors, omissions, violations, or inconsistencies that may be discovered as a result of such verifications; otherwise, it shall be understood that Contractor accepts all such related data and conditions without reservations.

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Layout of existing facilities are shown as exactly as could be determined during design of the facilities; but their accuracy, particularly when such layouts and drawings are schematic, cannot be guaranteed. Contractor shall check all Specifications including the Drawings for possible interference with electrical, mechanical, and structural details, as well as interference with existing building or equipment, and shall notify the City of the interference for resolution of the interference before commencing work. Any completed work that interferes shall be corrected by Contractor at Contractor expense so that the original design can be followed.

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20. OPERATION AND MAINTENANCE DATA

Submit data bound in 8-1/2 x 11 inch (A4) text pages, Use three D side rings if necessary and binders with durable plastic covers. Submit all documents in electronic form as well as in hardcopy. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project and subject matter of binder when multiple binders are required.

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Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, typed

on 20-pound white paper, in three parts as follows:

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- Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, subcontractors, and major equipment suppliers.

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- Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify the following:

1. Significant design criteria.

List of equipment (including assigned equipment numbers).

A description of recommended replacement parts and materials, which the City should stock.

Parts list for each component.

- 5. A summary of equipment vendors, or location where replacement parts can be purchased.
- 6. List indicating types and grades of oil and/or grease, packing materials, normal and abnormal tolerances for devices, and method of equipment adjustment.

- 7. Copies of all approved submittals.
- 8. Operating instructions.

- 9. Maintenance instructions for equipment and systems, Preventive maintenance recommendations.
- 10. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
- 11. Manufacturer's wiring diagrams for electrically powered equipment.
- 12. A complete set of record control drawings.
- 13. Additional information as indicated in the technical specification sections
- Part 3: Project documents and certificates, including the following:
 - Product data.
 - 2. Air and water balance reports.
 - 3. Certificates.
 - 4. Photocopies of warranties.
 - Name, address, and telephone number of the person or office to contact for service during the warranty period.
 - 6. Name, address, and telephone number of the person or service organization to be contacted for service after the warranty period.

Submit 1 draft copy of completed volumes 15 [fifteen] days after approval of applicable submittal or receipt of the product. Revise content of all document sets as required prior to final submission. Submit 2 [two] sets of revised final volumes, within 10 [ten] days after final inspection.

21. SAFEGUARDS - EXISTING EQUIPMENT, UNDERGROUND UTILITIES AND ARTIFACTS

Existing utilities, including those listed as abandoned, shall not be moved or otherwise disturbed without written verification by the City that the utility is abandoned.

When altering existing facilities, the Contractor shall take every precaution to preserve and protect existing facilities, both those to be altered and those to remain unaltered that are within the limits of the work.

The Contractor shall notify the City of structural members, piping, conduit, or equipment not indicated for removal that may cause interference with the work. Work shall not proceed in the affected area until instructions have been issued. Do not drill or penetrate existing structures without prior permission. The removal of existing work shall be by methods that will not jeopardize the integrity of structures or systems that are to remain.

Existing utilities, including but not limited to roof drainage systems, underground cables, ducts, roadways, manholes, building fire alarm, public address or telecommunications wiring shall not be moved or otherwise disturbed, nor electrical circuits or switches operated or taken in or out of service, without prior consent of the City. Contractor shall compensate loss to the City resulting from damage to utilities.

If bones or artifacts are encountered during digging, the City requires that the Contractor stop work within a 50-foot radius of the find and immediately notify the City. Work may continue only with approval from the City.

22. ACCESS PANELS AND DOORS

Not applicable.

23. SLEEVES AND OPENINGS

The Contractor requiring sleeved openings shall furnish and install all sleeves required for their penetrations. Contractors furnishing sleeves to others for installation shall do this in a timely manner so as not to impede the project schedule.

Openings that are required and are not shown on the structural and/or architectural drawings shall be the responsibility of the Contractor requiring the openings. The Contractor shall install sleeves for these openings or cut openings as needed (including floor openings within chases).

The Contractor shall be responsible for coordinating locations of their sleeves with work of other trades. The Contractor who requires sleeves and/or openings shall submit through the Contractor, to the City for review and approval, layout drawings of all such required sleeves and/or openings. Sleeve and opening layout drawings shall be received by the City a minimum of two weeks prior to installation of the sleeves and openings. Sleeve and opening sizes and locations shall be dimensioned from column lines and floor elevations or from a point of reference approved by the City.

Provide galvanized sheet metal sleeves for pipe and conduit penetrations through interior and exterior walls to provide a backing for sealant or firestopping. Patch wall around sleeve to match adjacent wall construction and finish.

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Grout area around sleeve in masonry construction. In finished spaces where pipe penetration through wall is exposed to view, sheet metal sleeve shall be installed flush with face of wall. Pipe sleeves in new poured concrete construction shall be schedule 40 steel pipe (sized to allow insulated pipe to run through sleeve), cast in place.

In all piping floor penetrations, fire rated and non-fire rated, top of sleeve shall extend 2 inches above the adjacent finished floor, In existing floor penetrations, core drill sleeve opening large enough to insert schedule 40 sleeve and grout area around sleeve with hydraulic setting, non-shrink grout. If the pipe penetrating the sleeve is supported by a pipe clamp resting on the sleeve, weld a collar or struts to the sleeve that will transfer weight to existing floor structure.

For floor penetrations through existing floors in mechanical, food service areas, parking ramps, sanitary pumping stations, swimming pool equipment rooms, chemical storage and hazardous waste storage rooms and other wet locations or locations that can get wet by accident or failure of a component, core drill opening and provide a sleeve fastened to floor surrounding the penetration or group of penetrations to prevent water from entering the penetration. Top of sleeve shall be 4 inches above the adjacent floor. Provide urethane caulk between angles and floor and fasten angles to floor a minimum of 8" on center. Seal corners water tight with urethane caulk. Or, core drill sleeve openings large enough to insert schedule 40 sleeve and grout area around sleeve with hydraulic setting non-shrink grout/cement. Size sleeve to allow insulated pipe to pass through sleeve and paint the sleeve.

Pipe sleeves for conduits 6" in diameter and smaller, in new poured concrete construction, shall be schedule 40 steel pipe, plastic removable sleeve or sheet metal sleeve, all cast in place.

24. LOOSE AND DETACHABLE PARTS

Contractor shall retain all loose and small detachable parts of apparatus and equipment furnished under this Contract, until completion of the work and shall turn them over to the City to receive them.

Furnish one can of touch-up paint for each different color factory finish furnished by the Contractor. Deliver touchup paint with other "loose and detachable parts".

25. STAIRS, SCAFFOLDS, HOISTS, ELEVATORS OR CRANES

The Contractor shall furnish and maintain equipment such as temporary stairs, fixed ladders, ramps, chutes, runways and the like as required for proper execution of work by all trades, and shall remove them on completion of the work. The Contractor shall erect permanent stair framing as soon as possible. Provide stairs with temporary treads, handrails, and shaft protection. Contractors requiring scaffolds shall make arrangements with the Contractor, or shall provide their own and remove them on completion of the work. The Contractor shall underlay its interior scaffolds with planking to prevent uprights from resting directly on the floor construction.

Contractor shall provide and pay for its own hoist/crane or other apparatus necessary for unloading/setting or moving their equipment and materials. Installation and removal of equipment for this activity must be accounted for in the Project Schedule. Equipment and operations for this activity shall comply with applicable Department of Commerce and OSHA requirements. No material hoist may be used to transport personnel unless it meets Department of Commerce and OSHA requirements for that purpose.

PART 2 - PRODUCTS

1. SPECIFIED ITEMS - SUBSTITUTES

Wherever catalog numbers and specific or trade names are used in conjunction with a designated material, product, thing, or service mentioned in these Specifications, they are used to establish the standards of quality, utility, and appearance required. Substitutions, which are equal in quality, utility, and appearance to those specified, will be approved, subject to the following provisions:

All Substitutions must be accepted by the City Engineer or designee in writing. The City Engineer or designee will accept, in writing, such proposed substitutions as are in his or her opinion, equal in quality, utility, and appearance to the items or materials specified. Such acceptance shall not relieve the Contractor from complying with the requirements of the drawings and specifications, and the Contractor shall be responsible at Contractor's own expense for any changes resulting from Contractor proposed substitutions which affect the other parts of Contractor's own work or the work of others.

The manufacturer shall be a company specializing in the manufacture of the specified equipment and accessories with minimum five years documented experience.

Failure of the Contractor to submit proposed substitutions for approval in the manner described above and within the time prescribed shall be sufficient cause for disapproval by the City Engineer or designee of any substitutions otherwise proposed.

2. APPROVED TESTING LABORATORIES

- Underwriters Laboratories Inc.
- Electrical Testing Laboratories, Inc.

PART 3 - EXECUTION

1. INSTALLATION

Install in accordance with manufacturer's instructions and all code requirements. Provide the City or designee with copy of manufacturer's instructions prior to installation. Coordinate equipment location with piping, ductwork, conduit and equipment of other trades to allow sufficient clearances. Locate equipment to provide access space for servicing all components. Install in accordance with recognized industry practices. The manufacturer's latest recommendations at the time of bidding shall be used.

Startup and test equipment and adjust operating and safety controls for proper operation.

Contractor shall coordinate work with existing equipment so that all systems, equipment and other components will fit the available space, and will allow proper service and repair. Each location needs to be approved by the City or designee. This also applies to existing equipment if newly installed equipment interferes with its accessibility. Location of equipment has to fit into existing panels, decoration or finish. The City can request minor position changes of equipment before the work has begun.

The Contractor shall cooperate in reducing objectionable noise or vibration. If noise or vibration is a result of improper material or installation, these conditions shall be corrected at no cost to the City. Abnormal buzzing in equipment is not acceptable.

Carpentry, Cutting, Patching, and Core Drilling:

Provide carpentry, cutting, patching, and core drilling required for installation of material and equipment specified in the scope of work. Do not cut, core, or drill structural members without consent of the The City.

Waterproof Construction:

Maintain waterproof integrity of penetrations of materials intended to be waterproof. Provide flashings at exterior roof penetrations. Caulk penetrations of foundation walls and floors watertight. Provide membrane clamps at penetrations of waterproof membranes. Provide waterproof NEMA 3R enclosures for all equipment or devices mounted outside or otherwise exposed to the weather.

Workmanship:

Install using procedures defined in NECA Standard of Installation and shall be conform with all codes and regulations. Materials and equipment of the types for which there are National Board of Fire Underwriters' Laboratories (UL) listing and label service shall be so labeled and shall be used by Contractor.

Modifications to existing construction and Alterations:

Alter, extend and reconnect existing conduit as necessary. Reconnect existing conduits, which were reused, cut or exposed because of construction as quickly as possible. Where wiring is involved, new wires shall be "pulled in" between the nearest available accessible reused outlets to the extent allowed by the governing code. Furnish and install new conduits for wires if they cannot be "pulled in" to existing conduits. All new conduits, wiring, and electrical items shall be connected to the existing systems so as to function as a complete unit. Where existing electrical equipment, devices, fixtures, electrically operated items, etc., interfere with any remodeling work, they shall be removed and reinstalled in another location to avoid such interferences. all existing and relocated equipment shall be left in good operating condition. Include in bid removal from service of existing electrical material and equipment as specified hereinafter, as noted on the drawings, or as needed by field conditions.

Painting of Equipment and Hardware:

Provide moisture resistant paint for all exterior painting. Colors shall be as shown on the drawings unless specified. Refer to individual Sections and construction drawings for painting requirements. All exposed conduits, raceways and gutters inside and outside the building shall be painted to match the wall color.

2. DELIVERY, STORAGE AND HANDLING OF MATERIALS

Contractor or the Contractor's authorized representative must be present to accept delivery of all equipment and material shipments. The City will not knowingly accept, unload or store anything delivered to the site for the Contractor's use. Inadvertent acceptance of delivered items by any or employee of the City shall not constitute acceptance or responsibility for any of the materials or equipment. It is the Contractor's responsibility to assume liability for equipment or material delivered to the job site.

Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays. Materials and equipment shall be delivered to the site in adequate time to ensure uninterrupted progress of the work and inspection of material by the City. Deliver materials in manufacturer's original, unopened, undamaged containers

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work with the City to minimize disruption to the existing building occupants. is indicated to be reused equal to that existing before work began. All piping and ductwork specialties are to be

with identification labels intact. Care shall be taken to prevent damage to materials and equipment during loading, transporting and unloading. Packaged materials and equipment shall be delivered to the site in original, undamaged containers bearing manufacturer's name, with seals unbroken. Packaged units shall be delivered in their original crates. Store in a clean and dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to protect units from dirt, water, construction debris, and traffic. Promptly inspect shipments to insure that the material is undamaged and complies with specifications. Materials or equipment, which do not conform to the Specifications or are damaged shall not be incorporated in the work and shall be immediately removed from the site.

Arrange for the necessary openings in the building to allow for admittance of all apparatus. When the building access was not previously arranged and must be provided by this Contractor, restore any opening to its original condition after the apparatus has been brought into the building.

Contractor shall confine equipment, apparatus, storage of materials and operations to limits indicated on the drawings or by specific direction of the City. The storage of materials on the grounds and within the building shall be in strict accordance with the instructions of the City. Storage of materials within the building shall at no time exceed the design carrying capacity of the structural system. The City assumes no responsibility for materials stored in building or on the site. The Contractor assumes full responsibility for damage due to the storage of materials. Repairing of areas used for placing of sheds, offices, and for storage of materials shall be done by the Contractor.

Material shall be stored according to manufacturer's recommendations as a minimum. Provide and maintain watertight storage sheds on the premises where directed, for storage of materials that might be damaged by weather. Sheds shall have wood floors raised at least 6" above the ground. Materials, construction sheds, and earth stockpiles shall be located so as not to interfere with the installation of the utilities nor cause damage to existing lines. Should it be necessary at any time to move material sheds or storage platforms, the Contractor shall move it at the Contractor's expense, when directed by the City. All materials affected by moisture shall be stored on platforms and protected from the weather. In addition, material must be stored in a location protected from vandalism and weather. If material is stored outside, it must be covered with opaque plastic or canvas with provision for ventilation to prevent condensation and for protection from weather. If necessary, material will be stored off site at the Contractor's expense. Offsite storage agreements will not relieve the Contractor from using proper storage techniques. Storage and protection methods must allow inspection to verify products.

All materials shall be stored in a manner that prevents release of hazardous material to the environment. All hazardous materials, including motor fuels, shall be properly handled and contained to prevent spills or other releases. The Contractor shall develop and maintain a contingency plan to provide emergency response, containment, and cleanup of spills of hazardous materials resulting from contract activities. All spills and releases shall be reported to the City as soon as possible. Please note that the Standard Specifications Section 107.4(f) must be followed and overrides any provision in these specifications.

Cover pipes and ducts to prevent corrosion or deterioration while allowing sufficient ventilation to avoid condensation. Do not store materials directly on grade. Protect pipe, duct, tube, and fitting ends so they are not damaged. Where end caps are provided or specified, take precautions so the caps remain in place. Protect fittings, flanges, and unions by storage inside or by durable, waterproof, above ground packaging.

Store windows and doors in upright position, off ground, under cover and protected from sunlight, weather and construction activities.

3. DEMOLITION

Perform all demolition as indicated on the drawings to accomplish new work. Demolition Drawings are based on casual field observation and/or existing record documents. Verify field measurements and circuiting arrangements as shown on Drawings, verify that abandoned wiring, piping, ducting and equipment serve only abandoned facilities. Report discrepancies to the City before disturbing existing installation. Beginning of demolition means installer accepts existing conditions.

performed to detect any rebar. This work shall be performed at least a week before demolition starts to give A/E the opportunity to resolve any issues by rebar or other obstacles in unexpected locations. Drawings with existing subsurface obstacles may not be correct and shall not be relied on. Where demolition work is to be performed adjacent to existing work that remains in an occupied area, construct

temporary dust partition to minimize the amount of contamination of the occupied space. Where pipe or duct is

removed and not reconnected with new work, cap ends of existing services as if they were new work. Coordinate

Before demolition of any load bearing concrete a ground-penetrating radar or concrete X-ray scan needs to be

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whether or not PCB ballasts exist in light fixtures, which will be disposed of. If PCB light fixture ballasts exist, then follow requirements in other sections related to electrical work.

Patch holes and openings caused by removal of material and equipment, or formerly covered by such, with like material and texture of surrounding surface. Painting is not necessary unless noted otherwise.

removed from the site by the Contractor unless they are dismantled and removed or stored by the City. Verify

Approval of all legal institutions shall be obtained prior to disposal of any equipment and materials. All disposal has to be in compliance with all local, county, state and nationwide regulations. All disconnected wiring shall be removed from all raceway systems, panels, enclosures pull boxes, junction boxes etc. irrespective of whether the removal is specified in the construction documents or not. The empty raceway systems shall be tagged spare on both ends of each termination.

Don't demolition equipment and material that is to stay in place. Repalce and repair any equipment and installations that get damaged during demolition.

4. CUTTING, PATCHING AND PAINTING

Cutting and patching required to access work in existing walls, in chases, above inaccessible ceilings, below floors, etc., shall be by the Contractor who requires the access, unless shown on the bid documents otherwise or noted otherwise.

The Contractor shall do all cutting, or fitting of the work as required to make its several parts fit together, or to receive the work of others, as shown or reasonably implied by the drawings or specifications, or as may be directed by the City. Holes cut in exterior walls and/or roofs shall be waterproofed.

The Contractor who cuts shall also be responsible for patching. Where cutting and patching is required, the Contractor shall hire individuals skilled in such work to do cutting and patching. The Contractor who removes or relocates building components which leaves a remaining opening shall be responsible for patching the opening.

Patching includes repairing openings to match adjacent construction and painting the surface to match existing surface including texture.

Painting means covering the entire wall where patching is to be done to nearest break point or corner unless indicated to be done by other trades. All paining will require patching. This includes all painting included in other sections.

Contractor shall not endanger any work by cutting, digging or otherwise and shall not cut or alter the work of others without their consent.

Do not pierce beams or columns without permission of the City and then only as directed in writing. If any ductwork, piping, conduit, etc. is required through walls or floors where no sleeve has been provided, use a core drill or saw cut to prevent damage and structural weakening.

Wherever any material, finish, or equipment, is damaged, the skilled trade shall accomplish the repair or replacement, in that particular work and the cost shall be charged to the party responsible for the damage. The City reserves the right to disallow any means and/or methods that, in the opinion of the City, are harmful to and/or not in the best interest of preserving the improvements receiving the work.

5. CONCRETE WORK

Provide all layout drawings, anchor bolts, metal shapes, and/or templates required to be cast into concrete or used to form concrete for support or installation of electrical, mechanical, plumbing piping, fixtures, specialties and equipment. This includes but is not limited to piping thrust restraints, pipe supports, hydrant supports, manholes, catch basins, grease traps, septic tanks, distribution boxes, valve pits, meter pits, cleanout cover pads, yard hydrant pads, etc. Coordinate locations of equipment, pipe penetrations in wet areas, etc. with other trades.

Unless noted otherwise provide cast in place concrete for equipment pads, manhole bases and thrust blocks. Concrete to be 3,000 psi at 28 days, 3/4 inch aggregate, five bags cement, three inch slump, air entraining admixture. The ACI 614 Recommended Practice for Measuring, Mixing and Placing of Concrete shall constitute the execution requirements.

6. EXCAVATION, BACKFILL, AND SURFACE RESTORATION

The Contractor shall take all measures necessary to become acquainted with the location of underground service, utilities, structures, etc., which may be encountered or be affected by the Contractor's work, and shall be responsible for damage caused by neglect to provide proper precautions or protection. As a minimum to become acquainted with such underground appurtenances, the Contractor shall: 1) Observe existing conditions visible at the site immediately prior to commencement of work; 2) Review available site plans incorporated in the contract documents

and/or provided by the City; 3) Final check with the City for additions to or changes from conditions indicated on site plans for the facility.

Before excavation in areas with utilities nearby, a ground-penetrating radar or ground radar scan needs to be performed to detect any subsurface obstacles. This work shall be performed at least a week before demolition starts to give A/E the opportunity to resolve any issues by utilities or other obstacles in unexpected locations. Drawings with existing utilities may not be correct and shall not be relied on.

Verify the locations of any water, drainage, gas, sewer, electric, telephone or steam lines which may be encountered in the excavation. Underpin and support all lines. Cut off service connections encountered which are to be removed at the limits of the excavation and cap. Existing pipes, electrical work, and all other utilities encountered, which may interfere with new work, shall be re-routed, capped, cut off, or replaced by the Contractor.

Perform all excavation and backfill work necessary to accomplish indicated systems installation. Excavate to below bottom of pipe and structure bedding (4" in stable soils, 6" in rock or wet trenches and 8" in unstable soil). Finish bottoms of excavations to true, level surface. Install lines passing under foundations with minimum of 1-1/2 inch clearance to concrete and insure there is no disturbance of bearing soil. Excavate whatever materials are encountered as required to place at the elevations shown, all pipe, manholes, and other work. Remove debris and rubbish from excavations before placing bedding and backfill material.

Remove rock encountered in the excavation to a minimum dimension of six (6) inches outside the pipe. Rock excavation includes all hard, solid rock in ledges, bedded deposits and unstratified masses, all natural conglomerate deposits so firmly cemented as to present all the characteristics of solid rock; which material is so hard or so firmly cemented that in the opinion of the City Engineer it is not practical to excavate and remove same with a power shovel except after thorough and continuous drilling and blasting. Rock excavation includes rock boulders of 1/2 cubic yard or more in volume. Rock excavation will be computed on the basis of the depth of rock removed and a trench width two (2) feet larger than the outside diameter of the pipe where one (1) pipe is laid in the trench and three (3) feet larger than the combined outside diameter where two (2) pipes are laid in the trench. Include 6" pipe and structure bedding in rock excavation. Include rock excavation shown on the plans in the Base Bid.

Bed pipe up to a point 12" above the top of the pipe. Take care during bedding, compaction and backfill not to disturb or damage piping. Bedding up to a point 12" inches above the top of a pipe or conduit shall be thoroughly compacted sand or crushed stone chips meeting the following gradations:

Gradation for Crushed Stone Chip Bedding

Sieve Size	% Passing (by Wt)	Sieve Size	% Passing (by Wt)
1 inch	100	1/2 inch	100
No. 16	45 - 80	No. 4	75 - 100
No. 200	2 - 10	No. 100	10 - 25

Gradation for Bedding Sand

Provide shoring, sheet piling and bracing in conformance with the Wisconsin Administrative Code to prevent earth from caving or washing into the excavation. Shore and underpin to properly support adjacent or adjoining structures. Abandon in place shoring, sheet piling and underpinning below the top of the pipe, or, if approved in advance by the City Engineer, maintained in place until other permanent support approved by the City Engineer is provided.

Tunnel or remove sidewalk and curb in areas of excavation to the nearest joint. Remove pavements, curbs and gutters to neat and straight lines to the limits of removal. Make sawcut lines parallel to existing joints, or parallel or perpendicular to pavement edges to form a neat patch. Carefully remove remaining pavement within the sawcut area. Leave existing base materials between the area disturbed by the work and the sawcut line undisturbed by the sawcutting, pavement removal, or pavement replacement processes.

Strip topsoil from area to be excavated, free from subsoil and debris, and store separately for later re-spreading. No topsoil shall be removed from site and all topsoil is property of the City. Remove surplus excavated non-topsoil materials from site and dispose properly.

At no time place excavated materials where they will impede surface drainage unless such drainage is being safely rerouted away from the excavation.

Provide and maintain all fencing, barricades, signs, warning lights, and/or other equipment necessary to keep all excavation pits and trenches and the entire subgrade area safe under all circumstances and at all times. No excavation shall be left unattended without adequate protection.

Elevations shown on the plans are subject to such revisions as may be necessary to fit field conditions. No adjustment in compensation will be made for adjustments up to two (2) feet above or below the grades indicated on the plans.

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Three days before backfilling, the City shall be notified so that the City Surveyor can obtain the three-dimensional coordinates of all buried utilities. Buried utilities including the pipeline and any other utilities exposed during construction shall not be covered with backfill without the prior approval of the City. Coordination of this survey requirement is the responsibility of the Contractor. Surveyors will be provided by the when scheduled. The cost for delay or dig-up related to the Contractor's failure to schedule the utility survey shall be paid by the Contractor. Alternately, the Contractor shall install reference points consisting of nail and hub/flagging at all changes in grade or alignment of the new pipeline and for all other utilities exposed by the excavation. The Contractor shall keep a separate written record referenced to each point with the following information:

Offset and depth to top and centerline of utility, accurate to 0.1 feet

(2) Type of utility (i.e. gas, water, etc.)

(3)Size of utility (i.e. 2", 4", 16" wide duct, etc.)

(4) Type of material of utility (i.e. cast iron, PVC, etc.)

Identification tape shall be installed 12" above the buried utility crown. The identification tape shall be continuous for the entire length of utility. Before backfilling for buried utilities over identification tape, the City construction inspector will verify that identification tape has been installed.

21 22 Mechanically compact bedding and backfill to prevent settlement. The initial compacted lift to not exceed 24" compacted to 95% density per Modified Proctor Test (ASTM D-1557). Subsequent lifts under pavements, curbs, walks and structures are not to exceed 12" and be compacted to 95% density per Modified Proctor Test. In all other areas where construction above the excavation is not anticipated within 2 years, mechanically compact backfill in lifts not exceeding 24" to 90% density per Modified Proctor Test. Route the equipment over each lift of the material so that the compaction equipment contacts all areas of the surface of the lift.

Backfill above the bedding in lawn areas shall be thoroughly compacted excavated material free of large stones, organic, perishable, and frozen materials.

Backfill above the bedding under existing and future utilities, paving, sidewalks, curbs, roads and buildings shall be granular materials, pit run sand, gravel, or crushed stone, free from large stones, organic, perishable, and frozen materials.

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Completely restore the surface of all disturbed areas as described below to a like condition of the surface prior to the work. Level off all waste disposal areas and clean up all areas used for the storage of materials or the temporary deposit of excavated earth. Remove all surplus material, tools and equipment. Topsoil shall be spread upon order from the City, typically right before any planting to avoid disturbance of topsoil by construction activities.

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Lawns: Topsoil with 4" of clean, friable, fertile topsoil conforming to D.O.T. Section 625, free from debris, lumps, rocks, roots, plants and seeds. Grade surfaces to match adjacent elevations. Rake smooth, free of lumps and debris. Sod with good quality nursery sod conforming to D.O.T. Section 631, be uniform, dense, free from weeds and consist of approximately 60% Kentucky blue grass and the balance perennial rye, fescue and white clover. Place sod with joints staggered and abutting. Maintain lawn areas for one month after installation. Department will be responsible for necessary watering and mowing. Contractor needs to inform Department about watering needs. Do necessary weeding, repair, reseeding or resodding until uniform catch is obtained.

