

BID PACKAGE

**CUYAHOGA COUNTY
DEPARTMENT OF PUBLIC WORKS**

HIGHWAY CONSTRUCTION

**2013-2014 Countywide Preventative Maintenance
Crack Seal**

CONTENTS:

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PROPOSAL PACKAGE
DEPARTMENT OF PUBLIC WORKS
HIGHWAY CONSTRUCTION
2013-2014 COUNTYWIDE PREVENTATIVE MAINTENANCE
CRACK SEAL

COUNTY REQUISITION NUMBER RQ- 27992

BID DUE DATE: AUGUST 1, 2013
(BIDS DUE AT 2:00 PM LOCAL TIME)

PROPOSALS MUST BE SEALED AND ADDRESSED TO:

CUYAHOGA COUNTY
OFFICE OF PROCUREMENT AND DIVERSITY
COUNTY ADMINISTRATION BUILDING
1219 ONTARIO STREET
ROOM 110
CLEVELAND, OHIO 44113

PLANS AND SPECIFICATIONS PREPARED BY:

CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS

LENORA M. LOCKETT
DIRECTOR OF PROCUREMENT AND DIVERSITY

JEANNE SCHMOTZER
CLERK OF COUNCIL

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SPECIALIZE CONSTRUCTION INCORATED
2013 – 2014 COUNTYWIDE MAINTENANCE PROGRAM

CRACK SEAL

CONTRACT COMPILATION SEQUENCE

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-
- LEGAL NOTICE – INSTRUCTION TO BIDDERS**
 - REQUIRED BID DOCUMENTS**
 - SAMPLE CONTRACT FORMS**
 - PREVAILING WAGE RATES**
 - SBE RELATED DOCUMENTS**
 - SPECIFICATIONS BOOKLET**

**COUNTY OF CUYAHOGA, OHIO FORM OF AGREEMENT
UNIT PRICE CONTRACT**

THIS AGREEMENT, made this _____ day of _____, 20____, between the County of Cuyahoga, Ohio on behalf of the Department of Public Works/County Engineer, hereinafter

called the County of Cuyahoga, Ohio, and Specialized Construction Incorporated, an Ohio Corporation, with offices located at 711 Harvard Avenue, Cuyahoga Heights, Ohio 44105.

and _____ successors, executors, administrators and assigns, hereinafter called the Contractor. WITNESSETH: That for and in consideration of payments hereinafter mentioned, to be made by the County of Cuyahoga, Ohio, the Contractor agrees to furnish all materials, appliances, tools, and labor, and perform all the work required for:

2013 - 2014 Countywide Maintenance Program - Crack Seal

The County of Cuyahoga, Ohio, according to the plans and specifications and estimates and to the satisfaction and acceptance of the party of the first part.

The Contractor further covenants and agrees that the following papers shall be bound with or accompany and be an essential part of this contract: Notices to bidders and proposals upon which this contract was awarded; Plans and special specifications for the improvement contemplated by this contract; The construction and material specifications together with the general clauses and covenants of the County of Cuyahoga, Ohio in effect at the time this contract is entered into; Contractor's Performance Bond and this Agreement.

It is expressly stipulated and agreed that the party of the Contractor hereby covenants and agrees that he has full knowledge of the site, plans, specifications, and conditions relative to the performance of the work contemplated by this contract and made an essential part thereof, and that the affixing of his/her signature hereto shall constitute complete acceptance of and compliance with aforesaid plans, specifications, and conditions.