Curb and Gutter: Concrete curb and gutter conforming to the City requirements and D.O.T. Section 601, Type D or

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Sidewalk and Walkways: Non-reinforced concrete conforming to D.O.T. Section 602, thickness to match existing, cross slope of one-fourth inch per foot, scored into squares approximately equal to width.

Bituminous Concrete Pavements: 4" thick crushed stone base course conforming to D.O.T. Section 304 (excluding 304.2.4) and two pass bituminous concrete pavement conforming to D.O.T. Section 407, first course 1-1/2" binder, second course 1-1/2" surface.

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7. DEWATERING

Provide, operate and maintain all pumps and other equipment necessary to drain and keep all excavation pits, trenches and the entire subgrade area free from water under all circumstances. Obtain general permit from the Wisconsin Department of Natural Resources district office for discharge of construction dewatering effluent. Obtain well permit from the Wisconsin Department of Natural Resources district office for dewatering wells discharging more than 70 GPM. Comply with permit requirements.

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Temporary pumps required for pumping water from building excavation or from building proper shall be provided by the Contractor, including temporary connections. Permanent sump pumps shall not be installed until building is substantially complete and when approved by the City. The Contractor shall remove temporary pumps and connections when approved by the City.

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8. SEALING AND FIRESTOPPING

The Contractor penetrating a fire rated wall/floor/ceiling is responsible for sealing this opening to the same rating as the wall/floor/ceiling is rated.

Sealing and firestopping of sleeves/openings between conduits, cable trays, wire ways, troughs, cablebus, busduct, pipes, ducts etc. and the structural or partition opening shall be the responsibility of the Contractor whose work penetrates the opening. The Contractor responsible shall hire individuals skilled in such work to do the sealing and firestopping. These individuals hired shall normally and routinely be employed in the sealing and fireproofing occupation.

FIRE AND/OR SMOKE RATED PENETRATIONS:

Install approved product in accordance with the manufacturer's instructions where an installation penetrates a fire/smoke rated surface. When pipe is insulated, use a product, which maintains the integrity of the insulation and vapor barrier.

Where firestop mortar is used to infill large fire-rated floor openings that could be required to support weight, provide permanent structural forming. Firestop mortar alone is not adequate to support substantial weight.

Whenever possible, avoid penetrations of fire and smoke rated partitions. When they cannot be avoided, verify that sufficient space is available for the penetration to be effectively fire and smoke stopped. All firestopping systems shall be by the same manufacturer. Firestop systems shall be UL listed or tested by an independent testing laboratory approved by the Department of Commerce. The Contractor will be responsible for selecting the appropriate UL tested fire stop system for each application required on the project and will submit this to the City or designee for review. Each firestop manufacturer has specific details for different applications they have tested.

Manufacturers: 3M, STI/SpecSeal, Tremco, Hilti or approved equal.

Submittals: Contractor shall submit product data for each firestop system. Submittals shall include product characteristics, performance and limitation criteria, test data, MSDS sheets, installation details and procedures for each method of installation applicable to this project. For non-standard conditions where no UL tested system exists, submit manufacturer's drawings for UL system with known performance for which an engineering judgment can be based upon. Use a product that has a rating not less than the rating of the wall or floor being penetrated. Reference architectural drawings for identification of fire and/or smoke rated walls and floors.

Contractor shall use firestop putty, caulk sealant, intumescent wrapstrips, intumescent firestop collars, firestop mortar or a combination of these products to provide a UL listed system for each application required for this project. Provide mineral wool backing where specified in manufacturer's application detail.

NON-RATED PENETRATIONS:

Conduit Penetrations Through Below Grade Walls:

In exterior wall openings below grade, use a modular mechanical type seal consisting of interlocking synthetic rubber links shaped to continuously fill the annular space between the uninsulated conduit and the cored opening or a water-stop type wall sleeve.

Conduit and Cable Tray Penetrations:

 At conduit and cable tray penetrations of non-rated interior partitions, floors and exterior walls above grade, use urethane caulk in annular space between conduit and sleeve, or the core-drilled opening.

 In exterior wall openings below grade, assemble rubber links of mechanical seal to the proper size for the pipe and tighten in place, in accordance with manufacturer's instructions.

 At all interior partitions and exterior walls, pipe penetrations are required to be sealed. Apply sealant to both sides of the penetration in such a manner that the annular space between the pipe sleeve or cored opening and the pipe or insulation is completely blocked.

9. CLEANING

 The Contractor shall clean up and remove from the premises, on a daily basis accumulation of surplus materials, rubbish, debris and scrap and shall repair all damage to new and existing equipment resulting from its work. When job is complete, this Contractor shall remove all tools, excess material and equipment, etc., from the site.

All installed items shall be cleaned at time of installation, and all lens exteriors shall be cleaned just prior to final inspection. Equipment shall be thoroughly cleaned of all stains, paint, spots, dirt and dust. All temporary labels not used for instruction or operation shall be removed. Dust, dirt and other foreign matter shall be removed completely from all internal surfaces of all mechanical and electrical units, cabinets, ducts, pipes, etc. Dirt, soil, fingerprints, stains and the like, shall be completely removed from all exposed finished surfaces.

 Contractor shall wash all glass immediately prior to the occupancy of this project. Work shall include the removal of labels, paint splattering, glazing compound and sealant. Surfaces shall include mirrors and both sides of all glass in windows, borrowed lights, partitions, doors and sidelights. In addition to the above, the Contractor shall be responsible for the general "broom" cleaning of the premises and for expediting all of the cleaning, washing, waxing and polishing required within the technical sections of the specifications governing work under this Contract. The Contractor shall also perform "final" cleaning of all exposed surfaces to remove all foreign matter, spots, soil, construction dust, etc., so as to put the project in a complete and finished condition ready for acceptance and use intended.

If rubbish and debris is not removed, or if surfaces are not cleaned as specified above, the City reserves the right to have said work done by others and the related cost(s) will be deducted from monies due the Contractor.

10. CONTINUITY OF SERVICE AND SHUTDOWN

Contractor shall provide and maintain continuous service (power, controls, alarms, communication, elevators, HVAC, roads etc.) during the entire construction period. No outages shall be permitted on existing systems except at the time and during the interval specified by the City. Any outage must be scheduled when the interruption causes the least interference with normal institutional schedules and business routines and might be scheduled during after-hours if regular business hours are not acceptable to the City. No extra costs will be paid to the Contractor for such outages, which must occur outside of regular weekly working hours. Cost to the utility is paid by Contractor. The Contractor shall provide temporary utility services and bypasses for any disruptions not completed within this period. The Contractor shall restore any circuit interrupted as a result of this work to proper operation as soon as possible.

If the building is occupied and continues operation during construction, retrofit or demolition, Contractor must maintain ventilation and air conditioning for as large parts of the building as technically feasible. Spreading of dirt, dust and other construction related material must be kept to a minimum. Occupied and work areas must be separated by seals. All work affecting air conditioning and ventilation must be coordinated with the daily work in the building and approved by the supervisor or department head at the building. If air conditioning, heating and ventilation has to be taken out of service for longer periods of time in parts of the building and work would be affected negatively, the Contractor shall provide temporary sufficient air conditioning, heating and ventilation in coordination with the department. All such taking out of service has to be coordinated and approved by the supervisor or department head at the building.

If the shutdown involves the interface with, or modification of, existing building energy system(s), the Contractor shall be required to show the reviewed submittal and shop drawings of the proposed modifications. Shutdown schedules shall have been reviewed and approved by the City at least 72 hours prior to date of shutdown. Post-ponement by the City of scheduled shutdowns shall not constitute a basis for additional charges to the City.

Prior to the shutdown of any building energy system(s) the Contractor shall provide the following:

- Proof of receipt of all materials required for the shutdown or a written commitment from the responsible suppliers that the required materials will be available at the time of the shutdown.
- A list of the qualified Contractor personnel assigned to perform the work.
- Analysis of any affect on the utility or building energy system(s) and the estimated duration of the shut-down.
- Work plan for the shutdown
- A twenty-four-hour emergency callback phone number to be used by the City in the event of any problems or concerns with the modifications made to the building system(s) after the Contractor has left the site.

The startup of electrical and mechanical utility systems constructed by Contractor shall be performed by Contractor in coordination with the City.

11. PROJECT MEETINGS

Project meetings will be held at the time designated by the City. If the principal of the firm does not attend meetings, a responsible representative of the Contractor who can bind the Contractor to a decision at the meetings shall attend. The City or designee will write a report covering all items discussed and decisions reached and copy of such report distributed to all parties involved.

During construction, weekly project meetings may be held at the discretion of the City. The minutes of these meetings will be prepared by the Contractor and one copy issued as expeditiously as possible to the each party. Involved in the project the Contractor will submit, in writing, questions and/or answers (previously obtained verbally) to be confirmed at each meeting.

12. TEMPORARY CONSTRUCTION

Temporary construction shall conform to all requirements and laws of state and local authorities, which pertain to operation, safety, and fire hazards. Contractor shall furnish and install all items necessary for conformance with such requirements, whether called for under separate sections of these Specifications or not. Contractor shall provide, maintain, and remove upon completion of his work:

Temporary crossovers and bypass to utilities, electrical connections, traffic and footbridges, and walkways used to maintain services or communications, which cannot be interrupted or curtailed.

Temporary rigging, scaffolding, shoring, hoisting equipment, and all other temporary work as required for

this project.

Temporary barricades around openings and excavations for this project.

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Temporary lighting, if necessary during the period of construction, shall be supplied and maintained by the Contractor at Contractor expense so that construction work can be safely performed. The temporary lighting system shall be sufficient to enable all trades to safely complete their work and to enable the City to check all work as it is being done. Illumination shall be 5 foot-candles minimum in all areas and, in addition, shall meet or exceed the requirements of 29 CFR 1926.56 Illumination (OSHA regulations). In accordance with the latest issue of the National Electrical Code, all temporary electrical circuits for construction purposes shall be equipped with combination ground fault interrupter and circuit breakers meeting the requirements of UL for Class A, Group 1 devices. The ground fault interrupter portion shall be solid-state type, insulated and isolated from the breaker mechanism. A test button shall be provided for checking the device. The breaker mechanism shall provide overload and short circuit protection and shall be operated by a toggle switch with over center switching mechanism so that contact cannot be held closed.

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TEMPORARY HEAT

Not applicable.

TEMPORARY ELECTRICAL SERVICE

A 110VAC electrical circuit shall be made available by the City. If this does not meet the need of the contractor, then the contractor shall employ a suitable portable generator.

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TEMPORARY WATER, SEWER AND PUMPS

An onsite hose bib is avaivable on site. The Contractor shall supply all water required for construction and other purposes which are required beyond the capacity of this water supply. Waste of water shall be avoided and valves, connections, pumps pipes and hoses shall be provided by Contractor kept in perfect condition.

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Water supply used by workmen shall be kept clean and sanitary at all times.

where directed. When directed, move the office into a suitable area in the building.

Contractor's supervisor at site shall acknowledge receipt of punch list.

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TOILETS

If the contractor elects to not make use of the toilet facilities provided by the City, the Contractor may provide and maintain sanitary temporary toilets, located where directed by the City, in sufficient number required for the force employed. The toilets shall comply with International Building Code Chapter 29 on Plumbing Systems. Toilets shall be self-contained chemical type.

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The Contractor shall maintain the temporary toilets in a sanitary condition at all times FIELD OFFICES

The Contractor may provide, maintain and remove upon completion a temporary watertight office where directed for use by the Contractor and Trades. The office shall be equipped with a plan rack, a suitable table for examination of plans and shall have adequate equipment for document files and space for job meetings. Exterior of offices shall be of neat appearance, and if deemed necessary by the City, shall be painted to achieve such appearance; heat offices during cold weather; provide each office with at least one glazed movable window and one door with a cylinder lock and latch set. Provide and maintain artificial light, minimum of 40 foot-candles, and two duplex outlets

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13. IDENTIFICATION

Not applicable.

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14. LUBRICATION

Not applicable.

15. PUNCH LIST

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Multiple punch lists can be submitted.

61 62 If Contractor fails to perform required corrective work in less than 30 days upon receipt of punch list by Contractor, the City can perform corrections himself and charge the Contractor. Contractor shall advice the City or designee that the necessary work has been performed. If the City or designee

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verify if punch list items were not resolved and the work was not performed in less than 30 days upon receipt of punch list by Contractor, the Contractor shall be required to compensate the for additional site visits at a rate of \$ 100/hour plus mileage with the amount paid to the City or designee prior to processing the final payment.

16. TESTS AND FINAL ACCEPTANCE

The complete installation consisting of the several parts and systems and all equipment installed according to the requirements of the Contract Documents, shall be ready in all respects for use by the City and shall be subjected to a test at full operating conditions and pressures for normal conditions of use.

Proper notice has to be given to enable the City or designee to attend all tests. Failure to give proper notice can result in repeated tests to be paid for by the Contractor. Tests are acceptable on properly working equipment only and have to be repeated as often as required by the City at no cost to the City. If tests have to be repeated by an City-hired Contractor due to equipment not installed or working properly, the Contractor shall reimburse the City for additional testing expenses.

Contractor shall make all necessary adjustments and replacements affecting the work, which is necessary to fulfill the City's requirements and to comply with the directions and recommendations of the manufacturer of the several pieces of equipment, and to comply with all codes and regulations, which may apply to the entire installation. Contractor shall also make all required adjustments to comply with all provisions of the drawings and specifications.

Prior to acceptance, all elements of operating equipment, including those of mechanical nature and those that slide, swing, turn, or are intended to move in any way and those of an electrical nature, shall be given an operating test to assure to the satisfaction of the City that such equipment operates as required. Contractor shall make all adjustments, replacements, and such other modifications as needed. If it is necessary to run equipment in order to complete the work, for periods that exceed the manufacturer's recommended maintenance interval, the Contractor will provide such required maintenance at no additional cost to the City.

Notice that the work is ready for final inspection and acceptance shall consist of a written notice issued to the City by the Contractor stating that the Contractor has carefully inspected all portions of the work, has reviewed in detail the drawings and specifications, and that to the best of the Contractor's knowledge all conditions of the contract documents have been fulfilled. Upon receipt of this notice, the City and the Contractor shall make a joint inspection of the work. After deficiencies, if any, have been corrected or accounted for, and after all work is satisfactorily complete, the City will accept the work; and Notice of Completion will be filed by the City.

Prior to final acceptance, filing of the Notice of Completion or processing of final payment, the following shall be done and submitted reviewed and accepted by the City:

- Certificates of compliance and guarantees required under various Sections

- Operating and maintenance manuals
- Instruction to City personnel, as required
- Test reports (TAB, fire alarm, elevator etc.)
- Certifications and registrations (boiler etc.)
- All keys
- Replacement material as required in specifications
- All required operations tests
- All documents required by commissioning, LEED certification and other project related documents
- Satisfy all commissioning requirements
- As -built documents
- All punch list items resolved
- All training provided (except deferred seasonal training)
- All warranty issues brought to Contractor's attention so far resolved
- Warranty documents signed by representative of manufacturer, guarantee documents, roofing agreement and other warranty related documents

No official closeout and final payment will be made before all requirements are met.

17. TRAINING AND DEMONSTRATION

The City's facility staff (and occupants and service Contractors as needed), shall receive orientation and training on features, systems and equipment in this facility requisite with the complexity and criticality of the system and the City's needs.

Additional training requirements may be found in specific equipment sections. The City may videotape all training sessions.

Only training on equipment that works as designed is acceptable.

The Contractor shall be responsible for training coordination and scheduling and ultimately for ensuring that training is completed on all equipment per the Specifications. Unless otherwise required or approved, the training shall be given during regular business hours during a regular work week.

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42 43 The City or designee will be responsible for coordinating and approving the content and adequacy of the training of the City personnel for commissioned equipment. The City or designee will develop an overall training plan after meeting with the City and appropriate facility staff to determine needs and areas of emphasis for this project. The City or designee will develop criteria for determining that the training was satisfactorily completed, including attending some of the training, etc. The City or designee recommends approval of the training to the City.

Training shall consist of, as needed and at the discretion of the City or designee, the installing technician, installing Contractor and the appropriate trade or manufacturer's representative.

18. ROADWAY The Contractor may build a temporary roadway for delivery of materials at the Contractor's own expense and maintain it until completion of construction

19. FENCE

The Contractor shall provide a neat appearing protective fence where indicated on the drawing, constructed of standard studded T-Posts of sufficient length for line posts and spaced not to exceed 8'-0" apart. Corner posts and gate posts are to be galvanized steel pipe of not less than 2 1/2" o.d. and shall be properly braced. A 4-foot high wooden snow fence shall be securely fastened to the supports. Plastic fencing is not acceptable. The snow fence shall project 4" above the fence posts. Provide gates, properly constructed and braced, complete with hinges, hasps, and padlocks in number and location required for proper control, delivery and distribution of material and equipment. Gateposts shall be adequately back tied and anchored to insure a rigid installation. All protective fencing shall be maintained in an upright, orderly fashion throughout the construction schedule. In areas where existing trees are to be protected, the area inside the protective fencing shall not be used for any purpose related to construction activities, such as material storage, vehicle parking, portable toilets, or other disruptive activities that would result in damage of any kind to the site inside the fence.

20. SIGNS

Contractor shall furnish and install signs, located as directed by the City. The signs shall be readily legible to the general public, subcontractors, material men, and truck drivers approaching the site and shall include the following information:

- Project.
- Subcontract No.
- Subcontractor Name.
- Access to Buildings: Contractor shall keep access to existing buildings clear at all times.

The Contractor shall order, paint and erect the sign. The sign shall be placed on the property where directed and shall be maintained for the duration of the construction period.

No individual advertising signs, plaques or credits, temporary or permanent, will be permitted on the building or premises, except the name of the Contractor on Contractor's office or material shed.

END OF SECTION

1 PART 1: GENERAL

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1.1. WORK INCLUDED

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- a. Provide all labor, materials, services and incidentals necessary to perform the following work:
 - i. Carefully remove, clean and sort by size and store existing Madison sandstone for reuse to the extent shown on the Drawings.
 - Remove and dispose of existing Madison sandstone, limestone, and brick masonry to the extent shown on the Drawings.
 - Remove and dispose of existing collateral material associated with the above, as required.
 - General note regarding intent: it is the intention of the City of Madison that the existing historic "fabric" of the building be maintained, intact to the greatest extent possible.

1.2. REGULATORY REQUIREMENTS

- a. The following regulatory requirements shall be followed:
 - i. Local, State and Regional Building Codes
 - ii. Occupational Safety and Health Administration (OSHA)
 - iii. United States Department of Transportation (US DOT)
 - iv. Environmental Protection Agency (EPA)
 - v. National Emission Standards for Hazardous Air Pollutants (NESHAP)
 - National Park Service (NPS) vi.
- b. The Architect is not an advisor of asbestos-related issues. The Contractor shall consult the Owner's Asbestos Personnel for clarifications.

1.3. PROTECTION

- a. When Work involves removal of masonry materials; the following minimum requirements shall be enforced:
 - i. The Contractor shall exercise extreme caution and take all necessary precautions to limit exposing his workmen or bystanders to any dangerous conditions.
 - ii. Protect all existing utilities against damage. Maintain existing utilities during deconstruction operations.
 - Protect passageways and maintain all exit ways to facilitate the safe passage of persons around the area of deconstruction. Do not modify the facilities code compliant status in any way that is not specifically addressed in this Project Manual.
 - Provide interior and exterior shoring, bracing, or support as required to prevent movement, settlement, or collapse of adjacent construction scheduled to remain.
 - Protect all remaining portions of the wall, landscaping and other property not scheduled for deconstruction. These areas shall be completely protected during deconstruction and removal of debris. Any resulting damage shall be repaired or replaced to like-new condition by the Contractor responsible under the direction and approval of the Owner and Architect.
 - Protect area designated by the Owner and the Architect with necessary framing, plastic sheet, or similar materials to prevent visible dust and debris from entering the groundbased equipment. Remove dust and debris protection materials upon job completion.
 - When the Work involves removal of wall materials containing asbestos, notify the Architect immediately.

1.4. OCCUPANCY

- The Owner shall occupy the site during deconstruction and construction and the site shall remain
- Coordinate all Work in advance with the Owner, the Owner's on site personnel and the Architect.

1.5. DUST CONTROL

- a. The following minimum requirements will be enforced:
 - i. It is imperative that construction related dust be kept to a minimum during removal of the Madison sandstone and masonry.

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PART 2: PRODUCTS

2.1. NOT USED.

PART 3: EXECUTION

3.1. MADISON SANDSTONE

- a. Remove existing stone (Madison sandstone and/or limestone) as required to complete the installation of all new Work as shown or specified. Refer to the Drawings for the extent of the existing construction that is to be removed.
- b. Great care, for sandstone only, must be taken not to damage the existing stones. This material is <u>not</u> readily available.
- c. Do not start deconstruction of existing materials when severe weather is expected.
- d. Refer to this section for requirements relating to protection of existing structure and property.
- e. If during the course of the deconstruction Work portions of the existing structure are opened to the weather, it shall be the Contractor's responsibility to close such openings as required in a weathertight manner at the end of each workday.

3.2. LIMESTONE

- a. Remove existing limestone as required to complete the installation of all new Work as shown or specified. Refer to the Drawings for the extent of the existing construction that is to be removed.
- b. Do not start deconstruction of existing materials when severe weather is expected.
- c. Refer to this section for requirements relating to protection of existing structure and property.
- d. If during the course of the deconstruction Work portions of the existing structure are opened to the weather, it shall be the Contractor's responsibility to close such openings as required in a weathertight manner at the end of each workday.

3.3. DISPOSAL OF MATERIALS

- a. The Contractor shall make every attempt to recycle 100% of materials including stone, mortar and wood prior. Provide documentary proof of all recycling efforts.
- b. The Contractor shall remove all deconstruction material (that is not scheduled for reuse) from the Owner's site.
 - i. No prolonged accumulation of debris will be allowed. Debris shall be removed as it accumulates.
 - ii. Sale of removed items on the site will not be allowed.
 - iii. Debris shall be transported on covered dumpsters or trucks.
 - iv. The site is to be cleaned at the end of each working day.
- c. No burning on site will be permitted.

END OF SECTION 02 41 00

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PART 1 - GENERAL

1.1. CONDITIONS OF THE CONTRACT

a. The conditions of the Contract (General, Supplementary, and Other Conditions) and the requirements of Division 1 are hereby made a part of this Section. Applicable provisions of Division 1 shall govern Work under this Section.

1.2. WORK INCLUDED

a. Unless otherwise specified, the Contractor shall furnish all materials, tools, equipment, apparatus, transportation, labor and supervision required to furnish and install all the cast-in-place concrete as shown on the Drawings and as specified herein.

1.3. RELATED SECTIONS

a. Section 02 41 00 - Deconstruction

1.4. QUALITY ASSURANCE

- a. There shall be no deviation made from this Specification without prior written approval by the Architect.
- b. All cast-in-place concrete work shall be performed by skilled journeymen tradesmen including but not limited to, cement masons, concrete installers / finishers, and laborers who are considered specialists in the field of the work specified in this Section.
- c. Journeymen tradesmen shall have a minimum of five (5) years experience in the specified type of work.
- d. During the workday should the weather conditions appear to be changing adversely, the Contractor shall take preventative measures to protect any unfinished Work that was to be performed that day and to allow adequate time for the work area to be properly closed to a watertight condition.
- e. Repair any Work damaged by failure to provide proper and adequate protection, to its original state to the satisfaction of the Owner, or remove and replace the defective Work with new at the Contractor's expense.
- f. It will be the Architect's prerogative to forbid the use of tools or methods that do not produce the quality of work that is expected and to insist on the use of tools and methods, which will do the Work properly.
- g. The Architect reserves the right to approve the material supplier for the new materials specified in this Section.
- h. All material and workmanship quality shall be in accordance with current industry standards and practices in conformance with the organizations outlined in 1.5. REFERENCES below.
- i. Properties of Concrete:
 - i. General Requirements:
 - 1. Design mixes to produce concrete of proper workability, durability, compressive strength, maximum density, and minimum shrinkage and permeability.
 - Design mixes to have a minimum water-cement ratio, the largest permissible maximum size specified coarse aggregate, and an optimum percentage of fine aggregate.
 - Use maximum size of coarse aggregate in accordance with ACI Committee Report 613, "Recommended Practice for Selecting Proportions for Concrete."
 - ii. Durability:
 - 1. For durability purposes, use a water-cement ratio in accordance with either ACI Committee Report 613, Table 4 as determined by the type of structure and exposure conditions, or 0.50 by weight, whichever is the lesser.
 - iii. Workability:
 - Use approved chemical or air-entraining admixtures, or suitable combinations thereof in accordance with ASTM C260 to improve workability, as well as, to reduce water and cement contents, and minimize shrinkage and permeability of the concrete, provided that these admixtures do not adversely affect other required properties of the concrete.
 - iv. Strength
 - 1. Design the mix for each class and type of concrete of a specified compressive strength based on the required overdesign factor according to ASTM C94, and assuming a coefficient of variation equal to 15. Unless otherwise shown, working

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125 126 stress method of design will apply to structures.

- 2. For working stress method of design each class of concrete shall be designed so that not more than 20 percent of the compressive strength tests will have values less than the specified compressive strength, and the average of six consecutive strength tests will be equal to or greater than the specified compressive strength.
- j. Method of Proportioning:
 - i. For proportioning mixes use methods as described in ACI Committee Report 613.
 - ii. Do not vary the proportions of the ingredients of the approved mixes without the written approval of the Architect and/or his Structural Engineer.
- k. Quality Control Testing During Construction:
 - i. Sampling Fresh Concrete: ASTM C172; except modified for slump to comply with ASTM
 - Slump: ASTM C143; one test for each concrete load at point of discharge and one for each set of compressive strength test specimens.
 - iii. Air Content: ASTM C231; pressure method; one for each set of compressive strength specimens.
 - iv. Compressive Strength Tests: ASTM C39; one (1) set for each 150 cubic yards (115 cubic meters) or fractions thereof, of each concrete class placed in any one day or for each 5000 sq. ft. (465 square meters) of surface area placed; one (1) specimen tested at 2 days, one (1) specimen tested at 7 days, one specimen tested at 28 days, and one (1) specimen retained in reserve for later testing if required.

1.5. REFERENCES

- References shall refer to the most recent industry standard and recommendations as represented by the organizations listed below.
 - i. American Concrete Institute (ACI)
 - ii. American Society for Testing and Materials (ASTM).
 - iii. Portland Cement Association (PCA)
 - iv. Concrete Reinforcing Steel Institute (CRSI)

1.6. SUBMITTALS

- a. Provide all data and sample materials in strict conformance and as specified below.
- Each submittal shall be clearly marked with the specific Specification Section, page number, and item designation that it represents. Each submittal shall be presented in the order that it is outlined in the PROJECT MANUAL - TABLE OF CONTENTS. Failure to do so may result in immediate rejection of the submittal.
- A total of three (3) copies of each submittal (data sheets) are required.
- Provide submittal information and Shop Drawings (as applicable) for the following items as specified in PART 2 - PRODUCTS:
 - i. Exterior Railings and Handrails
 - ii. Form Materials (including Form Ties)
 - iii. Form Coatings
 - iv. Reinforcing Materials
 - v. Concrete Materials
 - vi. Expansion Joint Materials
 - vii. Membrane-Forming Curing Compound
 - viii. Concrete Stair Tread Nosings
- Design Mixes:
 - i. At least 30 days prior to start of placing concrete submit design mixes for each class and type of concrete, indicating that the concrete ingredients and proportions will result in a concrete mix meeting the requirements specified.
 - ii. Include for each class and type of concrete as many mix designs, as there are combinations of different ingredients, or type of ingredients, anticipated to cover the requirements of the Work.
 - Compressive test cylinders for each design mix shall be made at the Contractor's expense by an independent testing laboratory approved by the Architect and tested in accordance with the ACI Code and "Method of Test for Compressive Strength of Molded Concrete Cylinders (ASTM C39)." Three cylinders will be required for each design mix.
 - iv. Furnish two (2) copies of each report to the Architect. Concrete mix design, which does not meet the Specifications, will be rejected.
 - v. Establish the mix designs and have them tested through the laboratory.

- 127 128 129 f. Certificates: 130 g. i. Ingredients: 131 132 133 134 135 136 137 138 139 140 141 a. Aggregates: 142 143 144 145 146 147 148 149 150 151 152 Package Cement: 153 154 155 156 157 158 159 160 **Bulk Cement:** 161 162 163 164 165 166 167 168 169 170 without approval. 171 172 173 174 175 176 177 178 PART 2 - PRODUCTS 179 180 2.1. FORM MATERIALS 181 182 183 184 185 186 187 188 189
 - vi. Submit cylinder test results for the various mix designs showing compressive strength at 2, 7, and 28 days.
 - Proposed Method of Temperature Control.
 - Submit with the mix design laboratory test reports attesting to the conformance of ingredients with these Specifications. Use ingredients in the design mix, which are representative samples of the material to be used in the Work.
 - In case the source, brand or characteristic properties of the ingredients need to be varied during the course of the Work, submit revised laboratory mix report, in conformance with the above procedures.

1.7. PRODUCT DELIVERY, STORAGE AND HANDLING

- i. Transport and stockpile aggregates according to their sources and gradations. Handle in a manner, which will prevent segregation and loss of fines or contamination with earth or foreign materials.
- If aggregates show segregation or the different grades become mixed, rescreen before placing in the proportioning bins.
- Do not use aggregates from different sources or of different gradations alternatively. Mix only to obtain different gradations.
- Do not transfer aggregates directly from trucks, railroad cars or barges to the proportioning bins when the moisture content is such that it will affect the accuracy of the proportioning of the concrete mixture. In such case, stockpile aggregate until the excess moisture drains off.
- i. Deliver to the project site in original sealed packages labeled with the weight, name of the manufacturer, brand, and type specified.
- Store packages in a watertight building.
- iii. Do not use cement, which has been reclaimed by cleaning bags.
- iv. Do not use cement, which has been damaged by exposure or over-stocking.
- v. Do not deliver packages varying more than three percent from the specified weight.
- vi. Packaged cement will be subject to test at any time.
- i. Store bulk cement separately from other cement and protect from deterioration from exposure to moisture and intrusion of foreign matter. Store packages in a watertight
- Provide facilities to maintain separation of cement meeting the requirements of these specifications from other cement. Do not use cement, which has been damaged by exposure or over-stocking.
- Provide in cement manufacturer's plant, facilities for sampling of cement at the weighing hopper or in the feed line immediately before entering the hopper.
- Do not use different brands of cement or the same brand of cement from different sources

1.8. GUARANTEES, WARRANTIES, CERTIFICATES

The Contractor shall guaranty both material and/or workmanship, and warrant the performance of all items specified in this Section for a period of two (2) years from the date of Substantial Completion as determined by the Architect.

- Unless otherwise indicated, construct formwork with plywood, metal, metal framed plywood faced, or other acceptable panel type materials to provide continuous, straight, smooth, exposed surfaces.
 - i. Provide form material with sufficient thickness to withstand pressure of newly placed concrete without bow or deflection
 - Provide forms that comply with US Product Standard PS 1 and the following:
 - 1. B-B High Density Overlaid Concrete Form, Class I.
 - B-B (Concrete Form) Plywood, Class I, exterior grade or better, mill oiled and 03 30 00.3

edge sealed, with each piece bearing legible inspection trademark.

- Form Coatings: Provide commercial formulation form-coating compounds that will not bond with, stain, nor adversely affect concrete surfaces, and will not impair subsequent treatments of concrete surfaces.
- c. Form Ties: Provide factory-fabricated, adjustable-length, removable or snap-off metal form ties, designed to prevent form deflection, and to prevent spalling concrete surfaces upon removal.
 - Unless otherwise indicated, provide ties so portion remaining within concrete after removal is at least I/2 inch (12.7 mm) inside concrete for steel ties and I/4 inch (6.35 mm) for wire ties.
 - ii. Unless otherwise indicated, provide form ties, which will not leave holes larger than one-inch (25 mm) diameter in concrete surface.

2.2 REINFORCING MATERIALS

- a. Cold-drawn steel wire: ASTM A82.
- b. Welded wire fabric: ASTM A185, welded steel wire fabric. Furnish in flat sheets, not rolls, unless rolls are acceptable to the Architect.
- c. Reinforcing Bars: ASTM A615, deformed.
 - i. Provide Grade 40 bars No. 3 and 4 for stirrups and ties.
 - ii. Provide Grade 60 bars No. 3 to 18, except as otherwise noted.
- d. Supports for Reinforcement: Provide supports for reinforcement including bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcing bars and welded wire fabric in place.
 - i. Use wire bar type supports complying with CRSI recommendations, unless otherwise indicated. Do not use wood, brick, stone, broken block or pieces of concrete.
 - ii. For concrete-on-grade, use supports with sand plates or horizontal runners if base material will not adequately support chair legs.
 - iii. For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, provide supports with legs, which are plastic protected, stainless steel protected, or special stainless complying with CRSI Classes, C, D, or E respectively.
- e. Shop-fabricate reinforcing bars to conform to required shapes and dimensions, with fabrication tolerances complying with ACI 315. In case of fabricating errors, do not rebend or straighten reinforcement in manner that will injure or weaken material.

2.3 CONCRETE MATERIALS

- a. Portland Cement: ASTM C150 Types I-II and III, "Low-Alkali" cement, unless otherwise specified.
 Use one brand of cement throughout project unless otherwise acceptable to the Architect.
- b. Aggregates: Aggregate shall be 3/4" round with the following sieve graduation:

Size	<u>% Passing</u>
1"	100
3/4"	90-100
3/8"	40-60
#4	0-10
#8	0-5

- c. Water: Potable, clean, fresh, free from oil, acid, organic matter or other deleterious substances.
- d. Admixtures: All admixtures shall be specified in the mix design.
 - i. Air-Entraining Admixture: ASTM C260.
 - ii. Water-Reducing Admixture: ASTM C494, Type A.
 - iii. Water-Reducing Retarding Admixture: ASTM C494, Type D.
 - iv. Chloride-containing admixtures are not permitted.

2.4 RELATED MATERIALS

- a. Expansion Joint Materials
 - i. Typical Building: ASTM D994, preformed strips of a bituminous mastic composition.
 - ii. Slabs-in-Ground and Sidewalks: ASTM D1751, preformed expansion joint filler having relatively little extrusion and substantial recovery after release from compression.
- b. Membrane-Forming Curing Compound: ASTM C309, Type I or I-D, Class A.

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2.5 EXTERIOR RAILINGS AND HANDRAILS

a. All exterior railings, handrails, and fittings shall be Type 316 welded stainless steel. Profiles and specific details shall be as shown on the Drawings. All stainless steel pipe and tubing shall receive a #6 polish. All machined steel fittings shall receive a #8 polish. All mitered and welded corners shall be ground smooth to match finish. Make exposed joints butt tight and flush.

2.6 PLANT, EQUIPMENT, MACHINES, AND TOOLS

- General: Plant, equipment, machines, and tools used in the work shall be subject to approval and shall be maintained in a satisfactory working condition at all times.
 - i. Provide equipment with capability of producing the required product, meeting grade controls, thickness control, and smoothness requirements as specified.
 - ii. Use of equipment shall be discontinued if it produces unsatisfactory results.
 - ii. The Architect shall have access at all times to the plant and equipment to ensure proper operation and compliance with specifications.

PART 3 - EXECUTION

3.1. EXAMINATION

a. The Contractor shall have the sole responsibility for the accuracy of all measurements and for the estimate of material quantities required and necessary to satisfy the requirements of these Specifications.

3.2. SEQUENCE/SCHEDULING

- a. Restore all areas to a weathertight condition each day and/or before inclement weather commences.
- b. The Contractor shall not proceed with the Work until all unsatisfactory conditions detrimental to the proper and timely completion of the Work have been corrected.

3.3. FORM SETTING

- a. Design, erect, support, brace and maintain formwork to support vertical and lateral loads that might be applied until such loads can be supported by concrete structure.
- b. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation and position.
- c. Design and fabricate formwork to be readily removable without impact, shock or damage to cast-inplace concrete surfaces and adjacent materials.
- d. Provisions for Other Trades: Provide openings in concrete formwork to accommodate work of other trades.
- e. Tolerances: Set forms with the upper edge true to line and grade with an allowable tolerance of 1/8 inch (3 mm) in any 10-foot (3 m) long section.

3.4 PLACING REINFORCEMENT

- a. Comply with CRSI's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports.
- b. Clean reinforcement of loose rust and mill scale, earth, ice, oil, concrete splatter from previous pours, and other materials, which reduce or destroy bond with concrete.
- c. Accurately position, support and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as required.
- d. Install welded wire fabric of same gauge in as long of lengths as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset end laps of adjacent widths to prevent continuous laps in either direction.

3.5 PREPARATIONS FOR PLACING CONCRETE

a. Remove water from excavations. Before placement of concrete, remove wood chips, shavings, and hardened concrete from forms.

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- i. Clean all equipment.
- ii. Wet forms, except in freezing weather, or oil forms.
- b. Earth shall be uniformly moist when concrete is placed. Sprinkling method shall not be such as to form mud or pools of water. Watering sub-grade immediately prior to placing concrete is not sufficient to make the soil uniformly moist.
- Notify other crafts to permit installation of their work. Coordinate installation of joint materials and moisture barriers with placement of forms and reinforcing steel.

3.6 CONCRETE MIX DESIGN

- a. General: Provide "Ready-Mixed" concrete, unless otherwise approved or specified; in accordance with ASTM C94. Concrete should meet the following criteria.
 - i. Compressive Strength: Minimum 4,500 PSI strength at 28 days.
 - ii. Concrete shall be gap-graded with weathered rounded coarse aggregate with 45 to 48 percent matrix.
 - iii. Water/Cement Ratio: Not greater than 0.55 by weight.
 - iv. Slump: of 3 inches.
 - v. Air content: Between 4-1/2 % and 7-1/2%.
- b. Admixtures
 - i. Use water-reducing admixture in all concrete.
 - ii. Use air-entraining admixture in exterior exposed concrete.

3,7 PLACING CONCRETE

- Notify the Architect 24 hours in advance prior to concrete placement.
- Field Inspection: Do not place concrete until forms and reinforcing steel have been inspected and approved.
 - i. Place Ready-Mix concrete within specified time after batching.
 - Below 40 degrees F (4 degrees C) See Cold Weather Placing
 - 40 85 degrees F (4 29 degrees C) 90 minutes
 - 86 90 degrees F (30 32 degrees C) 75 minutes
 - Above 90 degrees F (32 degrees C) 60 minutes
 - Concrete exceeding delivery time may be rejected by the Architect.
 - ii. Adding Water: Do not add water after initial introduction of mixing water for batch except when slump of concrete is less than that specified upon arrival at job site, and maximum water/cement ratio for mix has not been exceeded.
 - 1. Add water to bring slump within specified limits. Turn drum at least 30 additional revolutions at mixing speed. Do not add water to batch at any later time.
 - 2. Insure that concrete strength meets specified requirements, and water does not exceed maximum amount specified in 3.6 CONCRETE MIX DESIGN.
- c. General: Comply with ACI 304, and as specified herein.
 - i. Deposit concrete continuously or in layers of such thickness that concrete will not be placed on concrete, which has hardened sufficiently to cause formation of seams or planes of weakness.
 - ii. If section cannot be placed continuously, provide construction joints. Deposit concrete as nearly as practicable to its final location to avoid segregation.
- d. Placing Concrete in Forms:
 - Consolidate placed concrete by high frequency mechanical vibrating equipment, supplemented as necessary by hand-spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI 309.
 - 1. Do not use vibrators to transport concrete inside forms.
 - Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine.
 - 3. At each insertion, limit duration of vibration to time necessary to consolidate concrete, and complete embedment of reinforcement and other embedded items without causing segregation of mix.
- e. Placing Concrete Slabs: Deposit and consolidate concrete slabs in continuous operation, within limits of construction joints, until placement of panel or section is completed. Maintain reinforcing in proper position during concrete placement operations.
- f. Placing Concrete Sidewalks: Place concrete in forms in one (1) layer of such thickness that when consolidated and finished, sidewalks will be of thickness indicated.
- g. Cold Weather Placing: Protect concrete work from physical damage or reduced strength, which

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could be caused by frost, freezing actions, or low temperatures; comply with ACI 306.

h. Hot Weather Placing: When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.

3.8 CONCRETE FINISHING

a. General: Do not use tools such as jitterbugs that force the aggregate away from surface.

i. After screeding and consolidating concrete slabs, do not work surface until ready for

ii. As soon as concrete will support the cement mason on knee-boards, float the surface to bring grout to the surface, completely surrounding the aggregate and filling all surface voids. Float to a uniform appearance.

3.9 CONCRETE SURFACE REPAIRS

a. Patching Defective Areas: Immediately cut out honeycomb, rock pockets, voids over 1/4 inch (6.35 mm) in any dimension, and holes left by tie rods and bolts, down to solid concrete, but in no case to a depth of less than one (1) inch (25 mm).

i. Cut edges perpendicular to concrete surface.

ii. Thoroughly clean, dampen with water, and brush coat area to be patched with neat cement grout or proprietary bonding agent before placing cement mortar or proprietary patching compound.

Remove and replace concrete with defective surfaces if defects cannot be repaired to satisfaction

of the Architect.

- i. Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins and other projections on surface, and stains and other discolorations that cannot be removed by cleaning.
 - Dampen concrete surfaces in contact with patching concrete and brush with neat cement grout, or apply concrete bonding agent.

Mix patching concrete of same materials to provide concrete of same type of 2.

class as original concrete.

Place, compact and finish to blend with adjacent finished concrete. Cure in the same manner as adjacent concrete.

3.10 CONCRETE TRUCK DISCHARGE

a. Excess Concrete: Discharge excess concrete in mixer trucks that cannot be immediately used to area where it will not create an obstruction or hazard during construction. Dispose of excess concrete from site in a timely manner.

Wash Water Discharge: Discharge wash water from mixer trucks to ground surface in manner and at location where discharge cannot escape construction site, or be washed away to arroyos, storm

sewers, or sanitary sewers by precipitation or other surface flows.

i. Prior to project completion, dispose of wash water residue from site.

ii. Clean wash water discharge site to be free of debris.

END OF SECTION 03 30 00

PART 1 - GENERAL

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1.1. CONDITIONS OF THE CONTRACT

a. The conditions of the Contract (General, Supplementary, and Other Conditions) and the requirements of Division 1 are hereby made a part of this Section. Applicable provisions of Division 1 shall govern Work under this Section.

1.2. WORK INCLUDED

a. Unless otherwise specified, the Contractor shall furnish all materials, tools, equipment, apparatus, transportation, labor and supervision required to furnish and install all the masonry as shown on the Drawings and specified.

1.3. RELATED SECTIONS

a. Section 02 41 00 - Deconstruction

1.4. QUALITY ASSURANCE

- a. There shall be no deviation made from this Specification, the Drawings and on all approved Shop Drawings without prior written approval by the Architect.
 - i. Prior to covering newly installed Work with permanent materials, the Contractor shall coordinate with the Architect to review all installed components for compliance with the intent of the design as outlined in the drawings and specification of the Project Manual. In addition, the Contractor shall certify that all work was completed in accordance with the Project Manual.
- b. All Work shall be performed by skilled journeyman masons and laborers who are considered specialists in the field of masonry work similar to that required under this Contract.
- c. Masons shall have a minimum of five (5) years experience in this type of work.
- d. Samples (mock-ups) of typical masonry restoration work required by this Specification and as shown on the Drawings shall be installed in unobtrusive areas using materials and methods specified, and made available for viewing by the Architect and Owner. No related work shall proceed until after mock-ups have been inspected and approved by the Architect.
- e. During the workday, should the weather conditions appear to be changing adversely, the Foreman and crew shall take preventive measures to allow the work area to be closed to a weathertight condition to avoid exposure to building, equipment, and materials.
- f. Repair any Work, damaged by failure to provide proper and adequate protection, to its original state to the satisfaction of the Owner, or remove and replace with new Work at the Contractor's expense.
- g. Use of air entraining admixtures, chlorides, or nitrates, are not allowed and will be sufficient cause to require removal and replacement of all masonry restoration work containing or treated with these materials.
- h. It will be the Architect's prerogative to forbid the use of tools or methods that do not produce the quality of work that is expected and to insist on the use of methods and tools, which will do the Work properly.
- i. Construct minimum 12 inch by 12-inch prisms for testing purposes as required by the Architect.

1.5. REFERENCES

- a. References shall refer to the most recent standard.
 - i. Brick Institute of America (BIA)
 - ii. American Society for Testing and Materials (ASTM)
 - iii. Masonry Advisory Council (MAC)
 - iv. Federal Specifications (FS)

1.6. SUBMITTALS

- a. Submit product data and certificates for all replacement masonry units and mortar type.
- b. A total of three (3) copies of each submittal are required.
- Submit not less than two (2) individual samples of proposed replacement face bricks, showing extreme variations in color and texture.

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64 65 66 67 68 69 70 71 72 73 74	 d. Prism Test Reports (as required) Test reports are to be submitted to the Architect for approval. Testing and reports are to be completed by an independent laboratory. Test reports shall show: Age at test. Storage conditions. Dimensions of prism. Compressive strength of individual prisms. Coefficient of variation (v). Ultimate compressive strength of masonry (F'm) that has been corrected for the coefficient of variation (v) and the h/t of the prisms tested.
76 77	1.7. PRODUCT DELIVERY, STORAGE AND HANDLING
78 79 80 81 82	 a. Deliver all materials in their original unopened containers with all markings intact. b. Store replacement masonry units off ground to prevent contamination by mud, dust or materials likely to cause staining or other defects. c. Cover materials when necessary to protect from the elements. d. Protect masonry reinforcing from the elements.
83 84	1.8. JOB CONDITIONS
85 86 87	a. Protection of Work i. Wall covering:
88 89 90 91 92	 During erection, cover top of wall with strong waterproof protective covering at end of each day or shutdown. Cover partially completed walls when Work is not in progress. Extend protective coverings a minimum of 24 inches (610 mm) down both sides. Hold protective coverings securely in place.
93 94 95 96 97	 ii. Load application: Do not apply uniform floor or roof loading for at least 12 hours after building masonry columns or walls. Do not apply concentrated loads for at least three (3) days after building masonry columns or walls.
98	b. Staining
99 100 101 102	 i. Prevent grout or mortar from staining the face of the masonry to be left exposed. 1. Immediately remove grout or mortar in contact with the face of such masonry. 2. Protect all sills, ledges, and projections from droppings of mortar. 3. Protect door and window jambs and heads from staining or damage.
103	c. Cold Weather Protection
104 105	 i. Preparation: 1. If ice or snow has formed on replacement masonry bed, remove by carefully
106	applying heat until the top surface is dry to the touch.
107	 Remove all replacement masonry that is frozen or damaged. Products:
108 109	1. When brick suction exceeds the initial rate of absorption, sprinkle with heated
110	water.
111	A. When units are 32°F (0°C) heat water above 70°F (21°C). B. When units are below 32°F (0°C) heat water above 130°F
112 113	(54°C).
114	2. Use only dry replacement masonry units.
115	Do not use wet or frozen replacement masonry units.d. Construction requirements while Work is progressing:
116 117	d. Construction requirements while Work is progressing: i. Air temperature 40°F (4°C) to 32°F (0°C):
118	1. Heat mixing water to produce mortar temperatures between 40°F (4°C) and
119	120°F (49°C).
120 121	ii. Air temperature 32°F (0°C) to 20°F (-7°C): 1. Heat sand or mixing water to produce mortar temperatures between 40°F (4°C)
122	and 120°F (49°C).
123	2. Maintain temperatures of mortar on board above freezing.3. Use salamanders or other heat sources on both sides of walls under construction
124 125	as required to properly protect replacement masonry from freezing.
126	4. Use windbreaks when wind is in excess of 14 MPH.
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- 5. Air temperatures 20°F (-7°C) and below:
 - A. Heat mixing water to produce mortar temperatures between 40°F (4°C) and 120°F (49°C).
 - B. Provide enclosures and auxiliary heat to maintain temperature above 32°F (0°C).
 - C. Minimum temperature of new masonry units is to be 20°F (-7°C).
- iii. Protection requirements for completed replacement masonry and replacement masonry not being worked on.
 - 1. Mean daily air temperature 40°F (4°C) to 32°F (0°C):
 - A. Protect replacement masonry from rain or snow for 24 hours with weatherproof covering.
 - 2. Mean daily air temperature 32°F (0°C) to 25°F (-4°C):
 - A. Completely cover replacement masonry with weatherproof covering for 24 hours.
 - 3. Mean daily air temperature 25°F (-4°C) to 20°F (-7°C):
 - Completely cover replacement masonry with insulating blankets or equal protection for 24 hours.
 - 4. Mean daily air temperature 20°F (-7°C) and below:
 - A. Maintain replacement masonry temperature above 32°F (0°C) for 24 hours by constructing a sufficient enclosure with supplementary heat, electric heating blankets, infrared lamps or approved equal.

1.9. GUARANTEES, WARRANTIES, CERTIFICATES

a. Materials and/or workmanship shall be guaranteed against defects for a period of two (2) years from the date of Substantial Completion as established by the Architect.

PART 2 PRODUCTS

2.1. ACCEPTABLE MANUFACTURERS

- a. Provide products by Manufacturers specified herein which meet or exceed standards as set forth in this Section. No products specified or approved shall contain asbestos.
- All materials shall be new unless noted otherwise.

2.2. MATERIALS

- Not all products included in this list will be required for this project. Provide submittals only for products specifically required.
- b. Mortar: Mortar mixture ratio shall be 2.5 to 1.
- Lime Inclusions: Apply lime inclusions to finished surface of mortar joint to simulate original mortar composition.
- d. Replacement Masonry: New, severe weathering (SW) face brick units to match size and color of existing masonry. Final size and color selection shall be by Architect. Replacement masonry shall be manufactured by Belden Brick Company, Canton, Ohio, or approved equal.
- e. Lime: St. Astier NHL 3.5 (natural hydraulic lime) by TransMineral USA, Inc., Petaluma, California, (707) 769-0352.
- f. Sand: Clean, sharp, free from loam, silt, vegetable matter, salts, and other injurious substances, conforming to ASTM C144 standard. Such as by Mandt Sandfill, 2079 County Hwy MM, Fitchburg, Wisconsin 53575. Match existing in size and color.
- g. Water: Potable, fresh, clean, clear and free from injurious amounts of sewage, oil, acid, alkali, salts, organic matter or other detrimental substances.
- h. Other Materials: All other materials not specifically described but required for a complete and proper installation of the Work in this Section, shall be selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.1. EXAMINATION

a. The Masonry Contractor shall have the sole responsibility for the accuracy of all measurements and for the estimate of material quantities required and necessary to satisfy the requirements of the Drawings and these Specifications.

3.2. SEQUENCING/SCHEDULING

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Tooling

Tool exposed joints when "thumb-print" hard with a round jointer, slightly larger than width i.

Trowel-point or concave-tool exterior joints below grade.

Following at the proper interval, all new mortar joints shall be compressed and tooled with

- a. Perform only as much Work as can be restored to a weathertight condition each day or before showers commence.
- b. All related flashing work shall be completed each day.
- All other work required for a complete and proper installation per the Drawings and these Specifications that constitute a complete and proper installation shall be completed each day

3.3. SUBSTRATE PREPARATION

- a. Remove all existing materials as specified to perform the Work.
- b. Exterior masonry surfaces to remain in place shall be meticulously inspected for cracks or defects.
- Any mortar joint that is loose, porous, crumbled, cracked, badly weathered (deeper than 1/8" behind masonry surface), un-bonded to adjacent masonry units, or a potential source of leakage shall be deemed defective. All spalled, cracked, broken, or otherwise defective brick shall be removed and replaced using brick and mortar as specified herein.
- d. Included in the definition of defective shall be cracked joints that have been sealed.
- e. Any missing brick and/or mortar joints that lack mortar or has lost bond, is spalled, or broken, which can be detected from a maximum distance of ten (10) feet under clear skies during daylight times by an observer with normal vision, shall be deemed profusely defective for this Project.
- All cracks, defective, or profusely defective mortar joints shall be cut out or ground out the full width of the joint to a minimum depth of 3/4".
- Where mortar is broken or loose beyond a depth of 3/4", remove unsound mortar to where firm solid mortar is encountered prior to pointing. All joints must be cut clean of unsound mortar material in a square manner full depth of cut. Furrow shaped joints will not be acceptable.
- The cutting out of joints shall be done with suitable tools, either hand tools or mechanical equipment, in such a manner as will not loosen adjacent joints or injure the edges or corners of the replacement masonry units. Where the mortar is tightly bonded at one side of the joint, and if the contour permits, the cutting shall be done with portable electric grinders with abrasive wheels to minimize spalling at the edges of the replacement masonry units.
- After the joint has been cut out, all loose material shall be removed by brush, air jet, or water stream. Following this cleaning, the joint shall be thoroughly moistened. The joint shall be damp, but without free water on the surface at the time of pointing.
- Isolated bricks with cracks larger than 1/32" shall be deemed defective and shall be replaced.
- Facing brick, which are spalled 1/16" or greater in depth over 10 percent or more of the face area shall be removed and replaced.
- Wetting Brick: Wet brick with absorption rates in excess of 30 gal. / 30 in² / minute (30 gal. / 194 cm² / minute) determined by ASTM C67, so that the rate of absorption when laid does not exceed this amount. Recommended procedure to insure that bricks are nearly saturated when laid is to place a hose on the pile of brick until the water runs from the pile. This should be done one day before the brick are to be used. In extremely warm weather, place the hose on the pile several hours before the bricks are to be used.