In consideration of the premises the County of Cuyahoga, Ohio agrees to pay to the Contractor a certain sum of money which shall be determined by the work actually performed by the party of the second part calculated upon the basis of completed units for each item of the contract, and the unit price of each item as set forth in the proposal attached hereto and made a part hereof. This aforesaid sum for the purposes of agreement and appropriation, and until actually calculated as aforementioned upon completion of the work, shall be understood to be

Five Hundred Twenty-four Thousand Five Hundred and
00/100

(\$524,500.00)

BY ENTERING INTO THIS CONTRACT I AGREE ON BEHALF OF THE CONTRACTING OR SUBMITTING BUSINESS ENTITY, ITS OFFICERS, EMPLOYEES, SUBCONTRACTORS, SUBGRANTEES, AGENTS OR ASSIGNS, TO CONDUCT THIS TRANSACTION BY ELECTRONIC MEANS BY AGREEING THAT ALL DOCUMENTS REQUIRING COUNTY SIGNATURES MAY BE EXECUTED BY ELECTRONIC MEANS, AND THAT THE ELECTRONIC SIGNATURES AFFIXED BY THE COUNTY TO SAID DOCUMENTS SHALL HAVE THE SAME LEGAL EFFECT AS IF THAT SIGNATURE WAS MANUALLY AFFIXED TO A PAPER VERSION OF THE DOCUMENT. I ALSO AGREE ON BEHALF OF THE AFOREMENTIONED ENTITIES AND PERSONS, TO BE BOUND BY THE PROVISIONS OF CHAPTERS 304 AND 1306 OF THE OHIO REVISED CODE AS THEY PERTAIN TO ELECTRONIC TRANSACTIONS, AND TO COMPLY WITH THE ELECTRONIC SIGNATURE POLICY OF THE COUNTY OF CUYAHOGA, OHIO.

IN WITNESS WHEREOF, the party of the County of Cuyahoga, Ohio and the Contractor through its duly authorized representatives have hereunto subscribed and affixed their respective signatures.

IF AN INDIVIDUAL, DOING BUSINESS UNDER A FIRM NAME, SO STATE, GIVING BOTH NAMES.

IF A PARTNERSHIP, SO STATE, GIVING NAMES AND POST OFFICE ADDRESSES OF ALL PARTNERS ON LINES OPPOSITE.

IF A CORPORATION, GIVE FULL CORPORATION NAME AND STATE UNDER THE LAWS OF WHAT STATE YOU ARE INCORPORATED; OFFICER MUST INCLUDE SIGNATURE, TITLE, AND FURNISH A COPY, CURRENTLY DATED AND CERTIFIED BY THE SECRETARY OF THE CORPORATION OF A RESOLUTION BY THE BOARD OF DIRECTORS AUTHORIZING THE PARTICULAR OFFICER TO SIGN THE CONTRACT ON BEHALF OF THE COMPANY AND FURTHER CERTIFY THAT THE RESOLUTION IS IN FULL FORCE AND EFFECT.

County of Cuyahoga, Ohio

Edward FitzGerald, County Executive

Edward FitzGerald, County Executive
2013-10-11 17:22:35

FIRM:

Specialized Construction Incorporated

SIGNATURE:

PRINTED NAME:

TITLE:

X John J. Alberty
X JOHN ALBERTY
President

**Prevailing Wages
Public Improvement Agreement**

This agreement is made this _____ day of _____ A.D., _____ between the County of Cuyahoga, Ohio and the Contractor, Specialized Construction Incorporated

I hereby agreed:

1. That the County of Cuyahoga, Ohio shall obtain the prevailing wage rate determination and attach it to the specifications for the work and during otherwise comply with Ohio Revised Code, Section 4155.04.
2. That the contract between the County of Cuyahoga, Ohio and the Contractor and the Contract between the Contractor and all subcontractors shall contain a provision requiring all contractors and subcontractors performing work on the project to pay a rate of wages not less than the wage rate determined by the Department of Industrial Relations, State of Ohio for the project.
3. That the Contractor shall post in a prominent and accessible place on the site of the project a legible statement of the schedule of wage rates specified in the contract to the various classifications of laborers, workers, and mechanics employed and shall cause the statement to remain posted the life of each contract pursuant to Ohio Revised Code, Section 4115.07.
4. That the County of Cuyahoga, Ohio shall give notice to the Contractor and the Contractor shall give notice to the subcontractors that they shall file certified payroll reports and the affidavit required by Ohio Revised Code, Sections 4115.07 and 4115.071.
5. That the County of Cuyahoga, Ohio shall appoint a Prevailing Wage Coordinator who shall exercise the duties imposed by the Ohio Revised Code, Section 4115.071 and as set forth by the Ohio Attorney General. The duties of the Prevailing Wage Coordinator are incorporated herein:
 - a) Set up and maintain files containing all contractors' and subcontractors' payroll reports.
 - b) Maintain a list of pay dates.
 - c) Within two (2) weeks after the first payday, receive from each contractor a certified copy of its payroll report. Certified means that it must be sworn to and signed by the Contractor.
 - 1) If the project is to exceed four (4) months, all reports after the initial report (the initial report must be filed within two (2) weeks) can be filed once per month.
 - 2) If the project is to last less than four (4) months, all reports are to be filed weekly after the initial report.
 - d) Monitor compliance with the Prevailing Wage Law, which includes site visits to verify that the required postings and job classifications are being complied with.
 - e) At the completion of the project, the Wage Coordinator is to require an Affidavit of Compliance from each contractor. An affidavit must be sworn and notarized.
 - f) The Coordinator is to report any non-compliance to the Director of the Department of Industrial Relations, State of Ohio in writing.
6. The County of Cuyahoga, Ohio shall notify the Contractor and the Contractor shall notify each subcontractor of the identity of the Prevailing Wage Coordinator.
7. That upon notice of the Prevailing Wage Coordinator or the Department of Industrial Relations to the Contractor of a failure by a contractor or subcontractor to comply with the reporting requirements of the Ohio Revised Code, Section 4115.071 (C), the Contractor shall take such steps as are necessary to cause the contractor, subcontractor, or other person to comply.
8. That, upon notice to the County of Cuyahoga, Ohio by the Department of Industrial of any apparent violation of the requirements of Chapter 1145 by any contractor or subcontractor, the County of Cuyahoga, Ohio shall withhold any further payments to the Contractor on this project.
9. The Contractor shall file a complete list of all subcontractors with the Prevailing Wage Coordinator prior to the start of construction.
10. The Contractor shall be responsible for the compliance with all requirements of Ohio Revised Code, Chapter 4115 with regard to its own work force and all subcontractors.
11. That nothing in this agreement shall be construed as a limitation or restriction on any party to avoid itself of any procedure or remedy available to them in Ohio Revised Code, Chapter 1145.

THE COUNTY OF CUYAHOGA, OHIO

Edward FitzGerald, County Executive

**EDWARD FITZGERALD
COUNTY EXECUTIVE:**

Ed FitzGerald / ak DATE: _____

2013-10-11 17:22:37

CONTRACTOR

FIRM: Specialized Construction Incorporated

SIGNATURE: X [Signature] DATE: 8-12-13

PRINTED NAME: JOHN ALBERTY

TITLE: PRESIDENT

CERTIFICATE OF EXEMPTION

COUNTY OF CUYAHOGA, OHIO
Political Subdivision #29
of the
State of Ohio

The undersigned hereby certifies that the articles of tangible personal property purchased under this certificate were purchased for incorporation into a structure or improvement to real property under a construction contract with the County of Cuyahoga, Ohio, Political Subdivision #29 of the State of Ohio.

PROJECT TITLE/LOCATION: 2013 - 2014 Countywide Maintenance Program - Crack Seal

DATE OF COMMENCEMENT: _____

This certificate shall be considered a part of each order for the specific contract identified above and shall be retained by the vendor. This certificate must be signed by both the contractor/vendor and owner.