3.4. GENERAL ERECTION REQUIREMENTS

- Pattern Bond
 - i. Lay new replacement masonry matching existing coursing.
 - ii. Bond unexposed replacement masonry units wythe-to-wythe by lapping at least 2" (51 mm).
- Joining of Work
 - i. Where fresh replacement masonry joins partially set masonry:
 - 1. Remove loose brick and mortar.
 - Clean and lightly wet exposed surface of set masonry.
 - Stop off horizontal run of masonry by racking back 1/2 length of unit in each course.
 - iii. Toothing is not permitted except upon written acceptance of the Architect.
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a smooth rounded iron of selected width to produce a smooth, dense surface, very slightly concave, or similar depth as typically existing, and tightly pressed against the edges of the masonry units. Complete by gently brushing the face of the joint to match existing.

- d. Flashing
 - Clean surface of masonry smooth and free from projections that might puncture flashing material.
 - 1. Install new thru-wall flashings as shown on the Drawings.
 - 2. Install thru-wall flashings per the Manufacturers recommendations.
 - 3. Place thru-wall flashings on bed of mortar.
 - 4. Cover flashing with mortar.
- e. Weep Holes
 - i. Provide weep holes in head joints in first course immediately above all flashings.
 - ii. Maximum spacing: 24 in. (610 mm) on-center.
 - iii. Keep weep holes and area above through-wall flashing free of mortar drippings.
- f. Sealant Recesses
 - i. Leave joints around outside perimeters of exterior doors, window frames and other wall openings.
 - 1. Depth: Uniform 3/4" (19 mm).
 - 2. Width: 1/4" (6.4 mm) to 3/8" (9.5 mm).
- g. Movement Joints
 - i. Locate as shown on the Drawings.
 - ii. Keep clean from all mortar and debris.
- h. Cutting Brick
 - i. Cut bricks with motor driven saw or other methods that provide cuts that are straight and true.
- i. Mortar Joint Thickness
 - i. Lay brick with joints to match existing but not to exceed 1/2" (12.7 mm).
- i. Construction Tolerances
 - i. Maximum variation from plumb in vertical lines and surfaces of wall arises:
 - 1. 1/4" (6.4 mm) in 10 ft. (3 m).
 - 2. 3/8" (9.6 mm) in a story height not to exceed 20 ft. (6 m).
 - 3. 1/2" (12.7 mm) in 40 ft. (12 m) or more.
 - ii. Maximum variation from plumb for external corners, expansion joints and other conspicuous lines:
 - 1. 1/4" (6.4 mm) in any story or 20 ft. (6 m) maximum.
 - 2. 1/2" (12.7 mm) in 40 ft. (12 m) or more.
 - iii. Maximum variation from level of grades for exposed lintels, sills, parapets, horizontal grooves and other conspicuous lines:
 - 1. 1/4" (6.4 mm) in any bay or 20 ft. (6 m).
 - 2. 1/2" (12.7 mm) in 40 ft. (12 m) or more.
 - iv. Maximum variation from plan location or related portion of walls:
 - 1. 1/2" (12.7 mm) in any bay or 20 ft. (6 m).
 - 2. 3/4" (19 mm) in 40 ft. (12 m) or more.
 - v. Maximum variation in cross-sectional dimensions of columns and thickness of walls from dimensions shown on the Drawings:
 - 1. Minus 1/4" (6.4 mm).
 - 2. Plus 1/2" (12.7 mm).

3.5. MORTAR MIXES

- a. All equipment for mixing, transporting and applying mortar shall be clean and free from hardened mortar, dirt, ice, or other foreign matter.
- b. Follow printed Manufacturers instructions for mixing preblended mortar.
- c. Measure materials for mortars by volume, in a manner whereby proportions can be controlled within five percent. The proportions listed hereinafter for conventional mortars are portland cement, lime, and damp loose sand, respectively by volume. The proportions are listed only as a sample for the required type mortar and shall be modified as necessary, within tolerances, to suit the particular masonry sand being used.
- d. Mix cementitious materials, powdered coloring admixtures and masonry sand dry. Add water and bring to proper consistency for use. Mix materials until evenly distributed throughout the batch and the mixture is uniform in color and consistency. No antifreeze ingredient or similar such contaminant will be tolerated.
- e. Tuckpointing and masonry replacement mortar shall be ASTM C270, Type "N" Lime-Cement

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Mortar (1:1:6). Mortar shall be mixed and left untouched for one to two hours. Additional water shall then be added and the mortar remixed. Mortar shall be re-tempered as necessary to maintain its workability, but used before it is three (3) hours old or otherwise discarded.

3.6. TUCKPOINTING

- a. See "3.03 Substrate Preparation" for tuckpointing general preparation requirements.
- b. With joint damp, completely filled with mortar placed in three (3) layers (lifts) and firmly pressed into place. Mortar shall be "thumb-hard" prior to placing next layer (lift).
- c. Following at the proper interval, the joint shall be tooled and finished with a smooth ribbon joint similar to existing and tightly pressed against the edges of the masonry units. Complete by striking the joint with a churn brush once the mortar is sufficiently hard.
- d. All necessary protection shall be provided to prevent damage to the adjoining construction.

3.7. CLEANING

- a. Cut out any defective joints and holes in exposed masonry and re-point with mortar.
- b. Clean all exposed unglazed masonry.
 - i. Apply cleaning agent to sample wall area of 20 sq. ft. (2 sq. m) in location acceptable to the Architect.
 - ii. Do not proceed with cleaning until the Architect approves sample area.
 - iii. Clean initially with stiff brushes and water.
 - iv. When cleaning agent is required:
 - 1. Follow brick Manufacturer's recommendations
 - Do not use acid solutions to clean materials that might stain or dissolve with its use.
 - 3. Thoroughly wet surface of masonry on which no green efflorescence (staining) appears.
 - Scrub with acceptable cleaning agent.
 - 5. Immediately rinse with clean water.
 - 6. Do small sections at a time.
 - 7. Work from top to bottom.
 - 8. Protect all sash, metal lintels and other materials susceptible to damage when masonry is cleaned with an acid solution.
 - Remove green efflorescence (staining) in accordance with brick manufacturer's recommendations and BIA "Technical Notes 23 Series."

END OF SECTION 04 01 20

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PART 1 - GENERAL

1.1. SCOPE

a. The work under this section shall consist of providing all materials, labor, equipment, tools, protection and supervision necessary for the mobilization; select removal of entire stone units; deconstruction; stone harvesting, redressing and cleaning for reuse; cleaning; wall reconstruction; rebuilding of missing features with substitute stone material; stone surface redressing in situ; stone crack injection; stone crack mortar repair; stone removal and replacement with new stone; stone removal and replacement with harvested stone.

1.2. RELATED WORK

a. Applicable provisions of Division 1 shall govern work under this Section.

1.3. DESCRIPTION

- a. In addition to all other requirements, all work of this Section shall be performed under the guidelines of the Secretary of the Interior's Standards for the Treatment of Historic Properties and must comply with the Secretary of the Interior's Standards for Rehabilitation.
- b. The intent of this Section is:
 - i. To carefully deconstruct the existing wall in successive segments.
 - ii. To save as much of the historic material as possible.
 - iii. To repair all deteriorated stone that is deemed to be suitable for reuse.
 - iv. That all repair and replacement materials will match historic construction in all physical and visual aspects, including material, compressive strength, permeability, form, color, texture, and workmanship.
 - v. That all work will be done using the gentlest methods available.
 - vi. That sound historical materials will not be put at risk due to the work of this Section.

Work includes, but is not limited to, the following:

- i. Removal of all cement-based mortar smears from the stone surfaces.
- Removal of all previous cement-based repairs and mismatching substitute stone repair materials as determined by Architect.
- iii. Replacement or repair chipped, cracked, spalled and broken stone masonry.
- iv. Removal of existing sealant debris and oils from stone surfaces (if present).
- v. Careful harvesting of existing historic stone masonry by deconstruction with clear written and digital documentation of original wall location.
- vi. Stone rehabilitation treatment by means of redressing face; removal of stone from the wall redress and returning to the same zone adhering closely to the original historic masonry design concept; dispersed lime injection.
- vii. Cleaning of all masonry surfaces upon completion of the repair work.

1.4. QUALITY ASSURANCE

- a. Pre-Construction Conference: Prior to beginning the work of this Section, the General Contractor and all Masonry Sub-contractors shall convene a meeting with the Architect and Owner's Representative(s) to review the requirements of the Quality Assurance Plan, Project Training Program, installation procedures, location of required test areas, and all job conditions and processes.
- b. Quality Assurance Plan: Prior to beginning Work, submit a written Quality Assurance Plan to Architect and Owner for approval. Allow 2 weeks for review and approval process. Do not proceed without written approval of plan. The Owner's Quality Control Representative and the Architect shall review work on a regular basis for conformance with the approved Quality Assurance Plan. Quality Assurance Plan shall, at a minimum, include the following items:
 - i. Describe on-site project training program. Include certificate issuer name and qualifications with the specific requisites established to meet the stone treatment requirements (STR) identified in the project documents.
 - ii. Describe the method of mobilization and access to work areas.
 - iii. Describe methods of dust containment during the work of this section.
 - iv. Describe the methods of protecting surrounding stone and landscape. Submit drawings of protection when requested by Architect.

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- v. Describe the Work procedures, materials, and tools the contractor proposes to use for each stone treatment requirement (STR) specified.
- vi. Describe the sequence of stone treatment requirements (STR).
- vii. Describe how the sequence of stone treatment requirements (STR) and the construction schedule changes as it relates to climate fluctuations and protection of completed work.
- viii. Describe the methods for surveying original layout and collecting datum points and plumb lines for rebuilding stone masonry.
- ix. Describe the methods for shoring and providing a safe working environment.
- x. Describe the methods for deconstruction of individual stone and tools for cleaning the stone for reuse.
- xi. Describe the method and approach to cleaning cement-based mortar smears and old patching materials from the stone face.
- xii. Describe, in detail, the matching procedures relating to techniques and tools proposed for stone redressing.
- xiii. Describe the complete stone removal and redressing procedures; include equipment, approach and where (on-site or in shop) the stone will be redressed.
- xiv. Describe the procedure for matching of different colors on different elevations.
- xv. Describe the procedure for mixing and matching of substitute stone materials.
- Describe the methods and system by which the use of reclaimed stone can be utilized.
- xvii. Describe the methods for setting stone back into wall for rebuilding the wall and maintaining the original bonding and course layout concept.
- xviii. Describe the methods of transition points where rehabilitation work will meet the original historic work.
- xix. The City of Madison reserves the right to remove any craftsman from the project site who does not meet the standards and performance criteria as described in this section.
- c. Stone Rehabilitation Firm Qualifications:
 - i. Engage an experienced masonry rehabilitation firm to perform work in this section. The firm shall have completed work similar in material, design, and extent to that indicated for this Project and shall demonstrate a record of successful in-service performance. Proven implementation of the Secretary of the Interior's Standards for Rehabilitation: Preservation Briefs #1 and #2 and compliance with TMS 402-08/ACI 530-08/ASCE 5-08 are required.
- d. Field Supervision:
 - i. Rehabilitation specialist firms shall maintain an experienced full-time supervisor on the Project site at all times when stone masonry rehabilitation is in progress. A single individual shall be responsible for supervising the stone masonry rehabilitation work throughout the duration of the Project.
- e. Rehabilitation Worker Qualifications:
 - Rehabilitation specialist firms must employ craftspersons who are experienced with and specialize in rehabilitation work of the types they will be performing.
 - ii. All rehabilitation treatments must be performed by a craftsperson who is familiar with historic stone construction. The Contractor shall provide proof of such knowledge to the Architect by submitting a project training certificate for each worker for each rehabilitation treatment to be assigned.
 - iii. Only skilled journeyman masons who are familiar with and experienced with the materials and methods specified, and who have successfully obtained a Project Training Certificate as defined herein and are familiar with the design requirements shall be used for the scope of this Section.
- f. Source Limitations:
 - Each type of material for stone rehabilitation shall be obtained from a single source with resources sufficient to provide materials of consistent quality in color, texture, detailing, appearance and physical properties.
- g. Stone Analysis and Testing:
 - i. Applicable ASTM Testing and analysis shall be performed on both the existing historic stone and any new stone or reclaimed stone proposed for replacement. All testing shall meet industry standards and be carried out by an independent laboratory with experience in historic masonry materials. The Contractor shall be responsible for providing the Architect with technical test data documenting, at a minimum, the compressive strength ASTM Test C170 and rate of absorption ASTM Test C97 in comparison to the original historic stone.

FOREST HILL CEMETERY – MASONRY REPAIRS TO THE RECEIVING VAULT & CHAPEL CITY OF MADISON CONTRACT # 7030

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- h. Stone Treatment Mock-ups:
 - i. All submittals as noted herein shall be submitted and approved prior to the creation of mock-ups. Consult the Architect for placement, size, and location of mock-ups. Mock-ups shall demonstrate to the Architect and Owner the methods and quality of workmanship to be performed in all stone treatments.
 - Prepare mock-ups directly adjacent to the existing historic wall and on City of Madison property under the same weather conditions expected during the remainder of the work.
 - Throughout rehabilitation, retain approved mock-up panels in undisturbed condition, suitably marked, as a standard for judging completed work.
 - iv. Mock-ups shall include separate treatments, as called out on the drawings and related specification Sections. These are as follows:
 - 1. Substitute Stone Repair Substitute stone material repair on at least 2 stones. Include one stone on which to demonstrate proficiency in removing previous patching material and repairing with new substitute stone material.
 - Crack Repair Repair one crack, two feet in length, using mortar. Repair one crack, two feet in length, using dispersed hydrated lime injection technique with spachal surface treatment.
 - 3. Repointing Mortar Installation Repoint mortar joints, twelve feet in length -2/3 horizontal joints and 1/3 vertical joints.

1.5. SUBMITTALS

- Submit the following items in time to prevent delay of the work and to allow adequate time for review. Do not order materials or start work before receiving written approval.
- b. Submit samples of all specified materials and Material Safety Data Sheets (MSDS) as appropriate.
- c. Submit test results from all ASTM testing analyses as described in Quality Assurance.
 - i. Preferred Vendor: Flood Testing Laboratories, Inc., Chicago, Illinois.
- d. Quality Assurance Plan
 - i. Submit written plan as outlined in the Quality Assurance Section for the work of this Section.
- e. Stone Samples for Verification
 - i. Before erecting mockup, submit samples of the following:
 - 1. Stone Replacement Full New Stones Full new stones shall meet specification requirements for color texture, density, technical performance, and stone type.
 - 2. Stone Replacement Cut Stones Create each profile for review and approval.
- f. Substitute Stone Repair Material Provide at least two samples for patching material that will match the existing stone. Patching shall match existing stone; therefore, multiple submittals are expected. Substitute stone repair material will not be permitted to be applied in missing areas of more than 2 inches.
- g. Dispersed Hydrated Lime Submit dispenser manufacturer's written instructions for maintaining the equipment and the ratio accuracy.
- h. Qualification Data for Stone Rehabilitation Firm The firm must submit written documentation of at least 10 individual projects completed in the last 15 years for which they have been the primary masonry specialist. Work must be performed by a contractor with 15 years' documented successful experience in comparable historic stone masonry rehabilitation projects in size, age and material and who employs personnel skilled in the rehabilitation treatments and rehabilitation process and operations indicated.
 - i. The written submission must include the following:
 - 1. Name and address of project
 - 2. Name, address and phone numbers of Client
 - 3. Date of project completion
 - Age of structure and whether it was listed on the National Register of Historic Places or is designated as a Historic Landmark
 - How the work scope was specifically delivered to comply with the Secretary of the Interior's Standards for Rehabilitation
 - 6. Size of the project, in terms of square feet of stone masonry restored
 - 7. List of materials (including names and manufacturers) used on project
- i. Qualification Data for Field Supervisor –The firm must submit written documentation of at least 10 projects that the Field Supervisor has supervised. The projects may include those that were completed under the employment of a different firm. The list must include projects that are similar in size, age and material to the current project. All stone treatments must be performed and supervised by craftspersons who are familiar with historic stone masonry construction.
 - i. The written submission must include the following:

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- 1. Name and address of project
- 2. Name, address and phone numbers of Client
- 3. Date of project completion
- 4. Size of the project, in terms of square feet of stone masonry required
- 5. List of materials (including names and manufacturers) used on project
- 6. Name(s) of firm(s) the work was performed under, if different from submitting firm
- 7. Proof of expertise in historic stone masonry, as indicated by a rehabilitation treatment certificate from the training program defined in this specification
- j. Qualification Data for Workers The firm must submit the name of each craftsperson who will be assigned to this project. Only skilled journeyman masons, trained and certified by the historic masonry consultant, shall be used for masonry rehabilitation. All stone treatments must be performed and supervised by craftspersons who are familiar with historic stone masonry construction.
 - i. Include the following:
 - 1. Name of craftsperson
 - 2. Position craftsperson will hold on this project
 - 3. Number of years working as a masonry rehabilitation specialist
 - 4. Proof of expertise in historic stone masonry, as indicated by a project certificate from the training program defined in this specification
 - 5. Submit digital photographic documentation proposed procedures

1.6. SUBSTITUTIONS

- a. If alternatives to the methods and materials indicated are proposed for any phase of rehabilitation work, the Contractor shall provide written descriptions and programs of testing and install all test panel samples and mock-ups to demonstrate the effectiveness of the alternatives for use on this project.
- b. The Contractor must provide documentation showing compliance with the requirements for substitutions and the following information:
 - i. Coordination information, including a list of changes to other work that will be necessary to accommodate the substitution
 - ii. A comparison of the substituted products and materials with the specified products and methods, including performance, weight, size, durability, and visual effect.
 - iii. Certification that the substitution conforms to the contract documents and is appropriate for the applications indicated. Material substitution requests must be accompanied by independent laboratory test reports from a lab designated by the Architect to establish equivalent performance levels and specification compliance. The Architect shall designate the testing lab, and the party requesting the substitution shall pay for testing.

1.7. PRODUCT DELIVERY, STORAGE AND HANDLING

- a. Deliver and store materials in manufacturer's original unopened containers bearing labels indicating the grade, batch, production data, type, and names of products and manufacturers.
- b. During storage and construction, protect rehabilitation materials from wetting by rain, snow or ground water, and from staining or intermixture with earth or other types of materials.
- c. Protect stone and other materials from deterioration by moisture and temperature. Store stone in a dry location or in waterproof containers. Keep stone on pallets. Do not shrink wrap stone on pallets.
- d. Comply with product manufacturer's recommendations for minimum and maximum temperature requirements for storage.
- e. Comply with the manufacturer's written specifications and recommendations for application and installation.
- Store all materials in a location that will not impede the progress of the work.

1.8. PROJECT CONDITIONS

- a. Do not perform any masonry work unless air temperatures are between 40 degrees Fahrenheit (10 degrees Celsius) and 95 degrees Fahrenheit (32 degrees Celsius) and will remain so for at least 120 hours after completion of the work. To prevent premature evaporation of the mortar, phase masonry work during hot weather by completing the process on the shady side of the wall or by scheduling installation of materials during cooler evening hours.
- b. Do not use frozen materials or materials mixed or coated with ice or frost. Do not lower the freezing point of mortar by the use of admixtures or anti-freeze agents, and do not use chlorides in the mortar.

- c. Prevent mortar from staining the face of the masonry or other surfaces to be left exposed. Immediately remove all mortar that comes in contact with any surface.
- d. Cover partially completed work when work is not in progress.
- e. Protect projections from droppings.
- f. Damage occurring to the structure as a result of the Contractor's failure to protect against such damage shall be the Contractor's responsibility. The contractor shall restore damaged areas to the complete satisfaction of the Architect at no expense to the Owner.
- g. Cold-Weather Requirement for masonry repair and mortar:
 - i. Follow ACSI 530 and manufacturers written installation requirements.
- h. Hot-Weather Requirements:
 - i. Protect masonry repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water. Provide artificial shade and wind breaks and use cooled materials as required. Do not apply mortar to substrates with temperatures of 90 degrees Fahrenheit and above.

1.9. ATTIC STOCK

- a. Provide the following products and amounts for Owner attic stock:
 - Rehabilitation Mortars At least 2 gallons of unopened containers of each type of mortar used.
 - Substitute Stone Repair Materials At least 1 gallon of unopened containers for each type of patching material used.

PART 2 - PRODUCTS

2.1. MANUFACTURERS

- a. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:
 - i. Products: Subject to compliance with requirements, provide one of the products specified.
 - ii. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2. SUBSTITUTE STONE REPAIR MATERIALS

- a. Substitute Stone Repair Material: Must use only mineral-based, single component products that contain natural binders; no synthetic polymers or additives are permitted. Substitute stone material must be pre-mixed in a quality controlled factory, with only the addition of water required at the site prior to installation.
- b. Acceptable material:
 - i. HS15 Heritage Sandstone Repair Mortar manufactured and distributed by U.S. Heritage Group, Inc., Chicago, Illinois
 - ii. Jahn Sandstone Repair Mortar, Cathedral Stone Products, Jessup, Maryland
 - iii. Jahn Limestone Repair Mortar, Cathedral Stone Products, Jessup, Maryland
- c. Substitute Stone Repair Material shall be custom colored to match the existing stone and produced in a quality controlled factory environment.
- d. No field mixing of color pigments into the repair materials is permitted on-site.
- e. No color staining of existing stone or newly applied repair materials is permitted.
- f. Apply substitute stone materials to areas no more than 2 inches in depth and 3 inches wide.

2.3. STONE REPLACEMENT MATERIAL

- a. The Contractor shall use replacement stone that is compatible to the existing stone in appearance, color and texture, as well as in compressive strength (as specified in ASTM C170), density (ASTM C97), absorption (ASTM C97), and permeability (ASTM C97). The Contractor shall verify compliance with the specifications, and must transport the stone from its location to the building site at his expense. If the reclaimed stone is not deemed acceptable, then the following manufacturers may be contacted for samples:
 - i. Quarra Stone Company, LLC, Madison, Wisconsin
- b. The replacement stone for removed sandstone is Wisconsin Dolomitic Limestone, Glacier Buff.
- Mortar for laying replacement stone: Mortar shall be the same as the repointing mortar, as defined in this Section.

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2.4. CRACK INJECTION MATERIAL

a. Crack Injection Material:

- Dispersed Hydrated Lime DHL-IM Injection Mortar distributed by U.S. Heritage Group, Inc., Chicago, Illinois
- ii. Approved equal.

2.5. ALL MORTAR MATERIALS

- Repointing mortar shall be prepared and placed in accordance with the Department of the Interior National Park Service Cultural Resources Preservation Briefs 2, "Repointing Mortar Joints in Historic Masonry Buildings",
- Revised edition October 1998, and in compliance with the guidelines set forth by the Secretary of the Interior's Standards for Rehabilitation.
- c. The repointing mortar shall match the original in color, grain size and texture. The compressive strength of the repointing mortar shall be equal or less than the compressive strength of the original mortar and surrounding stone. The replacement mortar shall contain approximately the same ingredient proportions of the original mortar.
- d. All replacement mortar ingredients and mortar formulations have been established from test data gathered from the original materials sampled from site.
- e. Mixing of individual mortar ingredients at the construction site will not be permitted.
- Repointing mortars shall be preblended (including water) in single containers in a factory-controlled environment.
- g. All ingredients will be converted from volume measurements to weight measurements to ensure quality production of the mortar.
- h. All containers shall be marked including manufacturing date and batch number. Manufacture is required to maintain production-sampling procedures for each batch for quality control purposes. Manufacturer to provide samples of proposed materials for mock up panels at the site. All preblended products are to meet applicable ASTM standards and project specification requirements.
 - i. Preblended Mortar Materials Contact: U.S. Heritage Group, Inc., Chicago, IL
 - ii. Approved equal.
- i. The use of admixtures of any kind in the pre-blended mortar is strictly forbidden.

2.6. OTHER MATERIALS

- a. Replacement limestone shall match existing in size, profile, grade, color, and finish.
- b. Shims: 2 inch by 4 inch by 1/16 inch, 1/8 inch, and 1/4 inch, plastic shims as manufactured by Racknow Polymers and distributed by Lance Construction Supplies, Inc., Chicago, Illinois, or approved equal.
- c. Strap Anchors: "No. 141 U-Type Stone Anchor," 8 inches long by 1-1/4 inch wide with a 7/8 inches bend (Interior dimension). 16 gauge or 0.625 inch (1/16 inch) thickness, stainless steel conforming to ASTM A 167, AISI Type 304, as manufactured by Heckmann Building Products, Inc., Melrose Park, Illinois.
- d. Dowels (Pins): 3/8 inch diameter by 4 inch long, smooth finish, stainless steel, conforming to ASTM 267, AISI Type 304 or 316.
- e. Mortar: Mortar mixture ratio shall be 2.5 to 1.
- f. Lime: St. Astier NHL 3.5 (natural hydraulic lime) by TransMineral USA, Inc., Petaluma, California, (707) 769-0352.
- g. Sand (as required): Clean, sharp, free from loam, silt, vegetable matter, salts, and other injurious substances, conforming to ASTM C144 standard. Such as by Mandt Sandfill, 2079 County Hwy MM, Fitchburg, Wisconsin 53575. Match existing in size and color.
- h. Water: Potable, fresh, clean, clear and free from injurious amounts of sewage, oil, acid, alkali, salts, organic matter or other detrimental substances.
- i. Limestone Rehabilitation Mortar: "Mimic" trowel applied, color matched, single component limestone repair mortar as manufactured by Conproco Corporation, or approved equal.
- j. Other Items: All other materials not specifically described but required for a complete and proper installation of the Work in this Section, shall be selected by the Contractor subject to approval by the Architect.

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PART 3 - EXECUTION

3.1. EXAMINATION

- The Contractor shall have the sole responsibility for the accuracy of all measurements and for the estimate of material quantities required and necessary to satisfy the requirements of these Specifications. It is the intent of this project to salvage, preserve and reuse existing stone to the greatest extent possible.
- Should replacement stone be required due to irreparable damage; match all physical properties including color, texture and size of existing stone.
- Verify that installation conditions are satisfactory to receive work of this Section.
- Do not proceed until unsatisfactory conditions have been corrected.
- Beginning work constitutes the Contractor's acceptance of conditions as satisfactory.
- During deconstruction, as well as rehabilitation operations, restore all areas to a weathertight condition each day and/or before inclement weather commences.

3.2. SUBSTITUTE STONE REPAIRS

- Substitute stone repairs require a moldable, plastic filled material applied directly to the loss area and set into place by its own adhesion to the stone substrate. Such stone repair mortars and putties are typically offered by manufacturing companies that do not sell stone.
- Substitute stone material may not be installed in thicknesses exceeding 2 inches. Stone repairs in excess of 2 inches thick will require reconfiguring the stone in lieu of performing other repairs.
- Remove all loose mortar and masonry prior to installation of the substitute stone material, "Sound" the masonry with a hammer to verify its integrity. If necessary, cut away an additional 1/2" of the stone substrate to ensure the surface to be repaired is solid and stable. Remove any sealant residue.
- Cut out all cramp anchors, threaded rod anchors and/or dowels within the damaged masonry area. Any anchors that are free of rust, solidly embedded, and do not project beyond the solid masonry surface may remain. All others should be removed.
- Using clean water and a scrub brush, clean all dust from surface and pores of the substrate.
- For very dry or porous surfaces, pre-wet the substrate ahead of time to prevent the substrate from drawing moisture out of the repair too quickly. Re-wet the surface immediately before applying the repair material.
- Use methods established in project training program to deliver the substitute stone repair work as demonstrated and approved by the Architect and Owner.
- Only rehabilitation technicians that hold a Project Training "Substitute Stone Certificate" will be permitted to work on the scope of this stone repair treatment as defined.
- Curing methods vary in different parts of the country and at different times of the year, calling for different amounts of water to be used in the first 36 hours after application. Adjustments also have to take into account how much time is remaining before freezing weather occurs.
- Follow all manufacturers' instructions pertaining to the placement of materials. If the manufacturer requires that installers of a specified product be trained, provide this documentation to the Architect and supporting documentation. Training certificates previously issued by product companies for the application of specified products may not be substituted for the Project Training "Substitute Stone Certificate" on this project. Applicators previously trained by product companies are encouraged to work on this specific scope, but it is not a mandatory requirement of this specification, only that of the product company to ensure the proper placement of the materials.

3.3. FERROUS ANCHOR BOLT REMOVAL

- a. Remove masonry anchors, brackets, wood nailers, and other extraneous items no longer in use unless identified as historically significant or indicated to remain.
- Remove items carefully to avoid spalling or cracking masonry.
- If item cannot be removed without damaging surrounding masonry, cut off item flush with surface and core drill surrounding masonry and item as close around item as practical.

3.4. STONE PLUG REPAIR

a. At locations where ferrous anchor bolts and the like are removed prepare a replacement plug by core-drilling replacement stone. Use a drill sized to produce a core that will fit into hole drilled in damaged stone with tolerances of no more than +/- 1/16 inch.

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- b. Adhere the repair piece with lime putty or lime putty mortar and clamp so the seam may cure. Prior to adhering with lime putty, the new piece of stone shall be carved and refined to match the surface of the adjacent original stone in both profile and finish. This step is necessary to allow a virtually invisible replacement repair.
- Use methods established in project training program to deliver acceptable repair work as demonstrated and approved by the Architect and Owner.

3.5. REMOVE, REDRESS AND RETURN

- a. Before removing any deteriorated masonry units establish bonding patterns, levels and coursings. Label each unit, numbered on drawings, for this treatment to correspond. Intent of label is to ensure return of stone to same location and bond pattern.
- b. Carefully remove units in gentlest means necessary for reinstallation at the same location.
- c. Scale off all loose pieces of original stone from masonry intended to be removed, redressed and returned, including surface material in powder or granular form and detachments of planer elements, spalls and chips. Contractor shall sound all stone on building by using the "ring test method" in order to distinguish fully intact stone from those in which delamination may be hidden or pieces of unstable material may not be immediately visible.
- d. Remove mortar, loose particles, and soil from stone by cleaning with hand chisels, needle scalers, brushes, and water.
- e. Remove sealants by cutting close to stone with utility knife and cleaning with solvents.
- f. Use methods established in project training program to redress the stone surface to match the original surface textures and profiles as approved by the Architect and Owner and as required.
- g. It is the intention of this treatment to avoid introducing products to the face of the stone merely to enhance the look and color of the surface.
- h. Reset unit plane or plumb with the surrounding stone masonry surfaces. The maximum open space behind the returned stone unit is equal half of the stone's depth. Notify Architect for alternate stone treatment repair if open space exceeds permissible depth. No infill will be permitted behind stone.
- i. Butter vertical joints for full width before setting and set units in full bed of mortar, unless otherwise indicated.
- j. Rake out mortar used for laying stone before mortar sets and point new mortar joints in repaired area to comply with requirements for repointing existing stone, and at same time as repointing of surrounding area.
- k. Only rehabilitation technicians that hold a Project Training "Remove, Redress and Return Certificate" will be permitted to work on the scope of this stone repair treatment as defined.

3.6. STONE REMOVAL AND REPLACEMENT

- a. When directed, remove stone that has deteriorated or is damaged beyond repair. Carefully demolish or remove entire units from joint to joint, without damaging surrounding stone, in a manner that permits replacement with full size units.
- b. Sort stone by size and zone for future use.
- c. Support and protect remaining stonework that surrounds removal area and adjoining construction in an undamaged condition.
- d. Remove in an undamaged condition as many whole stone units as possible.
- e. Remove mortar, loose particles, and soil from stone by cleaning with hand chisels, needle scalers, brushes, and water.
- f. Remove sealants by cutting close to stone with utility knife and cleaning with solvents.
- g. Reuse salvaged stone to the fullest extent possible. Integrate new replacement stone in concealed areas or shielded from public view.
- h. Deliver cleaned stone not required for reuse to Owner.
- i. Clean stone surrounding removal areas by removing mortar, dust, and loose particles in preparation for replacement.
- j. Only rehabilitation technicians that hold a Project Training "Stone Removal and Replacement Certificate" will be permitted to work on the scope of this stone repair treatment as defined.
- k. Replace removed stone with other removed stone, where possible, or with new stone matching existing stone, including size. Butter vertical joints for full width before setting and set units in full bed of mortar, unless otherwise indicated.
- Rake out mortar used for laying stone before mortar sets and point new mortar joints in repaired area to comply with requirements for repointing existing stone, and at same time as repointing of surrounding area.

3.7. CRACK INJECTION

General: Comply with the Dispersed Hydrated Lime manufacturer's written instructions.

- a. Those cracks designated on drawings, where stone is soundly bonded but cracked, shall be injected. Unless otherwise noted, the intent of this specification is for the designated cracks to be injected their full lengths, not just locally where markings are noted on drawings.
- b. The contractor shall diligently carry out the manufacturer's installation requirements and advise the Architect and Owner as to when and where the installation will occur, so that their representatives can observe them. At such time, the contractor shall provide resin samples from the dispenser during the course of the injection. Samples shall not exceed three fluid ounces.
- c. Drill 1/4-inch- (6-mm-) diameter, downward-sloping injection holes as follows:
 - i. Transverse Cracks Less Than 3/8 inch (10 mm) Wide: Drill holes through center of crack at 12 to 18 inches (300 to 500 mm) o.c.
 - ii. Transverse Cracks More Than 3/8 inch (10 mm) Wide: Drill holes through center of crack at 18 to 36 inches (500 to 1000 mm) o.c.
 - iii. Drill holes 2 inches (50 mm) deep. Where possible, drill holes in mortar joints.
- d. Clean out drill holes and cracks with compressed air and water. Remove dirt and organic matter, loose material, sealants, and failed crack repair materials.
- Place plastic injection ports in drilled holes and seal face of cracks between injection ports with clay
 or other non-staining, removable plugging material. Leave openings at upper ends of cracks for air
 release.
- f. Only rehabilitation technicians that hold a Project Training "Crack Repair Certificate" will be permitted to work on the scope of this stone repair treatment as defined.
- g. Inject Dispersed Hydrated Lime through ports sequentially, beginning at one end of area and working to opposite end; where possible begin at lower end of injection area and work upward.
- h. Inject Dispersed Hydrated Lime until it extrudes from adjacent ports. After port has been injected, plug with clay or other suitable material and begin injecting filler at adjacent port, repeating process until all ports have been injected.
- i. Clean Dispersed Hydrated Lime from face of stone before it sets by scrubbing with water.
- After Dispersed Hydrated Lime has set, remove injection ports, plugging material, and excess filler.
- k. Patch injection holes and surface of cracks as specified in "Substitute Stone Repairs" Article.

3.8. POINTING OF MORTAR JOINTS IN STONE

- a. Walls should be presoaked with water 10 minutes prior to pointing or as weather conditions dictate. Walls should be misted with water for duration of at least 3 minutes at the end of the day after initial installation. Keep newly pointed wall moist for a minimum of 3-days after installation, including weekends and holidays. 3 times per day minimum morning, noon and night.
- b. Rinse stone joint with water to remove dust and mortar particles. Time the rinsing application so that at the time of pointing excess water has evaporated or run off. Joint surfaces should be damp but free from standing water.
- c. Mortar shall be pre-mixed by approved manufacturer. The mortar material shall resemble the consistency of brown sugar during installation. This drier consistency enables the material to be tightly packed into the joint and allows for cleaner work and prevents shrinkage cracks as the mortar cures.
- d. Joints should be pointed in layers or "lifts" where the joints are deeper than 1-1/4 inch. Apply in layers not greater than 1/2 the depth but not more than 1-1/4 inch or until a uniform depth is formed. Compact each layer thoroughly and allow it to become thumbprint hard before applying the next layer.
- e. Lift examples:
 - i. 3/16" joint depth (1/16" joint existing) point in one lift
 - ii. 5/16" joint depth (1/8" joint existing) point in one lift
 - iii. 5/8" joint depth (1/4" joint existing) point in one lift
 - iv. 5/16" joint depth (3/8" joint existing) point in one lift
 - v. 1-1/4" joint depth (1/2" joint existing) point in one lift
 - vi. 1-7/8" joint depth (3/4" joint existing) point in two lifts approx.-1" (each)
 - vii. 2-1/2" joint depth (1" joint existing) point in three lifts approx. +3/4" (ea.) over 2-3/4 joint depth- point in lifts of no more than 1-1/4" (each)
- f. Point all mortar joints to a flat double trowel cut/stipple finish profile.
- g. When mortar is thumbprint hard the joints shall be finished to match the original historic joint profile.
- h. Keep mortar from drying out too quickly. Protection from direct sun, high winds for the first 72 hours

FOREST HILL CEMETERY – MASONRY REPAIRS TO THE RECEIVING VAULT & CHAPEL CITY OF MADISON CONTRACT # 7030

DIVISION 4 - MASONRY SECTION 04 01 40 - STONE REHABILITATION

568 569 570 571	i.	after installation. Thoroughly soak the wall a minimum of three times per day for the first 3 days. Protect freshly pointed areas with plastic sheeting for the first 24 hours after installation. Where pointing work precedes overall cleaning of existing masonry, allow mortar to harden at least 30 days before beginning cleaning work.
572 573	3.9 FINISH	ING TECHNIQUES
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575	a.	Acceptable finishing techniques for redressing, substitute stone and crack repair will be defined
576		during the demonstration and test panel work which is part of the training program as approved by
577		the Architect and Owner.
578	b.	Do not create vibrations in the wall to dislodge or separate bond from previously completed work.
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580	3.10. CLEA	ANING
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582	a.	After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and
583		foreign matter; use wood scrapers, stiff-nylon or fiber brushes, and clean water, spray applied at
584		low pressure.
585	b.	Do not use metal scrapers or brushes.
586	C.	Do not use acidic or alkaline cleaners.
587	d.	Wash adjacent non-masonry surfaces, if applicable. Use detergent and soft brushes or cloths.
588	e.	Sweep and rake adjacent pavement and grounds to remove masonry debris. Where necessary,
589		pressure wash surfaces to remove mortar, dust, dirt, and stains.
590		
591		END OF SECTION 04 01 40

Appendix

Zone C1 Rehabilitation Codes

Zone C2 Rehabilitation Codes

Zone C3 Rehabilitation Codes

Zone C4 Rehabilitation Codes

Zone C5 Rehabilitation Codes

Zone C6 Rehabilitation Codes

Zone C7 Rehabilitation Codes

Zone C8 Rehabilitation Codes

Zone T1 Rehabilitation Codes

Zone T2 Rehabilitation Codes

Zone T3 Rehabilitation Codes

Zone T4 Rehabilitation Codes

Zone V1 Rehabilitation Codes

Zone V2 Rehabilitation Codes

Zone V3 Rehabilitation Codes

Zone V4 Rehabilitation Codes

Zone C1 Rehabilitation Codes

Zone C1 Rehabilitation Codes

21	01	01 ABCDEFG
	0.2	

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

C1	02	01 ABCDEF	G
O.	02		Π

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

C1	02	10 ABCDEF	G
	-		

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

1 03 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

- C1 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 03 10 ABCDEFG C1 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 11 ABCDEFG C1 Replace existing stone with new, match existing in color, texture and all other physical properties. 03 12 ABCDEFG C1 No work required at stone - 100% tuckpoint all wall areas. C1 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 02 ABCDEFG C1 Replace existing stone with new, match existing in color, texture and all other physical properties. C1 Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas. 04 ABCDEFG C1 No work required at stone - 100% tuckpoint all wall areas.
- Carefully remove stone, redress, refinish and reinstall 100% tuckpoint all wall areas.

05 ABCDEFG

C1

1 04 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

1 04 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 04 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 04 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

:1 05 01 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

.1 05 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

1 05 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 05 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 05 05 ABCDEFG

C1	05	06	A B	C	D	Ε	F	G
<u> </u>	0,5	00						

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

C1 06 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C1 06 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

C1 06 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

21 06 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

1 06 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:1 07 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 07 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 07 03 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

1 07 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 07 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 07 06 ABCDEFG

C1	07	07	ΑВ	С	D	Ε	F	G
C.L	0,	07	1	1				

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

01 08 04 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

08 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

08 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 08 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 08 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 08 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 08 10 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

1 08 11 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

1 08 12 ABCDEFG

C1	ΛR	12	A B	C	DE	F	G
C .	00	1.5	V	[П	\mathbb{T}	

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

C1 09 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C1 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C1 09 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C1 09 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

1 09 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 09 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 09 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 09 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:1 09 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:1 09 12 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:1 09 13 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 09 14 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:1 09 15 ABCDEFG

C1	09 16 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C1	10 01 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C1	10 02 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C1	10 03 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C1	10 04 ABCDEFG
(No work required at stone - 100% tuckpoint all wall areas.
C1	10 05 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	10 06 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	10 07 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	10 08 ABCDEFG

75 - 75 - 75

1 10 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

11 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 11 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

11 03 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

1 11 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 11 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 11 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 11 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

1 11 08 A B C D E F G

C1	11	09 ABCDEFG
	Ca	arefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	11	10 ABCDEFG
	Ca	arefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	11	11 ABCDEFG
	Ca	refully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	12	01 ABCDEFG
٠	Ca	refully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	12	02 ABCDEFG
	Ca	refully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	12	03 ABCDEFG
	Car	refully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	12	04 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C1	12	05 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C1	12	06 ABCDEFG

12 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

12 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

12 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 12 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

12 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

12 12 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

12 13 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

13 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:1 13 02 ABCDEFG

C1	13 03 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	13 04 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C1	13 05 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	13 06 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C1	13 07 ABCDEFG
ĺ.	No work required at stone - 100% tuckpoint all wall areas.
C1	13 08 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C1	13 09 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C1	13 10 ABCDEFG
	Carefully remove stone redress refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C1

13 12 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

13 13 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

11 14 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

14 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 14 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 14 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:1 14 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

11 14 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

14 07 ABCDEFG

C1.	15	01 ABCDEF	G
CI	13		

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

19 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

20 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:1 20 02 ABCDEFG

Zone C2 Rehabilitation Codes

Zone C2 Rehabilitation Codes

2 00 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 00 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 00 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 00 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 00 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 00 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 00 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 00 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 00 09 ABCDEFG

- 01 01 ABCDEFG No work required at stone - 100% tuckpoint all wall areas. 01 02 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. 03 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 01 05 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 01 06 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 01 07 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 01 08 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
- No work required at stone 100% tuckpoint all wall areas.

09 ABCDEFG

C2

2 02 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 02 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:2 02 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 02 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 02 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 02 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 03 01 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

C2 03 02 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

C2 03 03 A B C D E F G

Replace existing stone with new, match existing in color, texture and all other physical properties.

03 04 ABCDEFG C2 Replace existing stone with new, match existing in color, texture and all other physical properties. 03 05 ABCDEFG C2 Replace existing stone with new, match existing in color, texture and all other physical properties. 06 ABCDEFG C2 Replace existing stone with new, match existing in color, texture and all other physical properties. 03 07 ABCDEFG C2 Replace existing stone with new, match existing in color, texture and all other physical properties. 03 08 ABCDEFG C2 Replace existing stone with new, match existing in color, texture and all other physical properties. 04 01 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 04 02 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 04 03 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 04 ABCDEFG C2

2 04 05 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 04 06 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

2 04 07 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

2 04 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 04 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 05 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 05 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 05 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 05 04 ABCDEFG

05 05 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 06 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 07 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 05 08 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 01 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. 06 02 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. O3 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

06 04 ABCDEFG

05 ABCDEFG

C2

C2

2 06 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 06 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 06 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

22 06 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 07 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 07 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 07 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 07 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 07 05 ABCDEFG

C2 07	06 ABCDEFG
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Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

2 08 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 08 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 08 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 08 10 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 08 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

09 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 09 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 09 04 ABCDEFG

C2	ng	05	ABCDEF (-
CZ	05	05		

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 09 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 10 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 10 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 10 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 10 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 10 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

22 10 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 10 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 10 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 10 10 ABCDEFG

C2	11 01 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C2	11 02 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C2	11 03 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C2	11 04 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C2	11 05 ABCDEFG
(No work required at stone - 100% tuckpoint all wall areas.
C2	11 06 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C2	11 07 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C2	11 08 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C2	12 O1 ABCDEFG

2 12 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 12 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 12 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 12 05 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

22 12 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 12 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 12 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 12 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 12 10 ABCDEFG

C2	12 11 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C2	12 12 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C2	12 13 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C2	12 14 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C2	13 01 ABCDEFG
(No work required at stone - 100% tuckpoint all wall areas.
C2	13 02 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C2	13 03 ABCDEFG

71 - 19 Jane 1

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

13 04 ABCDEFG C2

No work required at stone - 100% tuckpoint all wall areas.

13 05 ABCDEFG C2

2 13 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 13 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 13 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 13 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 13 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 13 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 14 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 14 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 14 03 ABCDEFG

14 04 ABCDEFG Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 14 05 ABCDEFG C2 Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas. 06 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 14 07 A B C D E F G C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 14 08 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 14 09 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. 10 ABCDEFG C2

No work required at stone - 100% tuckpoint all wall areas.

C2 15 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 15 02 ABCDEFG

:2 15 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 15 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 15 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 15 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 15 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 15 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 15 09 A B C D E F G

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 15 10 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 15 11 A B C D E F G

C2	15	12 ABCDEFG
	No	work required at s

C2 16 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 16 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 16 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 16 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 16 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 16 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 16 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 17 01 ABCDEFG

:2 17 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 17 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 17 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 17 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 17 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 17 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 18 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 18 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 18 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

- 18 04 ABCDEFG Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 18 05 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. 06 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 18 07 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. 18 08 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. 19 01 ABCDEFG C2 No work required at stone - 100% tuckpoint all wall areas. 02 ABCDEFG C2 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 19 03 ABCDEFG C2
- Carefully remove stone, redress, refinish and reinstall 100% tuckpoint all wall areas.
- C2 19 04 ABCDEFG

2 19 05 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 19 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

2 19 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 20 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 20 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

22 20 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

22 20 04 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C2 20 05 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C2 21 01 ABCDEFG

CO	21	02 ABCDEFG
,C2	21	

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

2 22 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 22 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

23 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

23 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

22 23 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 23 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 24 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 24 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 24 03 ABCDEFG

C2 25 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 25 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 26 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 27 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 28 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C2 29 01 ABCDEFG

Zone C3 Rehabilitation Codes

Zone C3 Rehabilitation Codes

C3	OΩ	01 ABCDEFG
C3	UU	

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

3 01 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 01 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 01 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 01 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

01 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 09 ABCDEFG

C3 01 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 12 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 13 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 14 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 01 15 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 02 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 02 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 02 03 ABCDEFG

3 02 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 02 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 02 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 02 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

23 03 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 03 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 03 03 A B C D E F G

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 03 04 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

C3 03 05 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

- 03 06 A B C D E F G Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 03 07 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 08 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 03 09 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 10 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 03 11 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 12 ABCDEFG C3 Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas. 03 13 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 14 ABCDEFG C3
 - No work required at stone 100% tuckpoint all wall areas.

3 04 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 04 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 04 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

23 04 04 A B C D E F G

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 04 05 A B C D E F G

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 04 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 04 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 04 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 04 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

- 04 10 ABCDEFG Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 04 11 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas.
- 01 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas.
- 02 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas.
- 03 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas.
- 05 04 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas.
- 05 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas.
- 05 06 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas.
- 07 ABCDEFG No work required at stone - 100% tuckpoint all wall areas.

C3

3 05 08 ABCDEFG
✓

No work required at stone - 100% tuckpoint all wall areas.

3 05 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 05 10 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

23 05 11 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 05 12 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 05 13 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 05 14 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 06 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 06 02 ABCDEFG

C3	06	03 ABCDEFG
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Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

2	07	02 ABCDEFG
3	07	

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

СЗ	07	11 ABCDEFG
7	0,	

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 08 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 08 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 08 10 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 08 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 08 12 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 09 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 09 03 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C3 09 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

09 05 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 09 06 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas. 09 07 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 08 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 09 10 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 09 11 ABCDEFG C3

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 09 12 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 10 01 ABCDEFG

-50 -50 ----

3 10 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 10 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 10 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

23 10 05 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 10 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 10 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 10 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 10 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 10 10 ABCDEFG

- 11 01 ABCDEFG Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 03 ABCDEFG С3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 11 04 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 11 05 ABCDEFG C3 Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas. 11 06 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas. 07 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas. 11 08 ABCDEFG C3 No work required at stone - 100% tuckpoint all wall areas.
 - No work required at stone 100% tuckpoint all wall areas.

09 ABCDEFG

C3

3 11 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:3 11 11 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 11 12 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 11 13 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

3 11 14 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

23 11 15 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

23 12 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 12 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 12 03 ABCDEFG

C3 12 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 12 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 12 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 12 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 12 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 12 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 12 10 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 12 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 12 12 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 12 13 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

3 12 14 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 12 15 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

23 12 16 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 12 17 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C3 13 01 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 05 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 08 A B C D E F G

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C3 13 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 10 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 11 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C3 13 12 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 13 13 A B C D E F G

3 14 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 14 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 14 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 14 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

23 14 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 15 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 15 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 16 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 16 02 ABCDEFG

C3 17 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 17 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 18 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 18 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 19 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 19 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 20 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C3 20 02 ABCDEFG

Zone C4 Rehabilitation Codes

Zone C4 Rehabilitation Codes

C4	Ω1	O1 ABCDEFG
C4	OI	

No work required at stone - 100% tuckpoint all wall areas.

Replace existing stone with new, match existing in color, texture and all other physical properties.

No work required at stone - 100% tuckpoint all wall areas.

C4 01 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

C4 01 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

.4 02 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 02 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 02 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 02 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 03 01 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

C4 03 02 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

C4 03 03 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C4 03 04 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

C4 03 05 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

C4	O3 O6 ABCDEFG	
	Replace existing stone with new, match existing in color, texture and all other physical properties.	
C4	O3 O7 ABCDEFG	
	Replace existing stone with new, match existing in color, texture and all other physical properties.	
C4	03 08 ABCDEFG	
	Replace existing stone with new, match existing in color, texture and all other physical properties.	
C4	04 01 ABCDEFG	
	No work required at stone - 100% tuckpoint all wall areas.	
C4	04 02 ABCDEFG	
	No work required at stone - 100% tuckpoint all wall areas.	
C4	4 03 ABCDEFG ✓	
	No work required at stone - 100% tuckpoint all wall areas.	
C4	4 04 ABCDEFG	
	Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall are	as.
C4	4 05 ABCDEFG	
	Provide minor refacing/refinishing of stone in-situ - 100% tuckpoint all wall areas.	
C4	4 06 ABCDEFG	

Page 3 of 23

4 04 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

4 04 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

:4 04 09 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

24 05 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

05 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 05 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 05 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 05 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 05 06 ABCDEFG

C4	05	07 ABCDEFG	į
, 4	0.5		

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

4 06 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 06 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 07 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 07 02 ABCDEFG ✓

No work required at stone - 100% tuckpoint all wall areas.

24 07 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 07 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 07 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 07 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 07 07 ABCDEFG

- 08 ABCDEFG No work required at stone - 100% tuckpoint all wall areas. 08 01 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 02 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 08 03 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 04 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 08 05 ABCDEFG C4
- No work required at stone 100% tuckpoint all wall areas.
- 06 ABCDEFG No work required at stone - 100% tuckpoint all wall areas.

C4

- 08 07 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas.
- 08 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas.

:4 08 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 08 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 08 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 09 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 09 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 09 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 09 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 09 06 ABCDEFG

C4	09	07 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C4	09	08 ABCDEFG
	Ca	refully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.
C4	09	09 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C4	09	10 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C4	09	11 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C4	09	12 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C4	10	O1 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C4	10	02 ABCDEFG
	No	work required at stone - 100% tuckpoint all wall areas.
C4	10	03 ABCDEFG

4 10 04 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

4 10 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 10 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 10 07 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C4 10 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 10 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 10 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 11 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 11 02 ABCDEFG

C4	11 03 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	11 04 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	11 05 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C4	11 06 ABCDEFG
	Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.
C4	11 07 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	11 08 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	11 09 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	12 01 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

12 02 ABCDEFG

C4

4 12 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 12 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 12 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 12 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 12 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

24 12 08 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C4 12 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 12 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 12 11 ABCDEFG

C4	12	12	Α	В	С	D	Ε	F	G
0.4	12	12	V	П					

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Replace existing stone with new, match existing in color, texture and all other physical properties.

No work required at stone - 100% tuckpoint all wall areas.

24 13 09 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

24 13 10 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

24 13 11 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

24 14 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 14 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 14 03 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

24 14 04 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C4 14 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 14 06 ABCDEFG

C4	14 07 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	14 08 ABCDEFG
	Replace existing stone with new, match existing in color, texture and all other physical properties
C4	14 09 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	14 10 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	14 11 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	15 01 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	15 02 ABCDEFG
	No work required at stone - 100% tuckpoint all wall areas.
C4	15 03 ABCDEFG
	Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.
C4	15 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

4 15 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 15 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 15 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 15 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 15 09 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

24 15 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 15 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 16 01 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C4 16 02 ABCDEFG

C4 16 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 16 04 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C4 16 05 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

C4 16 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C4 16 07 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C4 17 01 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C4 17 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C4 17 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 17 04 ABCDEFG

4 17 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 17 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 17 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 18 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 18 02 ABCDEFG

Carefully remove stone, repair (using lime injection and/or parch material) - 100% tuckpoint all wall areas.