Edward FitzGerald, County Executive

Signed

(Contractor/Vendor)

Signed

(Owner)
2013-10-11 17:22:39

By

JOHN ALBERTY

By

Title

PRESIDENT

Title

Address

711 HARVARD AVE

Address

CUYAHOGA HTL OH 44105

Date

8-12-13

Date

DEPARTMENT OF PUBLIC WORKS

ATTACHMENT

TO SPECIFICATIONS FOR CONSTRUCTION CONTRACT

We consent to using the financial institution checked off below for the deposit in escrow of any funds retained by the County of Cuyahoga, Ohio in accordance with Section 153.63 Revised Code in accordance with escrow procedures as required by the County of Cuyahoga, Ohio.

Key Corporation

☐

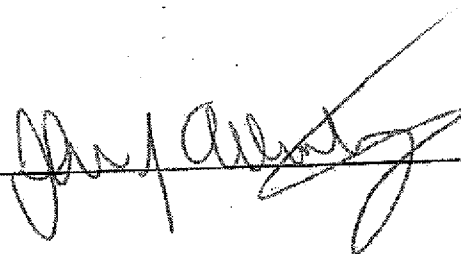
PNC Bank

☒

First Merit Bank

☐

Signature

A handwritten signature in dark ink, appearing to be "John J. [unclear]", is written over a horizontal line.

CORPORATE RESOLUTION

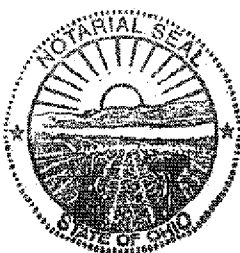
JOHN GALIK, Vice President of Specialized Construction Incorporated, an Ohio Corporation hereby certifies that the following is a true and correct copy of a resolution duly adopted by the Board of Directors of Specialized Construction Incorporated, on February 24, 1998, to wit:

"Resolved, that the President of this Company, namely, JOHN ALBERTI, be and he hereby is authorized and directed to enter into any and all contracts, bid guaranty and performance bonds with CUYAHOGA COUNTY, for the purpose of furnishing labor and materials as to 2013-2014 COUNTYWIDE CLEANUP at such price and upon such terms and conditions, including any amendments or modifications thereto, as said Vice-President in his sole discretion shall deem best, and that said actions shall be binding upon the Corporation."

"Resolved, further, that said Vice-President be, and he further is hereby authorized and directed to execute and deliver unto said Contract other instruments which in his discretion he shall deem necessary to carry out the foregoing resolution."

IN WITNESS HEREOF, I have hereunto set my hand and affixed the seal of said Corporation at 711 Harvard Avenue Cuyahoga Heights, Ohio 44105 this 14 day of FEB, ~~2005~~ 2013 and I further certify that said resolution is still in full force and effect.

John R. Galik
Vice President



LLOYD B. CULPEPPER
Notary Public
In and for the State of Ohio
My Commission Expires
January 21, 2017



BID GUARANTY AND CONTRACT BOND

SUR6030122

(SECTION 153.571 Ohio Revised Code)

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned Specialized Construction, Inc.
as principal and State Automobile Mutual Insurance Company as Surety, are hereby held and firmly bound unto
Cuyahoga County as Oblige in the penal sum of the dollar amount of
Eight hundred fifty thousand the bid submitted by the Principal to the Oblige or
_____ to undertake the project known as:

2013-2014 Countywide Maintenance Crack Sealing

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Oblige, inco
additive or deductive alternate proposals made by the Principal on the date referred to above to the O
are accepted by the Oblige. In no case shall the penal sum exceed the amount of Eight hundred fifty thousand
dollars (\$ 850,000.00). (If the above line is left blank, the penal sum will be the full amount of the F
including alternates. Alternatively, if completed, the amount stated must not be less than the full amo
including alternates, in dollars and cents. A percentage is not acceptable.) For the payment of the pe
and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrator
and assigns.