24 18 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 18 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 18 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 18 06 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

C4	18	07	ΑВ	C	D	Ε	F	G
14	TO	07		Γ		V		

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

20 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

20 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

20 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

20 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 21 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 21 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 21 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 21 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 21 05 ABCDEFG

- 21 06 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 21 07 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 01 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 22 02 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 22 03 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 22 04 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 01 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas. 23 02 ABCDEFG C4 No work required at stone - 100% tuckpoint all wall areas.
 - No work required at stone 100% tuckpoint all wall areas.

03 ABCDEFG

C4

4 23 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 24 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:4 24 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 24 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

25 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

24 25 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 26 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 27 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C4 28 01 ABCDEFG

C4 29 01 ABCDEFG

Zone C5 Rehabilitation Codes

Zone C5 Rehabilitation Codes

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C5	01	01		Ö	Č	ń	ក	'n	Й

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

25 04 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

.5 04 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

25 04 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

25 05 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

05 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

C5 05 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C5 05 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C5 06 01 ABCDEFG

C5 06	02 ABCDEFG
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No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

C5 07 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C5 07 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

5 09 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

5 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

25 10 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

25 10 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

5 11 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

25 12 01 ABCDEFG

Zone C6 Rehabilitation Codes

Zone C6 Rehabilitation Codes

6	01	Ω1	ΑВ	C	D	E	F	G
U	OI	OΙ			П	\neg		

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Provide 15 square inches of stone repair in-situ - 100% tuckpoint all wall areas.

C6 05 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C6 06 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C6 06 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C6 06 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C6 07 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C6 07 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C6 08 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C6 08 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C6 09 01 ABCDEFG

.6 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:6 10 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

26 10 02 ABCDEFG ✓

No work required at stone - 100% tuckpoint all wall areas.

11 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

12 01 ABCDEFG

Zone C7 Rehabilitation Codes

Zone C7 Rehabilitation Codes

7 01 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

7 01 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

7 02 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

27 02 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C7 03 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C7 03 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C7 03 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C7 03 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C7 04 01 ABCDEFG

C7	04	02 ABCDEF	G
C/	04		

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

7 07 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

7 07 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

7 08 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

7 08 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

7 09 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

27 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

27 09 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C7 10 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C7 10 02 ABCDEFG

C7 11 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C7 12 01 ABCDEFG

Zone C8 Rehabilitation Codes

Zone C8 Rehabilitation Codes

C8	01	01 ABCDEFG
CO	OI	

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

8 04 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

8 05 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

.8 05 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

:8 06 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

28 06 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

28 06 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 07 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 07 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 08 01 ABCDEFG

C8 08 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 09 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 10 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 10 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 11 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

C8 12 01 ABCDEFG

Zone T1 Rehabilitation Codes

Zone T1 Rehabilitation Codes

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

1 06 01 ABCDEFG

Zone T2 Rehabilitation Codes

Zone T2 Rehabilitation Codes

2 01 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 02 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 03 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 04 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

Γ2 04 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

Γ2 04 03 A B C D E F G

No work required at stone - 100% tuckpoint all wall areas.

T2 05 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T2 06 01 ABCDEFG

Zone T3 Rehabilitation Codes

Zone T3 Rehabilitation Codes

3 01 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 02 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

73 03 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

ГЗ 04 01 <u>A B C D E F G</u>

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

T3 04 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T3 04 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T3 04 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T3 05 01 ABCDEFG

T3 06 01 ABCDEFG

Zone T4 Rehabilitation Codes

Zone T4 Rehabilitation Codes

T4 01 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T4 02 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T4 03 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T4 04 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

04 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T4 04 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T4 05 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

T4 06 01 ABCDEFG

Zone V1 Rehabilitation Codes

Zone V1 Rehabilitation Codes

A STORY TO STATE

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Replace existing stone with new, match existing in color, texture and all other physical properties.

1 02 04 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

1 02 05 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

'1 02 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 02 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

√1 03 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 03 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 03 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 03 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 03 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/1 05 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 05 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 05 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 05 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 06 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 06 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 06 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 06 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 06 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/1 07 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 08 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 08 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 08 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 08 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 08 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 08 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 08 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 09 01 ABCDEFG

V1 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 09 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 09 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 09 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 09 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 09 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 09 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 09 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 10 01 ABCDEFG

/1 10 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 10 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 10 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 10 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 10 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 10 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

11 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 11 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 11 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/1 12 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 12 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

12 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 12 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 12 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 12 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 13 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 13 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 13 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/1 14 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 14 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 14 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 14 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 14 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 14 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 14 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 14 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 14 10 ABCDEFG

V1 14 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 15 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 15 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 15 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 15 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 15 05 ABCDEFG ✓

No work required at stone - 100% tuckpoint all wall areas.

V1 15 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 15 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V1 15 08 ABCDEFG

/1 15 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 15 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 16 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 16 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 16 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 16 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 16 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 16 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 16 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/1 19 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 19 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 19 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 19 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 20 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 20 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′1 20 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 20 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

1 20 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/1	23	01 ABCDEFG
,	23	

/1 23 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 23 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/1 23 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 24 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 25 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 25 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'1 26 01 ABCDEFG

Zone V2 Rehabilitation Codes

Zone V2 Rehabilitation Codes

12	01	01 ABCDEFG
12	OT	

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/2 04 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 04 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 04 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 04 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 05 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 05 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 05 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'2 05 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 05 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/2 06 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 07 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 07 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 07 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 07 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 07 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 07 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 07 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 07 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/2 09 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 09 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 09 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 09 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

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'2 09 08 ABCDEFG

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2 10 01 ABCDEFG

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No work required at stone - 100% tuckpoint all wall areas.

/2 11 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 11 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 11 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 11 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 11 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 11 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 11 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'2 12 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'2 12 02 ABCDEFG

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No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/2 13 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 13 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 13 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 13 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 13 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 13 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 13 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′2 13 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

2 13 10 ABCDEFG

V2 13 11 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V2 14 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V2 14 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V2 14 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V2 14 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V2 14 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V2 14 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V2 14 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V2 14 08 ABCDEFG

/2 14 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/2 14 10 ABCDEFG

Zone V3 Rehabilitation Codes

Zone V3 Rehabilitation Codes

/3	01	01 ABCDEF	G

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Replace existing stone with new, match existing in color, texture and all other physical properties.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

'3 05 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

'3 05 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 06 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 06 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 06 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

'3 06 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 07 01 <u>ABCDEFG</u>

No work required at stone - 100% tuckpoint all wall areas.

3 07 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 07 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 07 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 08 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 08 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 08 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 08 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

V3 09 02 ABCDEFG

Replace existing stone with new, match existing in color, texture and all other physical properties.

V3 09 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 09 04 ABCDEFG

√3 10 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/3 10 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/3 10 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/3 10 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/3 11 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′3 11 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

′3 11 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 12 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 12 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 12 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 12 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 13 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 13 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 13 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 13 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 14 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 14 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 14 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

/3 14 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/3 14 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/3 14 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 15 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 15 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 15 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 15 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 15 05 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 15 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Replace existing stone with new, match existing in color, texture and all other physical properties.

No work required at stone - 100% tuckpoint all wall areas.

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

/3 17 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/3 18 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/3 18 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 18 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 18 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 18 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 18 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 19 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

3 19 02 ABCDEFG

V3 19 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 19 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 19 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 19 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 20 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V3 20 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 20 03 A B C D E F G

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 20 04 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

V3 20 05 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

/3 21 01 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

/3 21 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

'3 21 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 21 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'3 22 01 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

'3 22 02 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

'3 22 03 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 23 01 ABCDEFG

Carefully remove stone, redress, refinish and reinstall - 100% tuckpoint all wall areas.

3 23 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

Zone V4 Rehabilitation Codes

Zone V4 Rehabilitation Codes

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OJ.	01		

No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

No work required at stone - 100% tuckpoint all wall areas.

'4 02 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′4 02 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'4 02 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'4 02 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 03 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 03 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 03 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 03 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 03 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

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/4 05 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/4 05 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/4 05 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′4 05 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′4 05 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'4 05 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'4 05 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 05 08 ABCDEFG

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4 06 01 ABCDEFG

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/4 07 04 ABCDEFG

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/4 07 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/4 07 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/4 07 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'4 07 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

'4 08 03 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'4 08 04 ABCDEFG

V4 08 05 ABCDEFG ✓

No work required at stone - 100% tuckpoint all wall areas.

V4 08 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 08 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 08 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 08 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 09 01 ABCDEFG

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V4 09 02 ABCDEFG

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V4 09 03 ABCDEFG

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V4 09 04 ABCDEFG

/4 09 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

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No work required at stone - 100% tuckpoint all wall areas.

'4 09 07 ABCDEFG

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'4 09 08 ABCDEFG

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'4 10 01 ABCDEFG

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'4 10 02 ABCDEFG

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'4 10 03 ABCDEFG

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V4 10 06 ABCDEFG

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V4 10 09 ABCDEFG

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V4 10 10 ABCDEFG

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V4 11 01 ABCDEFG

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V4 11 02 ABCDEFG

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V4 11 04 ABCDEFG

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/4 11 06 ABCDEFG

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'4 11 07 ABCDEFG

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'4 11 09 ABCDEFG

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V4 12 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 12 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 12 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 12 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 12 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 12 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 13 01 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 13 02 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

V4 13 03 ABCDEFG

√4 13 04 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/4 13 05 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/4 13 06 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

/4 13 07 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

′4 13 08 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

'4 13 09 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 13 10 ABCDEFG

No work required at stone - 100% tuckpoint all wall areas.

4 13 11 ABCDEFG



Department of Public Works City Engineering Division

City Engineering Division

Robert F. Phillips, P.E. City Engineer

City-County Building, Room 115 210 Martin Luther King, Jr. Boulevard Madison, Wisconsin 53703 FAX 608 264 9275 www.cityofmadison.com 608 266 4751

Assistant City Engineer Michael R. Dalley, P.E.

Principal Engineers Christina M. Bachmann, P.E. John S. Fahrney, P.E. Gregory T. Fries, P.E.

Christopher J. Petykowski, P.E. Facilities & Sustainability Jeanne E. Hoffman, Manager James C. Whitney, A.I.A.

> Operations Supervisor Kathleen M. Cryan GIS Manager David A. Davis, R.L.S.

> Steven B. Danner-Rivers **Hydrogeologist**Brynn Bemis

Financial Officer

NOTICE OF ADDENDUM ADDENDUM NO. 1 FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL CONTRACT NO. 7030

Revise and amend the contract document(s) for the above project as stated in this addendum, otherwise, the original document shall remain in effect.

Remove page A-1. Insert revised page A-1. For clarification: The onsite Pre-Bid tour will be at 9:00 AM at Forest Hill Cemetery. The Pre-Bid Meeting with Representatives of the Affirmative Action Department will be held at 1:00 PM at 1600 Emil Street, Madison Wisconsin.

Please acknowledge this addendum on page E1 of the contract documents and/or in Section E: Bidder's Acknowledgement on Bid Express.

Electronic version of these documents can be found on Bid Express at https://www.bidexpress.com/ and the City of Madison web site at http://www.cityofmadison.com/business/PW/contracts/openforBid.cfm

If you are unable to download plan revisions associated with the addendum, please contact the Engineering office at 608-266-4751 receive the material by another route.

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SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS

REQUEST FOR BID FOR PUBLIC WORKS CONSTRUCTION CITY OF MADISON, WISCONSIN

A BEST VALUE CONTRACTING MUNICIPALITY

PROJECT NAME:	FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL		
CONTRACT NO.:	7030		
SBE GOAL	20%		
BID BOND	5%		
PRE BID TOUR (9:00 A.M.)	APRIL 19, 2013		
PRE-BID MEETING (1:00 P.M.)	APRIL 19, 2013		
PREQUALIFICATION APPLICATION DUE (1:00 P.M)	APRIL 19, 2013		
BID SUBMISSION (1:00 P.M.)	APRIL 26, 2013		
BID OPEN (1:30 P.M.)	APRIL 26, 2013		
PUBLISHED IN WSJ	4/5/13, 4/12/13 & 4/19/13		

PRE BID MEETING: Representatives of the Affirmative Action Department will be present to discuss the Small Business Enterprise requirements at 1600 Emil Street, Madison Wisconsin.

There will be an onsite pre-bid tour of the existing buildings on April 19th, at 9:00 a.m. to provide bidders the opportunity to acquaint themselves with the project requirements. A representative from the designer's office will be present to take questions that will be answered by addendum.

PREQUALIFICATION APPLICATION: Forms are available on our website, www.cityofmadison.com/business/pw/forms.cfm. If not currently prequalified in the categories listed in Section A, an amendment to your Prequalification will need to be submitted prior to the same due date. Postmark is not applicable.

BIDS TO BE SUBMITTED by hand to 1600 EMIL ST., MADISON, WI 53713 or online at www.bidexpress.com.

THE BID OPENING is at 1600 EMIL ST., MADISON, WI 53713.

Plans and Specifications are also available at 1600 Emil St., Madison, WI, 53713; (608) 267-1197.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2013 Edition, as supplemented and amended from time to time, forms a part of these contract documents as if attached hereto.

These standard specifications are available on the City of Madison Public Works website, www.cityofmadison.com/Business/PW/specs.cfm.

The Contractor shall review these Specifications prior to preparation of proposals for the work to be done under this contract, with specific attention to Article 102, "BIDDING REQUIREMENTS AND CONDITIONS" and Article 103, "AWARD AND EXECUTION OF THE CONTRACT." For the convenience of the bidder, below are highlights of three subsections of the specifications.

SECTION E: BIDDERS ACKNOWLEDGEMENT

FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL CONTRACT NO. 7030

Bidder must state a Unit Price and Total Bid for each item. The Total Bid for each item must be the product of quantity, by Unit Price. The Grand Total must be the sum of the Total Bids for the various items. In case of multiplication errors or addition errors, the Grand Total with corrected multiplication and/or addition shall determine the Grand Total bid for each contract. The Unit Price and Total Bid must be entered numerically in the spaces provided. All words and numbers shall be written in ink.

1.	The undersigned having familiarized himself/herself with the Contract documents, including Advertisement for Bids, Instructions to Bidders, Form of Proposal, City of Madison Standard
	Specifications for Public Works Construction - 2013 Edition thereto, Form of Agreement, Form of
	Bond, and Addenda issued and attached to the plans and specifications on file in the office of the City Engineer, hereby proposes to provide and furnish all the labor, materials, tools, and
	expendable equipment necessary to perform and complete in a workmanlike manner the
	specified construction on this project for the City of Madison; all in accordance with the plans and
	specifications as prepared by the City Engineer, including Addenda to the Contract Nos.
	through issued thereto, at the prices for said work as contained in this proposal.
	(Electronic bids submittals shall acknowledge addendum under Section E and shall not
	acknowledge here)
2.	If awarded the Contract, we will initiate action within seven (7) days after notification or in
	accordance with the date specified in the contract to begin work and will proceed with diligence to
	bring the project to full completion within the number of work days allowed in the Contract or by
	the calendar date stated in the Contract.
3.	The undersigned Bidder or Contractor certifies that he/she is not a party to any contract,
	combination in form of trust or otherwise, or conspiracy in restraint of trade or commerce or any
	other violation of the anti-trust laws of the State of Wisconsin or of the United States, with respect
	to this bid or contract or otherwise.
4.	I hereby certify that I have met the Bid Bond Requirements as specified in Section 102.5.
	(IF BID BOND IS USED, IT SHALL BE SUBMITTED ON THE FORMS PROVIDED BY THE CITY. FAILURE TO DO SO MAY RESULT IN REJECTION OF THE BID).
5.	I hereby certify that all statements herein are made on behalf of
0.	Joe Daniels Const. Co., In (name of corporation, partnership, or person submitting bid)
	a corporation organized and existing under the laws of the State of Wisconsin
	; of the City of Madison State
	of <u>Wisconsin</u> ; that I have examined and carefully prepared this Proposal,
	from the plans and specifications and have checked the same in detail before submitting this
	Proposal; that I have fully authority to make such statements and submit this Proposal in (its,
	their) behalf; and that the said statements are true and correct.
	1 11 1
/	brest A Line
SIGNAT	URE Joseph A. Daniels
resi	dent
ritle, if	FANY
_	1 1 11 14 15 114 OCEN 1 5 Avend 1 20 12
	and subscribed to before me this 26th day of April , 20 13.
Notary	Public or other officer authorized to administer oaths) mmission Expires 07/17/2016
viy Coi	mmission Expires 07/17/2016 s shall not add any conditions or qualifying statements to this Proposal.
siaaers	s shall not add any conditions or qualifying statements to this Proposal.
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Section F: Disclosure of Ownership and BVC

This section is a required document for the bid to be considered complete. There are two methods for completing the Disclosure of Ownership and BVC form. Method one: The form can be filled out online and submitted to this site to be included with your electronic bid. Method two: The form can be downloaded from the site and submitted by hand to the City of Madison.

Please select the method of submission below. The form can be found below for filling out online or download and submit by hand.

Please check the box in the Upload section if submitting the report by hand.

Method of Submittal for Disclosure of Ownership and BVC (click in box below to choose) * I will submit Bid Express fillable online form (Disclosure of Ownership and BVC).

Section F: Disclosure of Ownership and Best Value Contracting

Notice required under Section 15.04(1)(m), Wisconsin Statutes. The statutory authority for the use of this form is prescribed in Sections 66.0903(12)(d), Wisconsin Statutes. The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12). Personal information you provide may be used for secondary purposes.

- (1) On the date a contractor submits a bid to or completes negotiations with a state agency or local governmental unit, on a project subject to Section 66.0903 or 103.49, Wisconsin Statutes, the contractor shall disclose to such state agency or local governmental unit the name of any "other construction business", which the contractor, or a shareholder, officer or partner of the contractor, owns or has owned within the preceding three (3) years.
- (2) The term "other construction business" means any business engaged in the erection, construction, remodeling, repairing, demolition, altering or painting and decorating of buildings, structures or facilities. It also means any business engaged in supplying mineral aggregate, or hauling excavated material or spoil as provided by Sections 66.0903(3), 103.49(2) amd 103.50(2), Wisconsin Statues.
- (3) This form must ONLY be filed, with the state agency or local governmental unit that will be awarding the contract, if both (A) and (B) are met.
- (A) The contractor, or a shareholder, officer or partner of the contractor:
- 1. Owns at least a 25% interest in the "other construction business", indicated below, on the date the contractor submits a bid or completes negotiations.
- 2. Or has owned at least a 25% interest in the "other construction business" at any time within the preceding three (3) years.
- (B) The Wisconsin Department of Workforce Development (DWD) has determined that the "other construction business" has failed to pay the prevailing wage rate or time and one-half the required hourly basic rate of pay, for hours worked in excess of the prevailing hours of labor, to any employee at any time within the preceding three (3) years.

Other Construction Business ·

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Not Applicable
Name of Business
Street Address or P O Box City State and Zip Code
Name of Business
Street Address or P O Box City
State and Zip Code
Best Value Contracting 1. The Contractor shall indicate the non-apprenticeable trades used on this contract.
2. Madison General Ordinance (M.G.O.), 33.07(7), does provide for some exemptions from the active apprentice requirement. Apprenticeable trades are those trades considered apprenticeable by the State of Wisconsin. Please check applicable box if you are seeking an exemption.
Contractor has a total skilled workforce of four or less individuals in all apprenticeable trades combined.
No available trade training program; The Contractor has been rejected by the only available trade training program, or there is no trade training program within 90 miles.
Contractor is not using an apprentice due to having a journey worker on layoff status, provided the journey worker was employed by the contractor in the past six months.
First time contractor on City of Madison Public Works contract requests a onetime exemption but intends to comply on all future contracts and is taking steps typical of a "good faith" effort.
Contractor has been in business less than one year.
Contractor doesn't have enough journeyman trade workers to qualify for a trade training program in that respective trade.
3. The Contractor shall indicate on the following section which apprenticeable trades are to be used on this contract. Compliance with active apprenticeship, to the extent required by M.G.O. 33.07(7), shall be satisfied by documentation from an applicable trade training body; an apprenticeship contract with the Wisconsin Department of Workforce Development or a similar agency in another state; or the U.S Department of Labor. This documentation is required prior to the Contractor beginning work on the project site.

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r	The Contractor has reviewed the list and shall not use any apprenticeable trades on this project.
LIS	T APPRENTICABLE TRADES (check all that apply to your work to be performed on this contract)
-	BRICKLAYER
	CARPENTER
	CEMENT MASON / CONCRETE FINISHER
Г	CEMENT MASON (HEAVY HIGHWAY)
F	CONSTRUCTION CRAFT LABORER
	DATA COMMUNICATION INSTALLER
	ELECTRICIAN
SEF	ENVIRONMENTAL SYSTEMS TECHNICIAN / HVAC SERVICE TECH/HVAC INSTALL / RVICE
	GLAZIER
Γ	HEAVY EQUIPMENT OPERATOR / OPERATING ENGINEER
Γ	INSULATION WORKER (HEAT and FROST)
	IRON WORKER
	IRON WORKER (ASSEMBLER, METAL BLDGS)
Γ	PAINTER and DECORATOR
Γ	PLASTERER
	PLUMBER
	RESIDENTIAL ELECTRICIAN
	ROOFER and WATER PROOFER
1	SHEET METAL WORKER
	SPRINKLER FITTER
	STEAMFITTER
	STEAMFITTER (REFRIGERATION)
	STEAMFITTER (SERVICE)
	TAPER and FINISHER
	TELECOMMUNICATIONS (VOICE, DATA and VIDEO) INSTALLER-TECHNICIAN
	TILE SETTER

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Section B: Proposal Page

\$143,785.00

Item Code	Description	Quantity	y Units	Unit Price	Extension
1	COMPLETE LUMP SUM BID (EXCEPT FOR ITEM 2)	1.0000	LUMP SUM BID	\$139,000.00	0\$139,000.00
2	REPLACEMENT OF STONE PER REHAB CODE G IN LIEU OF REHAB CODE F.	15.0000	EA	\$319.00	\$4,785.00

2 Items
Total: \$143,785.00

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FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL CONTRACT NO. 7030

Small Business Enterprise Compliance Report

This information may be submitted electronically through Bid Express or submitted with bid in sealed envelope.

Cover Sheet

Prime Bidder Information	
Company: Joe Daniels Construction Co., I	nc.
Address: 919 Applegate Road, Madison, WI	53713
Telephone Number: 608/271-4800	Fax Number: 608/271-4570
Contact Person/Title: Joseph A. Daniels - Pres	ident
	•
Prime Bidder Certification	
Joseph A. Daniels	President of
Name	Title
Joe Daniels Construction Co., Inc.	certify that the information
Company	
contained in this SBE Compliance Report is true and corr	ect to the best of my knowledge and belief.
Liea el Sainsbury	brestof Faires
Witness' Signature	Bidder's Signature
April 26, 2013	/
Date	

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FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL CONTRACT NO. 7030

Small Business Enterprise Compliance Report

Summary Sheet

SBE Subcontractors Who Are NOT Suppliers

Name(s) of SBEs Utilized	Type of Work			% of Total Bid Amount		
Urban Construction Administration I	nc. Mas	sonry			49	%
Forest View Landscape Construction	Lar	ndscape			2	%
						%
						%
						%
						%
						%
						%
						%
			· · · · · · · · · · · · · · · · · · ·			%
						%
						%
						%
Subtotal SBE who are NOT suppliers:					51	_ %
SBE Subcontractors Who Are Suppliers						
Name(s) of SBEs Utilized	Type of Wor	k		% of Total	Bid Am	ount
						%_
				<u> </u>	,,,,,	%_
						%_
						%_
						%_
				artirette eete		<u>%</u>
Subtotal Contractors who are suppliers:	<u></u> %;	x 0.6 =	φ	% (discour	nted to 6	0%)
Total Percentage of SBE Utilization:	51 %.	•				

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Department of Public Works City Engineering Division

Larry D. Nelson, P.E. City Engineer

City-County Building, Room 115 210 Martin Luther King, Jr. Boulevard Madison, Wisconsin 53703 608 264 9275 FAX 1 866 704 2315 Textnet

608 266 4751

Deputy City Engineer Robert F Phillips, P.E.

Principal Engineers Michael R. Dailey, P.E. Christina M. Bachmann, P.E. John S. Fahmey, P.E. Gregory T Fries, P.E.

Facilities & Sustainability Jeanne E. Hoffman, Manage James C. Whitney, A.I.A.

> **Operations Supervisor** Kathleen M. Cryan Hydrogeologist Joseph L. DeMorett, P.G. Manager

ivis, R.L.S. ial Officer ner-Rivers

BIENNIAL BID BOND

Joe Daniels Construction Co., Inc.	GIS David A. Da
(a corporation of the State of Wisconsin	Financ Steven B. Dan
(individual), (partnership), (hereinafter referred to as the "Principal") and Cincinnati Insurance Company	Steven b. Dan
a corporation of the State of Ohio (hereinafter referred to as the "Surety") and business in the State of Wisconsin, are held and firmly bound unto the City of Mad (hereinafter referred to as the "City"), in the sum equal to the individual proposal guar the total bid or bids of the Principal herein accepted by the City, for the payment of wh and the Surety hereby jointly and severally bind ourselves, our heirs, executors, successors and assigns.	ison, Wisconsin anty amounts of ich the Principal
The condition of this obligation is that the Principal has submitted to the City certain from the time period of $\frac{2/1/12}{1/31/14}$	bids for projects
and the Surety hereby jointly and severally bind ourselves, our heirs, executors, successors and assigns. The condition of this obligation is that the Principal has submitted to the City certain	administrators

If the Principal is awarded the contract(s) by the City and, within the time and manner required by law after the prescribed forms are presented for its signature, the Principal enters into (a) written contract(s) in accordance with the bid(s), and files with the City its bond(s) guaranteeing faithful performance and payment for all labor and materials, as required by law, or if the City rejects all bids for the work described, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

In the event the Principal shall fail to execute and deliver the contract(s) or the performance and payment bond(s), all within the time specified or any extension thereof, the Principal and Surety agree jointly and severally to pay to the City within ten (10) calendar days of written demand a total equal to the sum of the individual proposal guaranty amounts of the total bid(s) as liquidated damages.

The Surety, for value received, hereby agrees that the obligations of it and its bond shall be in no way impaired or affected by any extension of time within which the City may accept a bid, and the Surety does hereby waive notice of any such extension.