THE CONDITION OF THE **ABOVE OBLIGATION** IS SUCH, that whereas the above names Principal has submitted a
bid on the above referred to project;

NOW THEREFORE, if the Oblige accepts the bid of the Principal and the Principal fails to enter into a proper
contract in accordance with the bid, plans, details, specifications, and bills of material; and in the event the Principal
pays to the Oblige the difference not to exceed ten percent of the penalty hereof between the amount specified in
the bid and such larger amount for which the Oblige may in good faith contract with the next lowest bidder to
perform the work covered by the bid; or in the event the Oblige does not award the contract to the next lowest bidder
and resubmits the project for bidding, the Principal will pay the Oblige the difference not to exceed ten percent of the
penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing
new contract documents, required advertising and printing and mailing notices to prospective bidders, whichever is
less, then this obligation shall be null and void, otherwise to remain in full force and effect. If the Oblige accepts the
bid of the Principal and the Principal, within ten days after the awarding of the contract, enters into a proper contract
in accordance with the bid, plans, details, specifications, and bills of material, which said contract is made a part of
this bond the same as though set forth herein; and

IF THE SAID Principal shall well and faithfully perform each and every condition of such contract; and indemnify the
Oblige against all damage suffered by failure to perform such contract according to the provisions thereof and in
accordance with the plans, details, specifications, and bills of material therefore; and shall pay all lawful claims o
subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward,
performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit o
any materialman or laborer having a just claim, as well as for the Oblige herein; then this obligation shall be void;
otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of
the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein
stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of said contract or in or to the plans and specifications therefore shall in any way affect the obligations of said Surety on its bond, and it does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

SIGNED AND SEALED This 01 day of August, 2013

PRINCIPAL:

Specialized Construction, Inc.

By: X [Signature]

TITLE: PRESIDENT

SURETY: State Automobile Mutual Insurance Company

BY: Carol A. Parsons

Carol A. Parsons, Attorney-in-Fact

SURETY COMPANY ADDRESS:

518 East Broad Street

Columbus, OH 43215

Telephone: 1-800-444-9950

NOTE: Failure by any party to sign Bid Guaranty and Contract Bond shall result in rejection of bid.

Financial Statement – December 31, 2012
Assets

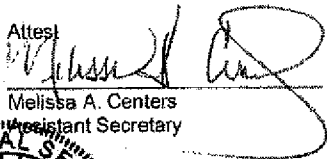
Cash on hand and in bank	\$ 40,858,114
Short term investments	35,678,166
Premiums in course of collection	581,334,700
United States government securities	86,551,877
Other public bonds	338,151,659
Common stocks	637,925,172
Interest accrued and other assets	373,260,222
Total assets	\$ 2,093,759,910


Liabilities, Surplus, and other Funds

Losses and loss adjustment expenses	\$ 486,155,650
Unearned premiums	249,858,057
Reserve for taxes	7,575,265
Other reserves and liabilities	601,470,365
Total liabilities	\$ 1,345,059,337
Surplus as regards policyholders	748,700,573
TOTAL	\$ 2,093,759,910


The foregoing is a correct statement of the assets and liabilities of State Automobile Mutual Insurance Company as of December 31, 2012 according to the best of our information, knowledge and belief.

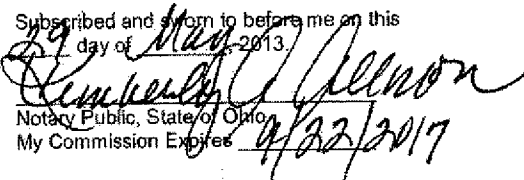
Attest:


 Melissa A. Centers
 Assistant Secretary


 Matthew R. Pollak
 Chief Accounting Officer, Treasurer

 Subscribed and sworn to before me on this
 day of May, 2013.