This bond may be terminated by the Surety upon giving thirty (30) days written notice to the City of its intent to terminate this bond and to be released and discharged therefrom, but such termination shall not operate to relieve or discharge the Surety from any liability already accrued or which shall accrue before the expiration of such thirty (30) day period.

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IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, on the day and year set forth below.

PRINCIPAL

Joe Daniels Construction	on Co., Inc.	January 3, 2012
COMPANY NAME	AFFIX SEAL (none)	DATE
By: SIGNATURE AND TITLE Joseph A. Daniels	anial	
SURETY		
Cincinnati Insurance Co	ompany AFFIX SEAL	January 3, 2012 DATE
By: SIGNATURE AND TITLE Patrick A. McKenna	₩ a - Attorney-ir	ı-Fact
2349196	for the year201	ent for the Surety in Wisconsin under License No. 12, and appointed as attorney in ower of attorney has not been revoked.
January 3, 2012		Hausmann-Johnson Insurance, Inc. Patrick A. McKenna AGENT
		700 Regent Street ADDRESS
		Madison, WI 53725 CITY, STATE AND ZIP CODE
	·	608/252-9661 TELEPHONE NUMBER

Note to Surety and Principal: Any bid submitted which this bond guarantees may be rejected if the Power of Attorney form showing that the Agent of Surety is currently authorized to execute bonds on behalf of Surety is not attached to this bond.

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THE CINCINNATI INSURANCE COMPANY

Fairfield, Ohio

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That THE CINCINNATI INSURANCE COMPANY, a corporation organized under the laws of the State of Ohio, and having its principal office in the City of Fairfield, Ohio, does hereby constitute and appoint

Tim Hausmann; Jeff Hausmann; Steven L. Squires; Sheila Dickey; Judith A. Walker; Patrick A. McKenna; Brooke L. Parker and/or Kelsey Jacobson

of Madison, Wisconsin

its true and lawful Attorney(s)-in-Fact to sign, execute, seal and deliver on its behalf as Surety, and as its act and deed, any and all bonds, policies, undertakings, or other like instruments, as follows:

Any such obligations in the United States, up to

Thirty Million and No/100 Dollars (\$30,000,000.00). This appointment is made under and by authority of the following resolution passed by the Board of Directors of said Company at a meeting held in the principal office of the Company, a quorum being present and voting, on the 6th day of December, 1958, which resolution is still in effect:

"RESOLVED, that the President or any Vice President be hereby authorized, and empowered to appoint Attorneys-in-Fact of the Company to execute any and all bonds, policies, undertakings, or other like instruments on behalf of the Corporation, and may authorize any officer or any such Attorney-in-Fact to affix the corporate seal; and may with or without cause modify or revoke any such appointment or authority. Any such writings so executed by such Attorneys-in-Fact shall be binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 7th day of December, 1973.

"RESOLVED, that the signature of the President or a Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Secretary or Assistant Secretary and the seal of the Company may be affixed by facsimile to any certificate of any such power and any such power of certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company,"

IN WITNESS WHEREOF, THE CINCINNATI INSURANCE COMPANY has caused these presents to be sealed with its corporate seal, duly attested by its Vice President this 10th day of October, 2008.

STATE OF OHIO COUNTY OF BUTLER) ss:

On this 10th day of October, 2008, before me came the above-named Vice President of THE CINCINNATI INSURANCE COMPANY, to me personally known to be the officer described herein, and acknowledged that the seal affixed to the preceding instrument is the corporate seal of said Company and the corporate seal and the signature of the officer were duly affixed and subscribed to said instrument by the authority and direction of said corporation.

MARK J. HULLER, Attorney at Law NOTARY PUBLIC - STATE OF OHIO

My commission has no expiration date, Section 147.03 O.R.C.

I, the undersigned Secretary or Assistant Secretary of THE CINCINNATI INSURANCE COMPANY, hereby certify that the above is a true and correct copy of the Original Power of Attorney issued by said Company, and do hereby further certify that the said Power of Attorney is still in full force and effect.

GIVEN under my hand and seal of said Company at Fairfield, Ohio.

this

3 rd day of Vanvary, 2012.

Greggy J Schlaum Secretary

BN-1005 (10/08)

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SECTION H: AGREEMENT

THIS AGREEMENT made this 22nd day of Man in the year Two Thousand and Thirteen between JOE DANIELS CONSTRUCTION CO., INC. hereinafter called the Contractor, and the City of Madison, Wisconsin, hereinafter called the City.

WHEREAS, the Common Council of the said City of Madison under the provisions of a resolution adopted <u>MAY 21, 2013</u>, and by virtue of authority vested in the said Council, has awarded to the Contractor the work of performing certain construction.

NOW, THEREFORE, the Contractor and the City, for the consideration hereinafter named, agree as follows:

Scope of Work. The Contractor shall, perform the construction, execution and completion of the following listed complete work or improvement in full compliance with the Plans, Specifications, Standard Specifications, Supplemental Specifications, Special Provisions and contract; perform all items of work covered or stipulated in the proposal; perform all altered or extra work; and shall furnish, unless otherwise provided in the contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to the prosecution and completion of the work or improvements:

FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL CONTRACT NO. 7030

- 2. **Completion Date/Contract Time.** Construction work must begin within seven (7) calendar days after the date appearing on mailed written notice to do so shall have been sent to the Contractor and shall be carried on at a rate so as to secure full completion <u>SEE SPECIAL PROVISIONS</u>, the rate of progress and the time of completion being essential conditions of this Agreement.
- Contract Price. The City shall pay to the Contractor at the times, in the manner and on the conditions set forth in said specifications, the sum of <u>ONE HUNDRED FOURTY-THREE THOUSAND AND SEVEN HUNDRED EIGHTY-FIVE \$143,785.00</u>) Dollars being the amount bid by such Contractor and which was awarded to him/her as provided by law.
- 4. Wage Rates for Employees of Public Works Contractors

General and Authorization. The Contractor shall compensate its employees at the prevailing wage rate in accordance with section 66.0903, Wis. Stats., DWD 290 of the Wisconsin Administrative Code and as hereinafter provided.

"Public Works" shall include building or work involving the erection, construction, remodeling, repairing or demolition of buildings, parking lots, highways, streets, bridges, sidewalks, street lighting, traffic signals, sanitary sewers, water mains and appurtenances, storm sewers, and the grading and landscaping of public lands.

"Building or work" includes construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work, except for the delivery of mineral aggregate such as sand, gravel, bituminous asphaltic concrete or stone which is incorporated into the work under contract with the City by depositing the material directly in final place from transporting vehicle.

"Erection, construction, remodeling, repairing" means all types of work done on a particular building or work at the site thereof in the construction or development of the project, including without limitation, erecting, construction, remodeling, repairing, altering, painting, and decorating, the transporting of materials and supplies to or from the building or work done by the employees of the Contractor, Subcontractor, or Agent thereof, and the manufacturing or furnishing of

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materials, articles, supplies or equipment on the site of the building or work, by persons employed by the Contractor, Subcontractor, or Agent thereof.

"Employees working on the project" means laborers, workers, and mechanics employed directly upon the site of work.

"Laborers, Workers, and Mechanics" include pre-apprentices, helpers, trainees, learners and properly registered and indentured apprentices but exclude clerical, supervisory, and other personnel not performing manual labor.

Establishment of Wage Rates. The Department of Public Works shall periodically obtain a current schedule of prevailing wage rates from DWD. The schedule shall be used to establish the City of Madison Prevailing Wage Rate Schedule for Public Works Construction (prevailing wage rate). The Department of Public Works may include known increases to the prevailing wage rate which can be documented and are to occur on a future specific date. The prevailing wage rate shall be included in public works contracts subsequently negotiated or solicited by the City. Except for known increases contained within the schedule, the prevailing wage rate shall not change during the contract. The approved wage rate is attached hereto.

Workforce Profile. The Contractor shall, at the time of signature of the contract, notify the City Engineer in writing of the names and classifications of all the employees of the Contractor, Subcontractors, and Agents proposed for the work. In the alternative, the Contractor shall submit in writing the classifications of all the employees of the Contractor, Subcontractors and Agents and the total number of hours estimated in each classification for the work. This workforce profile(s) shall be reviewed by the City Engineer who may, within ten (10) days, object to the workforce profile(s) as not being reflective of that which would be required for the work. The Contractor may request that the workforce profile, or a portion of the workforce profile, be submitted after the signature of the contract but at least ten (10) days prior to the work commencing. Any costs or time loss resulting from modifications to the workforce profile as a result of the City Engineer's objections shall be the responsibility of the Contractor.

Payrolls and Records. The Contractor shall keep weekly payroll records setting forth the name, address, telephone number, classification, wage rate and fringe benefit package of all the employees who work on the contract, including the employees of the Contractor's subcontractors and agents. Such weekly payroll records must include the required information for all City contracts and all other contracts on which the employee worked during the week in which the employee worked on the contract. The Contractor shall also keep records of the individual time each employee worked on the project and for each day of the project. Such records shall also set forth the total number of hours of overtime credited to each such employee for each day and week and the amount of overtime pay received in that week. The records shall set forth the full weekly wages earned by each employee and the actual hourly wage paid to the employee.

The Contractor shall submit the weekly payroll records, including the records of the Contractor's subcontractors and agents, to the City Engineer for every week that work is being done on the contract. The submittal shall be within twenty-one (21) calendar days of the end of the Contractor's weekly pay period.

Employees shall receive the full amounts accrued at the time of the payment, computed at rates not less than those stated in the prevailing wage rate and each employee's rate shall be determined by the work that is done within the trade or occupation classification which should be properly assigned to the employee.

An employee's classification shall not be changed to a classification of a lesser rate during the contract. If, during the term of the contract, an employee works in a higher pay classification than the one which was previously properly assigned to the employee, then that employee shall be considered to be in the higher pay classification for the balance of the contract, receive the appropriate higher rate of pay, and she/he shall not receive a lesser rate during the balance of the

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contract. For purposes of clarification, it is noted that there is a distinct difference between working in a different classification with higher pay and doing work within a classification that has varying rates of pay which are determined by the type of work that is done within the classification. For example, the classification "Operating Engineer" provides for different rates of pay for various classes of work and the Employer shall compensate an employee classified as an "Operating Engineer" based on the highest class of work that is done in one day. Therefore, an "Operating Engineer's" rate may vary on a day to day basis depending on the type of work that is done, but it will never be less than the base rate of an "Operating Engineer". Also, as a matter of clarification, it is recognized that an employee may work in a higher paying classification merely by chance and without prior intention, calculation or design. If such is the case and the performance of the work is truly incidental and the occurrence is infrequent, inconsequential and does not serve to undermine the single classification principle herein, then it may not be required that the employee be considered to be in the higher pay classification and receive the higher rate of pay for the duration of the contract. However, the Contractor is not precluded or prevented from paying the higher rate for the limited time that an employee performs work that is outside of the employee's proper classification.

Questions regarding an employee's classification, rate of pay or rate of pay within a classification, shall be resolved by reference to the established practice that predominates in the industry and on which the trade or occupation rate/classification is based. Rate of pay and classification disputes shall be resolved by relying upon practices established by collective bargaining agreements and guidelines used in such determination by appropriate recognized trade unions operating within the City of Madison.

The Contractor, its Subcontractors and Agents shall submit to interrogation regarding compliance with the provisions of this ordinance.

Mulcting of the employees by the Contractor, Subcontractor, and Agents on Public Works contracts, such as by kickbacks or other devices, is prohibited. The normal rate of wage of the employees of the Contractor, Subcontractor, and Agents shall not be reduced or otherwise diminished as a result of payment of the prevailing wage rate on a public works contract.

Hourly contributions. Hourly contributions shall be determined in accordance with the prevailing wage rate and with DWD. 290.01(10), Wis. Admin. Code.

Apprentices and Subjourney persons. Apprentices and sub journeypersons performing work on the project shall be compensated in accordance with the prevailing wage rate and with DWD 290.02, and 290.025, respectively, Wis. Admin. Code.

Straight Time Wages. The Contractor may pay straight time wages as determined by the prevailing wage rate and DWD 290.04, Wis. Admin. Code.

Overtime Wages. The Contractor shall pay overtime wages as required by the prevailing wage rate and DWD 290.05, Wis. Admin. Code.

Posting of Wage Rates and Hours. A clearly legible copy of the prevailing wage rate, together with the provisions of Sec. 66.0903(10)(a) and (11)(a), Wis. Stats., shall be kept posted in at least one conspicuous and easily accessible place at the project site by the Contractor and such notice shall remain posted during the full time any laborers, workers or mechanics are employed on the contract.

Evidence of Compliance by Contractor. Upon completion of the contract, the Contractor shall file with the Department of Public Works an affidavit stating:

a. That the Contractor has complied fully with the provisions and requirements of Sec. 66.0903(3), Wis. Stats., and Chapter DWD 290, Wis. Admin. Code; the Contractor has received evidence of compliance from each of the agents and subcontractors; and the

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names and addresses of all of the subcontractors and agents who worked on the contract.

b. That full and accurate records have been kept, which clearly indicate the name and trade or occupation of every laborer, worker or mechanic employed by the Contractor in connection with work on the project. The records shall show the number of hours worked by each employee and the actual wages paid therefore; where these records will be kept and the name, address and telephone number of the person who will be responsible for keeping them. The records shall be retained and made available for a period of at least three (3) years following the completion of the project of public works and shall not be removed without prior notification to the municipality.

Evidence of Compliance by Agent and Subcontractor. Each agent and subcontractor shall file with the Contractor, upon completion of their portion of the work on the contract an affidavit stating that all the provisions of Sec. 66.0903(3), Wis. Stats., have been fully complied with and that full and accurate records have been kept, which clearly indicate the name and trade or occupation of every laborer, worker or mechanic employed by the Contractor in connection with work on the project. The records shall show the number of hours worked by each employee and the actual wages paid therefore; where these records shall be kept and the name, address and telephone number of the person who shall be responsible for keeping them. The records shall be retained and made available for a period of at least three (3) years following the completion of the project of public works and shall not be removed without prior notification to the municipality.

Failure to Comply with the Prevailing Wage Rate. If the Contractor fails to comply with the prevailing wage rate, she/he shall be in default on the contract.

5. **Affirmative Action.** In the performance of the services under this Agreement the Contractor agrees not to discriminate against any employee or applicant because of race, religion, marital status, age, color, sex, disability, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, political beliefs, or student status. The Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this contract because of race, religion, color, age, disability, sex or national origin.

The Contractor agrees that within thirty (30) days after the effective date of this agreement, the Contractor will provide to the City Affirmative Action Division certain workforce utilization statistics, using a form to be furnished by the City.

If the contract is still in effect, or if the City enters into a new agreement with the Contractor, within one year after the date on which the form was required to be provided, the Contractor will provide updated workforce information using a second form, also to be furnished by the City. The second form will be submitted to the City Affirmative Action Division no later than one year after the date on which the first form was required to be provided.

The Contractor further agrees that, for at least twelve (12) months after the effective date of this contract, it will notify the City Affirmative Action Division of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered. The notice will include a job description, classification, qualifications and application procedures and deadlines. The Contractor agrees to interview and consider candidates referred by the Affirmative Action Division if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date started in the notice.

Articles of Agreement

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Article I

The Contractor shall take affirmative action in accordance with the provisions of this contract to insure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, age, marital status, disability, sex or national original and that the employer shall provide harassment free work environment for the realization of the potential of each employee. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship insofar as it is within the control of the Contractor. The Contractor agrees to post in conspicuous places available to employees and applicants notices to be provided by the City setting out the provisions of the nondiscrimination clauses in this contract.

Article II

The Contractor shall in all solicitations or advertisements for employees placed by or on behalf of the Contractors state that all qualified or qualifiable applicants will be employed without regard to race, religion, color, age, marital status, disability, sex or national origin.

Article III

The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided by the City advising the labor union or worker's representative of the Contractor's equal employment opportunity and affirmative action commitments. Such notices shall be posted in conspicuous places available to employees and applicants for employment.

Article V

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison, including the contract compliance requirements. The Contractor agrees to submit the model affirmative action plan for public works contractors in a form approved by the Director of Affirmative Action.

Article VI

The Contractor will maintain records as required by Section 39.02(9)(f) of the Madison General Ordinances and will provide the City Affirmative Action Division with access to such records and to persons who have relevant and necessary information, as provided in Section 39.02(9)(f). The City agrees to keep all such records confidential, except to the extent that public inspection is required by law.

Article VII

In the event of the Contractor's or subcontractor's failure to comply with the Equal Employment Opportunity and Affirmative Action Provisions of this contract or Section 39.03 and 39.02 of the Madison General Ordinances, it is agreed that the City at its option may do any or all of the following:

- 1. Cancel, terminate or suspend this Contract in whole or in part.
- 2. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.
- 3. Recover on behalf of the City from the prime Contractor 0.5 percent of the contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the contract price, or five

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thousand dollars (\$5,000), whichever is less. Under public works contracts, if a subcontractor is in noncompliance, the City may recover liquidated damages from the prime Contractor in the manner described above. The preceding sentence shall not be construed to prohibit a prime Contractor from recovering the amount of such damage from the non-complying subcontractor.

Article VIII

The Contractor shall include the above provisions of this contract in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor shall take such action with respect to any subcontractor as necessary to enforce such provisions, including sanctions provided for noncompliance.

Article IX

The Contractor shall allow the maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this contract.

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FOREST HILL CEMETERY MASONRY REPAIRS TO THE RECEIVING VAULT AND CHAPEL CONTRACT NO. 7030

IN WITNESS WHEREOF, the Contractor has hereunto set his/her hand and seal and the City has caused these presents to be sealed with its corporate seal and to be subscribed by its Mayor and City Clerk the day and year first above written.

Countersigned:	JOE DANIELS CONSTRUCTION CO., INC	
)	Company Name	
Here el. Sainsber 75/22/13 Witness Date		5/22/13 Date
•	Président Noseph A., Daniels	Date
Keea I. Sainsbury 5/22/13	Topald my Tanes	5/22/13
Witness Date	Secretary	Date
Keea I. Sainsbury	Jerrald M. Daniels	
CITY OF MADISON, WISCONSIN		
Provisions have been made to pay the liability that will accrue under this contract.	Approved as to form:	
that will accide under this contract.	Λ	
Dayley 1	ture Zilhow for	
Finande/Director	City Attorney	
Signed this	20 /3	
harda Tulpor	Matte (Sheet 5/30/13	
Witness	Mayor	Date
Elm Des 5/28/13	Markett Whol-Achl 5	128/12
Witness	City Clerk	Date

Bond No. 1200013

SECTION I: PAYMENT AND PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we principal, and <u>Cincinnati Insurance Company</u> Company of <u>Cincinnati, Ohio</u> as Madison, Wisconsin, in the sum of <u>ONE HUNDRED EIGHTY-FIVE \$143,785.00</u>) Dollars, law which sum to the City of Madison, we hereby be administrators firmly by these presents.	y surety, are held and firmly bound unto the City of RED FOURTY-THREE THOUSAND AND SEVEN ful money of the United States, for the payment of
The condition of this Bond is such that if the above perform all of the terms of the Contract entered into be construction of:	e bounden shall on his/her part fully and faithfully petween him/herself and the City of Madison for the
FOREST HILL CEMETERY MASONRY REI CHAF CONTRACT	PEL
in Madison, Wisconsin, and shall pay all claims for prosecution of said work, and save the City harmless in the prosecution of said work, and shall save harml (under Chapter 102, Wisconsin Statutes) of employees to be void, otherwise of full force, virtue and effect. Signed and sealed this 22nd day o	from all claims for damages because of negligence less the said City from all claims for compensation
olyned and sealed thisday o	fmay 2013
Countersigned: Leea el. Saursburg Witness Keea I. Sainsburg MALL M Domus Secretary	JOE DANIELS CONSTRUCTION CO., INC. Company Name (Principal) Plesident Joseph A. Daniels Seal (none
Jerrald M. Daniels	
Approved as to form: Approved as to form: City Attorney	CINCINNATI INSURANCE COMPANY Surety Seal Salary Employee X Commission
City Attorney	Attorney-in-Fact
This certifies that I have been duly licensed as an a License No. 2349196 for the year 20_authority to execute this payment and performance bon	13 , and appointed as attorney-in-fact with
May 22, 2013	/ nt A v-
Date ·	Agent\ Patrick A. McKenna - Attorney-in-Fact

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THE CINCINNATI INSURANCE COMPANY

Fairfield, Ohio

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That THE CINCINNATI INSURANCE COMPANY, a corporation organized under the laws of the State of Ohio, and having its principal office in the City of Fairfield, Ohio, does hereby constitute and appoint

Tim Hausmann; Jeff Hausmann; Steven L. Squires; Sheila Dickey; Judith A. Walker; Patrick A. McKenna: Brooke L. Parker and/or Kelsey Jacobson

of Madison, Wisconsin

its true and lawful Attorney(s)-in-Fact to sign, execute, seal

and deliver on its behalf as Surety, and as its act and deed, any and all bonds, policies, undertakings, or other like instruments, as follows:

Any such obligations in the United States, up to

Thirty Million and No/100 Dollars (\$30,000,000.00). This appointment is made under and by authority of the following resolution passed by the Board of Directors of said Company at a meeting held in the principal office of the Company, a quorum being present and voting, on the 6th day of December, 1958, which resolution is still in effect:

"RESOLVED, that the President or any Vice President be hereby authorized, and empowered to appoint Attorneys-in-Fact of the Company to execute any and all bonds, policies, undertakings, or other like instruments on behalf of the Corporation, and may authorize any officer or any such Attorney-in-Fact to affix the corporate seal; and may with or without cause modify or revoke any such appointment or authority. Any such writings so executed by such Attorneys-in-Fact shall be binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 7th day of December, 1973.

"RESOLVED, that the signature of the President or a Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Secretary or Assistant Secretary and the seal of the Company may be affixed by facsimile to any certificate of any such power and any such power of certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company."

IN WITNESS WHEREOF, THE CINCINNATI INSURANCE COMPANY has caused these presents to be sealed with its corporate seal, duly attested by its Vice President this 10th day of October, 2008.

CORPORATI SEAL

STATE OF OHIO COUNTY OF BUTLER THE CINCINNATI INSURANCE COMPANY

On this 10th day of October, 2008, before me came the above-named Vice President of THE CINCINNATI INSURANCE COMPANY, to me personally known to be the officer described herein, and acknowledged that the seal affixed to the preceding instrument is the corporate seal of said Company and the corporate seal and the signature of the officer were duly affixed and subscribed to said instrument by the authority and direction of said corporation.

ASSESSED IN STREET

MARK J. HULLER, Attorney at Law NOTARY PUBLIC - STATE OF OHIO My commission has no expiration

date. Section 147.03 O.R.C.

I, the undersigned Secretary or Assistant Secretary of THE CINCINNATI INSURANCE COMPANY, hereby certify that the above is a true and correct copy of the Original Power of Attorney issued by said Company, and do hereby further certify that the said Power of Attorney is still in full force and effect.

GIVEN under my hand and seal of said Company at Fairfield, Ohio.

this

22 nd day of Mac 7, 2013

George J Schlaum Secretary

BN-1005 (10/08)

SEAL

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SECTION J: PREVAILING WAGE RATES

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PREVAILING WAGE RATE DETERMINATION

Issued by the State of Wisconsin
Department of Workforce Development
Pursuant to s. 66.0903, Wis. Stats.
Issued On: 01/10/2013
Amended On: 02/18/2013

201300080 **DETERMINATION NUMBER: EXPIRATION DATE:** Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2013. If NOT, You MUST Reapply. ALL PUBLIC WORKS PROJECTS UNDER SEC 66.0903, STATS - CITY OF MADISON PROJECT NAME: PROJECT LOCATION: MADISON CITY, DANE COUNTY, WI **CONTRACTING AGENCY:** CITY OF MADISON-ENGINEERING CLASSIFICATION: Contractors are responsible for correctly classifying their workers. Either call the Department of Workforce Development (DWD) with trade or classification questions or consult DWD's Dictionary of Occupational Classifications & Work Descriptions on the DWD website at: dwd.wisconsin.gov/er/prevailing wage rate/Dictionary/dictionary main.htm. Time and one-half must be paid for all hours worked: **OVERTIME:** - over 10 hours per day on prevailing wage projects - over 40 hours per calendar week - Saturday and Sunday - on all of the following holidays: January 1; the last Monday in May: July 4: the 1st Monday in September; the 4th Thursday in November; December The day before if January 1, July 4 or December 25 falls on a Saturday; - The day following if January 1, July 4 or December 25 falls on a Sunday. Apply the time and one-half overtime calculation to whichever is higher between the Hourly Basic Rate listed on this project determination or the employee's regular hourly rate of pay. Add any applicable Premium or DOT Premium to the Hourly Basic Rate before calculating overtime. A DOT Premium (discussed below) may supersede this time and one-half requirement. When a specific trade or occupation requires a future increase, you MUST add the full hourly increase **FUTURE INCREASE:** to the "TOTAL" on the effective date(s) indicated for the specific trade or occupation. PREMIUM PAY: If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whevenever such pay is applicable. This premium only applies to highway and bridge projects owned by the Wisconsin Department of DOT PREMIUM: Transportation and to the project type heading "Airport Pavement or State Highway Construction." DO NOT apply the premium calculation under any other project type on this determination. Pay apprentices a percentage of the applicable journeyperson's hourly basic rate of pay and hourly **APPRENTICES:** fringe benefit contributions specified in this determination. Obtain the appropriate percentage from each apprentice's contract or indenture.

Subjourney wage rates may be available for some of the trades or occupations indicated below with

the exception of laborers, truck drivers and heavy equipment operators. Any employer interested in using a subjourney classification on this project MUST complete Form ERD-10880 and request the applicable wage rate from the Department of Workforce Development PRIOR to using the subjourney

SUBJOURNEY:

worker on this project.

is document MUST BE POSTED by the CONTRACTING AGENCY in at least one conspicuous and easily accessible place on e site of the project. A local governmental unit may post this document at the place normally used to post public notices if are is no common site on the project. This document MUST remain posted during the entire time any worker is employed on project and MUST be physically incorporated into the specifications and all contracts and subcontracts. If you have any estions, please write to the Equal Rights Division, Labor Standards Bureau, P.O. Box 8928, Madison, Wisconsin 53708 or call 38) 266-6861.

le following statutory provisions apply to local governmental unit projects of public works and are set forth below irsuant to the requirements of s. 66.0903(8), Stats.