 Kimberly A. Allmon
 Notary Public, State of Ohio
 My Commission Expires 09-22-2017


 Notary Public, State of Ohio
 My Commission Expires 9/22/2017



CERTIFICATE OF LIABILITY INSURANCE

OP ID: PACA

DATE (MM/DD/YYYY)

08/12/13

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

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

PRODUCER United Agencies, Inc. 1422 Euclid Avenue, Suite 900 Cleveland, OH 44115 Terry Dragan	216-696-8044	CONTACT NAME: Carol Parsons	FAX (A/C, No): 216-241-1339
	216-696-3423	PHONE (A/C, No, Ext): 216-241-1199	E-MAIL ADDRESS: cparsons@ualinc.com
		PRODUCER CUSTOMER ID #: SPECI-1	
		INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED Specialized Construction, Inc. 711 Harvard Avenue Cuyahoga Heights, OH 44105	INSURER A: State Auto Insurance Companies		
	INSURER B:		
	INSURER C:		
	INSURER D:		
	INSURER E:		
	INSURER F:		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WYD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY	X	PBP 2001421	06/01/13	06/01/14	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 5,000
	<input checked="" type="checkbox"/> Broad Form Contr.					PERSONAL & ADV INJURY \$ 1,000,000
	<input checked="" type="checkbox"/> Incl XCU					GENERAL AGGREGATE \$ 3,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					PRODUCTS - COM/PROP AGG \$ 3,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					\$
A	AUTOMOBILE LIABILITY	X	BAP 2001422	06/01/13	06/01/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input type="checkbox"/> ANY AUTO					BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS					BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> SCHEDULED AUTOS					PROPERTY DAMAGE (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS					\$
	<input checked="" type="checkbox"/> NON-OWNED AUTOS					\$
A	UMBRELLA LIAB	<input checked="" type="checkbox"/> OCCUR	PBP 2001421	06/01/13	06/01/14	EACH OCCURRENCE \$ 5,000,000
	EXCESS LIAB					AGGREGATE \$ 5,000,000
	<input type="checkbox"/> CLAIMS-MADE					\$
	DEDUCTIBLE					\$
	RETENTION \$					\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	Y/N	PBP 2001421	06/01/13	06/01/14	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input checked="" type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)					E.L. EACH ACCIDENT \$ 500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - EA EMPLOYEE \$ 500,000
						E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Cuyahoga County, The Cuyahoga County Dept. of Public Works and their officers, agents and employees are named as Additional Insureds on the General Liability and Automobile Liability coverages when required by written contract, as respects to work performed for them by the Named Insured, as their interest may appear.

CERTIFICATE HOLDER

CANCELLATION

Cuyahoga County
1219 Ontario Road
Cleveland, OH 44113

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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NOTEPAD

INSURED'S NAME Specialized Construction, Inc.

SPECI-1
OP ID: PACA

PAGE 2
DATE 08/12/13

RE: 2013 County Wide Maintenance Program-Crack Seal
(RQ 27992)



**Bureau of Workers'
Compensation**

30 W. Spring St.
Columbus, OH 43215

Certificate of Premium Payment

This certifies the employer listed below has paid into the Ohio State Insurance Fund as required by law. Therefore, the employer is entitled to the rights and benefits of the fund for the period specified. For more information, call 1-800-OHIOBWC.

This certificate must be conspicuously posted.

Policy No. and Employer

Period Specified Below

1254587

01/01/2013 Thru 08/31/2013

SPECIALIZED CONSTRUCTION INC
711 HARVARD AVE
NEWBURGH HTS, OH 44105-3034

ohiojobwc.com


Administrator/CEO

You can reproduce this certificate as needed.

Ohio Bureau of Workers' Compensation

Required Posting

Effective Oct. 13, 2004, Section 4123.54 of the Ohio Revised Code requires notice of rebuttable presumption. Rebuttable presumption means an employee may dispute or prove untrue the presumption (or belief) that alcohol or a controlled substance not prescribed by the employee's physician is the proximate cause (main reason) of the work-related injury.

The burden of proof is on the employee to prove the presence of alcohol or a controlled substance was not the proximate cause of the work-related injury. An employee who tests positive or refuses to submit to chemical testing may be disqualified for compensation and benefits under the Workers' Compensation Act.