66.0903 (1) (f) & s. 103.49 (1) (c) "PREVAILING HOURS OF LABOR" for any trade or occupation in any area means 10 urs per day and 40 hours per week and may not include any hours worked on a Saturday or Sunday or on any of the following lidays:

- 1. January 1.
- 2. The last Monday in May.
- 3. July 4.
- 4. The first Monday in September.
- 5. The 4th Thursday in November.
- 6. December 25.
- 7. The day before if January 1, July 4 or December 25 falls on a Saturday.
- 8. The day following if January 1, July 4 or December 25 falls on a Sunday.

66.0903 (10) RECORDS; INSPECTION; ENFORCEMENT.

Each contractor, subcontractor, or contractor's or subcontractor's agent performing work on a project of public works that is bject to this section shall keep full and accurate records clearly indicating the name and trade or occupation of every person reforming the work described in sub. (4) and an accurate record of the number of hours worked by each of those persons and a actual wages paid for the hours worked.

66.0903 (11) LIABILITY AND PENALTIES.

) 1. Any contractor, subcontractor, or contractor's or subcontractor's agent who fails to pay the prevailing wage rate determined the department under sub. (3) or who pays less than 1.5 times the hourly basic rate of pay for all hours worked in excess of prevailing hours of labor is liable to any affected employee in the amount of his or her unpaid wages or his or her unpaid ertime compensation and in an additional amount as liquidated damages as provided under subd. 2., 3., whichever is uplicable.

If the department determines upon inspection under sub. (10) (b) or (c) that a contractor, subcontractor, or contractor's or bcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less an 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the department shall der the contractor to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime impensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime impensation as liquidated damages within a period specified by the department in the order.

In addition to or in lieu of recovering the liability specified in subd. 1. as provided in subd. 2., any employee for and in behalf of at employee and other employees similarly situated may commence an action to recover that liability in any court of competent isdiction. If the court finds that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the evailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for hours worked in excess of the prevailing hours of labor, the court shall order the contractor, subcontractor, or agent to pay to suffected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional nount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages. No employee may be a party plaintiff to an action under subd. 3. unless the employee consents in writing to become a party of the consent is filed in the court in which the action is brought. Notwithstanding s. 814.04 (1), the court shall, in addition to any dgment awarded to the plaintiff, allow reasonable attorney fees and costs to be paid by the defendant.

BUILDING OR HEAVY CONSTRUCTION

ludes sheltered enclosures with walk-in access for the purpose of housing persons, employees, machinery, equipment or supplies and non-sheltered work such as canals, dams, dikes, reservoirs, storage tanks, etc. A sheltered enclosure need not be "habitable" in order to be considered a building. The installation of machinery and/or equipment, both above and below grade level, does not change a project's character as a building. On-site grading, utility work and landscaping are included within this definition. Residential buildings of four (4) stories or less, agricultural buildings, parking lots and driveways are NOT included within this definition.

	SKILLED TRADES			
CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	TOTAL \$
101	Acoustic Ceiling Tile Installer	30.16	15.31	45.47
102	Boilermaker	31.09	24.52	55.61
103	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add \$.80 on 6/1/2013 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.01	17.35	49.36
	Cabinet Installer	30.16	15.31	45.47
105	Carpenter	30.16	15.31	45.47
106	Carpet Layer or Soft Floor Coverer	30.16	15.31	45.47
107	Cement Finisher	31.48	13.19	44.67
108	Drywall Taper or Finisher	25.10	14.78	39.88
109	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.94	18.80	51.74
110	Elevator Constructor	44.94	23.84	68.78
111	Fence Erector	22.50	3.98	26.48
112	Fire Sprinkler Fitter	36.07	18.60	54.67
113	Glazier	37.13 ·	12.32	49.45
114	Heat or Frost Insulator	33:93	23.26	57.19
115	Insulator (Batt or Blown)	27.47	19.16	46.63
	Ironworker	30.90	19.11	50.01
117	Lather	30.16	15.31	45.47
118	Line Constructor (Electrical)	37.05	16.94	53.99

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<u>ODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
19	Marble Finisher	20.00	0.00	20.00
20	Marble Mason	32.01	16.85	48.86
21	Metal Building Erector	18.05	8.08	26.13
22	Millwright	31.76	15.36	47.12
23	Overhead Door Installer	13.50	0.00	13.50
24	Painter	24.80	14.78	39.58
25	Pavement Marking Operator	30.00	0.00	30.00
26	Piledriver	30.66	15.31	45.97
27	Pipeline Fuser or Welder (Gas or Utility)	30.18	19.29	49.47
29	Plasterer	30.03	16.36	46.39
30	Plumber	36.17	15.37	51.54
32	Refrigeration Mechanic	42.45	16.71	59.16
33	Roofer or Waterproofer	30.40	2.23	32.63
 34	Sheet Metal Worker	34.23	20.19	54.42
35	Steamfitter	41.20	16.28	57.48
37	Teledata Technician or Installer Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	21.89	11.85	33.74
38	Temperature Control Installer	41.20	16.21	57.41
39	Terrazzo Finisher Future Increase(s): Add \$.80 on 6/1/2013	26.57	16.50	43.07
40	Terrazzo Mechanic	29.51	17.63	47.14
41	Tile Finisher Future Increase(s): Add \$.80/hr on 6/1/2013.	23.77	16.50	40.27
12	Tile Setter Future Increase(s): Add \$.80/hr on 6/1/2013.	29.71	16.50	46.21
43	Tuckpointer, Caulker or Cleaner Future Increase(s): Add \$.80 on 6/1/2013	32.01	17.35	49.36

Premium Increase(s):
DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.

Detell	Timation No. 201500000			Page 5 of 2
ODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
144	Underwater Diver (Except on Great Lakes)	34.16	15.31	 ў 49.47
146	Well Driller or Pump Installer Future Increase(s): Add \$.20/hr on 06/01/2013.	25.32	15.45	40.77
147	Siding Installer	37.20	17.01	54.21
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	28.24	15.10	43.34
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	29.64	14.64	44.28
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	24.00	11.57	35.57
	TRUCK DRIVERS	- 15 Anna -		
CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
 ∠∪1	Single Axle or Two Axle	31.89	17.98	49.87
203	Three or More Axle	18.00	11.45	29.45
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1/hr on 6/2/2013.	32.39	18.46	50.85
205	Pavement Marking Vehicle	20.85	11.02	31.87
207	Truck Mechanic	18.00	11.45	29.45
	LABORERS			
CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
301	General Laborer Future Increase(s): Add \$.75/hr. on 06/03/2013 Premium Increase(s): Add \$1.00/hr for certified welder; Add \$.25/hr for mason tender	24.19	13.90	38.09
<u> </u>	Asbestos Abatement Worker	18.00	0.00	18.00
303	Landscaper	15.00	3.90	18.90
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	20.94	12.65	33.59

CLOTT	milation No. 201300000			raye o oi z
ODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	<u>TOTAL</u>
	Mandata Mandata Mandata Anno and Anno a	\$	\$	\$
11	Fiber Optic Laborer (Outside, Other Than Concrete Encased) Premium Increase(s): DOT PREMIUMS: Pay two times the hourly basic rate on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	18.31	12.67	30.98
14	Railroad Track Laborer	23.41	6.91	30.32
15	Final Construction Clean-Up Worker	24.69	12.90	37.59
	HEAVY EQUIPMENT OPERATORS SITE PREPARATION, UTILITY OR LANDSCAPIN			
ODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
JUL	TRADE OR OCCUPATION	\$	\$	\$
01	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Milling Machine; Boring Machine (Directional, Horizontal or Vertical); Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfgr's Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Crane, Shovel, Dragline, Clamshells; Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Grader or Motor Patrol; Master Mechanic; Mechanic or Welder; Robotic Tool Carrier (With or Without Attachments); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Tractor (Scraper, Dozer, Pusher, Loader); Trencher (Wheel Type or Chain Type Having Over 8 Inch Bucket). Future Increase(s): Add \$1/hr on 6/2/2013.		18.46	50.85
2	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Environmental Burner; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Jeep Digger; Screed (Milling Machine); Skid Rig; Straddle Carrier or Travel Lift; Stump Chipper; Trencher (Wheel Type or Chain Type Having 8 Inch Bucket & Under). Future Increase(s): Add \$1/hr on 6/2/2013.	32.39	18.46	50.85
	Air Compressor (&/or 400 CFM or Over); Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Greaser; High Pressure Utility Locating Machine (Daylighting Machine); Mulcher; Oiler; Post Hole Digger or Driver; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1/hr on 6/2/2013.	30.32	18.46	48.78

DE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE <u>BENEFITS</u> \$	TOTAL \$
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	37.45	19.45	56.90
505	Work Performed on the Great Lakes Including Crane or Backhoe Operator; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder; 70 Ton & Over Tug Operator. Future Increase(s): Add \$2.19/hr on 01/01/2013; Add \$2.00/hr on 01/01/2014. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	38,80	20.17	58.97
506	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery. Future Increase(s): Add \$2.08/hr on 01/01/2013; Add \$2.00/hr on 01/01/2014.	34.50	20.04	54.54
507	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY. Future Increase(s): Add \$1.88/hr on 01/01/2013; Add \$2.00/hr on 01/01/2014.	28.70	19.86	48.56

HEAVY EQUIPMENT OPERATORS EXCLUDING SITE PREPARATION, UTILITY, PAVING LANDSCAPING WORK

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
508	Boring Machine (Directional); Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	35.12	18.46	53.58
	Future Increase(s):		•	

Add \$1/hr on 6/2/2013.

Premium Increase(s):
Add \$.50/hr for >200 Ton / Add \$1/hr at 300 Ton / Add
\$1.50 at 400 Ton / Add \$2/hr at 500 Ton & Over.

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY	HOURLY	
<u>ODE</u>	TRADE OR OCCUPATION	BASIC RATE OF PAY \$	FRINGE <u>BENEFITS</u> \$	TOTAL \$
09	Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Boring Machine (Horizontal or Vertical); Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs. & Under; Crane, Towel Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts & Gantrys (20,000 Lbs. & Over). Future Increase(s): Add \$1/hr on 6/2/2013. Premium Increase(s): Add \$.25/hr for all >45 Ton lifting capacity cranes.	34.12	18.46	52.58
10	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type).	32.42	17.97	50.39
11	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Environmental Burner; Gantrys (Under 20,000 Lbs.); Grader or Motor Patrol; High Pressure Utility Locating Machine (Daylighting Machine); Manhoist; Material or Stack Hoist; Mechanic or Welder; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tining or Curing Machine; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add \$1/hr on 6/2/2013.	32.39	18.46	50.85
12	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Grout Pump; Hoist (Tugger, Automatic); Industrial Locomotives; Jeep Digger; Lift Slab Machine; Mulcher; Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames. Future Increase(s): Add \$1/hr on 6/2/2013.	30.32	18.46	48.78

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<u>DE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL
513	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Boatmen (NOT Performing Work on the Great Lakes); Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Elevator; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Forklift; Generator (&/or 150 KW or Over); Greaser; Heaters (Mechanical); Loading Machine (Conveyor); Oiler; Post Hole Digger or Driver; Prestress Machine; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1/hr on 6/2/2013.		18.46	48.15
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment). Future Increase(s): Add \$2/hr on 1/1/2013.	34.89	20.59	55.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment). Future Increase(s): Add \$1.60/hr on 06/01/2013; Add \$1.60/hr on 06/01/2014; Add \$1.65/hr on 06/01/2015.	31.32	17.95	49.27
516	Fiber Optic Cable Equipment Future Increase(s): Add \$1.75/hr on 02/01/2013; Add \$1.75/hr on 02/01/2014	26.69	16.65	43.34

SEWER, WATER OR TUNNEL CONSTRUCTION

cludes those projects that primarily involve public sewer or water distribution, transmission or collection systems and lated tunnel work (excluding buildings).

	SKILLED TRADES			
<u> DDE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	TOTAL \$
)3	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add \$1.45/hr on 6/01/2013 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.80	16.87	52.67
)5	Carpenter Future Increase(s): Add \$.75/hr on 6/3/2013. Add \$1.25/hr on 6/2/2014. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.93	19.81	52.74
)7	Cement Finisher Future Increase(s): Add \$1.87 on 6/1/13; Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	32.09	16.13	48.22
)9	Electrician Future Increase(s): Add \$1.60/hr on 6/1/2013. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.20	21.71	53.91
11	Fence Erector	22.50	3.98	26.48
6	Ironworker	30.90	19.11	50.01
18	Line Constructor (Electrical)	37.05	16.94	53.99
<u>?</u> 5	Pavement Marking Operator	28.10	15.00	43.10
26	Piledriver	30.66	15.31	45.97
80	Plumber	36.97	17.66	54.63

CÓDE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE <u>BENEFITS</u> \$	TOTAL \$
135	Steamfitter	41.20	16.28	57.48
137	Teledata Technician or Installer	21.26	11.75	33.01
143	Tuckpointer, Caulker or Cleaner	32.01	16.85	48.86
144	Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90
146	Well Driller or Pump Installer	21.00	2.23	23.23
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	28.24	15.10	43.34
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	29.64	14.64	44.28
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65
	TRUCK DRIVERS			
Œ	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
201	Single Axle or Two Axle	25.87	13.00	38.87
203	Three or More Axle	17.54	13.85	31.39
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	31.89	17.98	49.87
205	Pavement Marking Vehicle	20.85	11.02	31.87
207	Truck Mechanic	17.00	0.00	17.00
	LABORERS			
ODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
301	General Laborer Future Increase(s): Add \$.80/hr. on 06/03/2013 Premium Increase(s): Add \$.20 for blaster, bracer, manhole builder, caulker, bottomman and power tool; Add \$.55 for pipelayer; Add \$1.00 for tunnel work 0-15 lbs. compressed air; Add \$2.00 for over 15-30 lbs. compressed air; Add \$3.00 for over 30 lbs. compressed air.	25.53	13.89	39.42

retern	nination No. 201300080			Page 12 of 28
<u>ODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE <u>BENEFITS</u> \$	TOTAL \$
04	Flagperson or Traffic Control Person	17.33	15.53	32.86
11	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.81	12.22	30.03
14	Railroad Track Laborer	23.41	6.91	30.32
***************************************	HEAVY EQUIPMENT OPERATORS SEWER, WATER OR TUNNEL WOR			
<u>ODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
21	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Master Mechanic; Pile Driver. Future Increase(s): Add \$1/hr on 6/2/2013. Premium Increase(s): Add \$50/hr for >200 Ton / Add \$1/hr at 300 Ton / Add \$1.50 at 400 Ton / Add \$2/hr at 500 Ton & Over.	\$ 35.12	\$ 18.46	\$ 53.58
22	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Spreader & Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skid Rig; Telehandler; Traveling Crane (Bridge Type). Future Increase(s): Add \$1/hr on 6/2/2013.	32.92	18.46	51.38
23	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Boring Machine (Horizontal or Vertical); Bulldozer or Endloader (Over 40 hp); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Manhoist; Material or Stack Hoist; Mechanic or Welder; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add \$1/hr on 6/2/2013.		18.46	50.85

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY	HOURLY	
CODE	TRADE OR OCCUPATION	BASIC RATE OF PAY \$	FRINGE BENEFITS \$	TOTAL \$
524	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Environmental Burner; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Hoist (Tugger, Automatic); Grout Pump; Jeep Digger; Lift Slab Machine; Mulcher; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Tining or Curing Machine; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	31.89	18.11	50.00
525	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Loading Machine (Conveyor); Post Hole Digger or Driver; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1/hr on 6/2/2013.	29.69	18.46	48.15
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	30.44	19.10	49.54
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	37.45	19.45	56.90
528	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	37.45	19.45	56.90
529	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	27.75	19.15	46.90
530	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under), Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	27.75	19.15	46.90

AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION

icludes all airport projects (excluding buildings) and all projects awarded by the Wisconsin Department of ransportation (excluding buildings).

	SKILLED TRADES				
ODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$	
03	Bricklayer, Blocklayer or Stonemason	35.58	19.20	54.78	
05	Carpenter	30.16	15.31	45.47	
07	Cement Finisher Future Increase(s): Add \$1.87 on 6/1/13; Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	32.09	16.13	48.22	
)9	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.94	18.80	51.74	
11	Fence Erector	28.00	4.50	32.50	
16	Ironworker	30.90	19.11	50.01	
18	Line Constructor (Electrical)	31.29	15.34	46.63	
24	Painter	26.65	13.10	39.75	
25	Pavement Marking Operator	29.22	16.71	45.93	
26	Piledriver	30.66	15.31	45.97	
33	Roofer or Waterproofer	30.40	2.23	32.63	
37	Teledata Technician or Installer	21.26	11.75	33.01	
13	Tuckpointer, Caulker or Cleaner	32.01	16.85	48.86	
14	Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90	
50	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.64	17.00	46.64	
51	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	15,09	50.59	

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(<u>DE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	<u>TOTAL</u> \$
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65
	TRUCK DRIVERS			
CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
201	Single Axle or Two Axle	33.22	18.90	52.12
203	Three or More Axle Future Increase(s): Add \$1.85/hr on 6/1/2013. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	23.31	17.13	40.44
204 (Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/labor-wages-eeo/index.shtm.	27.77	19.90	47.67
205	Pavement Marking Vehicle	23.84	14.94	38.78
206	Shadow or Pilot Vehicle	33.22	18.90	52.12
207	Truck Mechanic	22.50	16.19	38.69

	LABORERS			
<u>DDE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
)1	Future Increase(s): Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014. Premium Increase(s): Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	28.35	13.90	42.25
)2	Asbestos Abatement Worker	18.00	0.00	18.00
)3	Future Increase(s): Add \$1.70/hr on 6/1/13; Add \$1.60/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	28.35	13.90	42.25
4	Flagperson or Traffic Control Person Future Increase(s): Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	24.70	13.90	38.60
1	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.81	12.22	30.03
4	Railroad Track Laborer	23.41	6.91	30.32

HEAVY EQUIPMENT OPERATORS AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE <u>BENEFITS</u> \$	TOTAL \$
531	Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/labor-wages-eeo/index.shtm.	35.22	19.90	55.12
532	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick,	34.72	19.90	54.62

Future Increase(s):

Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.

Premium Increase(s):
DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/labor-wages-eeo/index.shtm.

With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.

Premium Increase(s):

ODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE <u>BENEFITS</u> \$	TOTAL \$
33	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vlbratory/Sonic, Manual or Remote); Concrete Breaker (Large, Auto, Vlbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/		19.90	54.12
	Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.	33.96	19.90	53.86

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535	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/labor-wages-eeo/index.shtm.	33.67	19.90	53.57
536	Fiber Optic Cable Equipment.	25.74	15.85	41.59
537	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	37.45	19.45	56.90
538	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	37.45	19.45	56.90
	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	27.75	19.15	46.90
	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	27.75	19.15	46.90

LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION

icludes roads, streets, alleys, trails, bridges, paths, racetracks, parking lots and driveways (except residential or gricultural), public sidewalks or other similar projects (excluding projects awarded by the Wisconsin Department of ransportation).

	SKILLED TRADES				
<u>ODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL	
03	Bricklayer, Blocklayer or Stonemason	33.00	15.00	48.00	
05	Carpenter	30.16	15.31	45.47	
07	Cement Finisher	31.48	15.68	47.16	
09	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.94	18.80	51.74	
11	Fence Erector	22.50	3.98	26.48	
16	Ironworker	30.90	19.11	50.01	
18	Line Constructor (Electrical)	37.05	16.94	53.99 (
24	Painter	24.80	14.78	39.58	
25	Pavement Marking Operator	28.10	15.00	43.10	
26	Piledriver	30.66	15.31	45.97	
33	Roofer or Waterproofer	30.40	2.23	32.63	
37	Teledata Technician or Installer	21.26	11.75	33.01	
43	Tuckpointer, Caulker or Cleaner	32.01	16.85	48.86	
44	Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90	
50	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.64	14.55	44.19	
51	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	30.60	14.64	45.24	
52	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51	
53	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04	
54	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65	

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Railroad Track Laborer

,-	TRUCK DRIVERS			
CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
201	Single Axle or Two Axle	25.87	13.00	38.87
203	Three or More Axle	17.00	0.00	17.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1/hr on 6/2/2013.	32.39	18.46	50.85
205	Pavement Marking Vehicle	20.85	11.02	31.87
206	Shadow or Pilot Vehicle	25.87	13.00	38.87
207	Truck Mechanic	17.00	0.00	17.00
	LABORERS			
CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
(General Laborer	27.20	13.37	40.57
303	Landscaper	18.25	1.11	19.36
304	Flagperson or Traffic Control Person	17.33	15.53	32.86

17.81

23.41

12.22

6.91

30.03

30.32

Fiber Optic Laborer (Outside, Other Than Concrete Encased)

	EQUIPMENT OPERATORS
CONCRETE	PAVEMENT OR BRIDGE WORK

<u>DDE</u>	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
41	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/labor-wages-eeo/index.shtm.	35.22	19.90	55.12
42	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or	34.72	19.90	54.62

Backhoe (Track Type) Having a Mfgr.'s Rated Capacity Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under, Crane, Tower Crane Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.

Future Increase(s):
Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.

Premium Increase(s):

DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/labor-wages-eeo/index.shtm.

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY	HOURLY	
CODE	TRADE OR OCCUPATION	BASIC RATE OF PAY \$	FRINGE BENEFITS \$	TOTAL \$
543	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/labor-wages-eeo/index.shtm.	34.22	19.90	54.12
544	Backfiller; Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot. wi.gov/hcci/labor-wages-eeo/index.shtm.	33.96	19.90	53.86

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY	HOURLY	
<u>ODE</u>	TRADE OR OCCUPATION	BASIC RATE OF PAY \$	FRINGE BENEFITS \$	TOTAL \$
45	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	29.82	17.98	47.80
46	Fiber Optic Cable Equipment.	25.74	15.85	41.59
47	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	37.45	19.45	56.90
48	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	37.45	19.45	56.90
49	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or more); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	27.75	19.15	46.90
50	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	27.75	19.15	46.90
	HEAVY EQUIPMENT OPERATORS ASPHALT PAVEMENT OR OTHER WO)RK		
<u>ODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
51	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	34.62	17.98	52.60
52	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1/hr on 6/2/2013.		18.46	51.38

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY	HOURLY	
CODE	TRADE OR OCCUPATION	BASIC RATE OF PAY \$	FRINGE BENEFITS \$	TOTAL \$
553	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Laser/Screed; Concrete Slipform Placer Curb & Gutter Machine; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): Add \$1/hr on 6/2/2013.	32.39	18.46	50.85
(Backfiller; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self-Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.	33.67	19.55	53.22
	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.	33.67	19.55	53.22
556	Fiber Optic Cable Equipment.	25.74	15.85	41.59

Overhead Door Installer

Pavement Marking Operator

Painter

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RESIDENTIAL OR AGRICULTURAL CONSTRUCTION

cludes single family houses or apartment buildings of no more than four (4) stories in height and all buildings, ructures or facilities that are primarily used for agricultural or farming purposes, excluding commercial buildings. For assification purposes, the exterior height of a residential building, in terms of stories, is the primary consideration. All cidental items such as site work, driveways, parking lots, private sidewalks, private septic systems or sewer and ater laterals connected to a public system and swimming pools are included within this definition. Residential sildings of five (5) stories and above are NOT included within this definition.

	SKILLED TRADES				
<u>DDE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$	
01	Acoustic Ceiling Tile Installer	19.50	11.10	30.60	
02	Boilermaker	31.09	24.52	55.61	
)3	Bricklayer, Blocklayer or Stonemason	23.00	0.00	23.00	
)4	Cabinet Installer	16.25	3.22	19.47	
)5	Carpenter	30.16	1.36	31.52	
)6	Carpet Layer or Soft Floor Coverer	23.95	6.48	30.43	
)7	Cement Finisher	22.46	2.71	25.17	
)8	Drywall Taper or Finisher	15.50	0.00	15.50	
)9	Electrician	17.00	13.64	30.64	
10	Elevator Constructor	44.94	23.84	68.78	
11	Fence Erector	18.52	5.93	24.45	
12	Fire Sprinkler Fitter	36.07	18.60	54.67	
13	Glazier	37.13	12.32	49.45	
14	Heat or Frost Insulator	35.00	0.00	35.00	
15	Insulator (Batt or Blown)	18.50	13.98	32.48	
16	Ironworker	30.90	19.11	50.01	
17	Lather	30.16	1.36	31.52	
19	Marble Finisher	16.50	2.38	18.88	
20	Marble Mason	23.00	0.00	23.00	
21	Metal Building Erector	16.52	1.82	18.34	

17.00

23.00

28.10

0.00

11.27

15.00

17.00

34.27

43.10

COD	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
129	Plasterer	20.00	0.00	20.00
130	Plumber	38.90	0.00	38.90
132	Refrigeration Mechanic	33.00	1.79	34.79
133	Roofer or Waterproofer	17.50	3.73	21.23
134	Sheet Metal Worker	21.03	3.40	24.43
135	Steamfitter	41.20	16.28	57.48
137	Teledata Technician or Installer	19.23	1.46	20.69
138	Temperature Control Installer	21.00	0.00	21.00
139	Terrazzo Finisher	26.57	16.00	42.57
140	Terrazzo Mechanic	30.01	17.13	47.14
141	Tile Finisher	20.60	4.88	25.48
142	Tile Setter	19.00	0.00	19.00
143	Tuckpointer, Caulker or Cleaner	32.50	2.84	35.34
<i></i>	Well Driller or Pump Installer	19.00	7.30	26.30
147	Siding Installer	19.07	0.00	19.07
	TRUCK DRIVERS			
CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
201	Single Axle or Two Axle	28.05	4.18	32.23
203	Three or More Axle	20.00	4.37	24.37
205	Pavement Marking Vehicle	20.85	11.02	31.87
207	Truck Mechanic	19.00	1.85	20.85
	LABORERS			
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	TOTAL \$
301	General Laborer	19.80	7.22	27.02
302	Asbestos Abatement Worker	18.00	6.24	24.24
303	Landscaper	13.15	6.51	19.66

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ODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE <u>BENEFITS</u> \$	TOTAL (
[1	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.81	12.22	30.03
15	Final Construction Clean-Up Worker	15.00	0.00	15.00
	HEAVY EQUIPMENT OPERATORS RESIDENTIAL OR AGRICULTURAL CONST	RUCTION	Plant	
<u>DDE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY \$	HOURLY FRINGE BENEFITS \$	<u>TOTAL</u> \$
57	Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type); Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vlbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Crane, Shovel, Dragline, Clamshells; Forestry Equipment, Tlmbco, Tree Shear, Tub Grinder, Processor; Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type); WInches & A-Frames.	31.89	18.20	50.09
58	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Backfiller; Belting, Burlap, Texturing Machine; Boiler (Temporary Heat); Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over) Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Jeep Digger; Lift Slab Machine; Mulcher; Oiler; Post Hole Digger or Driver; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Roller (Rubber Tire, 5 Tons or Under); Screed (Milling Machine); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Stump Chipper; Telehandler; Vibratory Hammer or Extractor, Power Pack.	;	4.91	33.61