**Bureau of Workers'
Compensation**

You must post this language with the certificate of premium payment.

DP-29 BWC-1629 7/7/08

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
Specialized Construction Incorporated

Business name/disregarded entity name, if different from above
N.A.

Check appropriate box for federal tax classification (required):
☐ Individual/sole proprietor
☒ C Corporation
☐ S Corporation
☐ Partnership
☐ Trust/estate
☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) _____
☐ Other (see instructions) ▶

Exempt payee ☐

Address (number, street, and apt. or suite no.)
711 Harvard Avenue

City, state, and ZIP code
Cuyahoga Heights, Ohio 44105

Requester's name and address (optional)

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

			-				
--	--	--	---	--	--	--	--

Employer identification number

3	4	-	1	8	5	8	1	6	3
---	---	---	---	---	---	---	---	---	---

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign
Here

Signature of
U.S. person ▶

Date ▶

3/14/13

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

Certified Search for Unresolved Findings for Recovery



Dave Yost
Ohio Auditor of State

Office of Auditor of State
88 East Broad Street
Post Office Box 1140
Columbus, OH 43216-
1140
(614) 466-4514
(800) 282-0370

Auditor of State - Unresolved Findings for Recovery Certified Search

I have searched The Auditor of State's unresolved findings for recovery database using the following criteria:

Contractor's Information:

Organization: Specialized Construction Incorporated
Date: 08/13/2013

This search produced the following list of possible matches:

4 Possible matches were found

Name/Organization	Address
Speakman	
Speakman, Ron	277 S. Bennett Ave. Jackson, OH 45640
Speakman, Ronald	277 S. Bennett Ave. Jackson, OH 45640
Speers, David	3518 Julie Drive Franklin, OH 45005

The above list represents possible matches for the search criteria you entered. Please note that pursuant to ORC 9.24, only the person (which includes an organization) actually named in the finding for recovery is prohibited from being awarded a contract.

If the person you are searching for appears on this list, it means that the person has one or more findings for recovery and is prohibited from being awarded a contract described in ORC 9.24, unless one of the exceptions in that section apply.

If the person you are searching for does not appear on this list, an initialed copy of this page can serve as documentation of your compliance with ORC 9.24(E).

Please note that pursuant to ORC 9.24, it is the responsibility of the public office to verify that a person to whom it plans to award a contract does not appear in the Auditor of State's database. The Auditor of State's office is not responsible for inaccurate search results caused by user error or other circumstances beyond the Auditor of State's control.



DATE:	DOCUMENT ID	DESCRIPTION	FILING	EXPED	PENALTY	CERT	COPY
06/08/2011	201115801328	TRADE NAME/ORIGINAL FILING (RNO)	50.00	.00		.00	.00

Receipt

This is not a bill. Please do not remit payment.

SPECIALIZED CONSTRUCTION INCORPORATED
711 HARVARD AVENUE
CUYAHOGA HEIGHTS, OH 44105

STATE OF OHIO CERTIFICATE

Ohio Secretary of State, Jon Husted**2026088**

It is hereby certified that the Secretary of State of Ohio has custody of the business records for

SPECON

and, that said business records show the filing and recording of:

Document(s)

TRADE NAME/ORIGINAL FILINGDate of First Use: 05/10/2011
Expiration Date: 06/06/2016

Document No(s):

201115801328SPECIALIZED CONSTRUCTION
INCORPORATED
711 HARVARD AVENUE
CUYAHOGA HTS, OH 44105United States of America
State of Ohio
Office of the Secretary of StateWitness my hand and the seal of
the Secretary of State at Columbus,
Ohio this 6th day of June, A.D.
2011.

Ohio Secretary of State



OhioBWC - Employer - Service: (State construction contractor look-up) - Results

OhioBWC - Employer - Service: (State construction contractor look-up) - Results

Policy number: 1254587-0

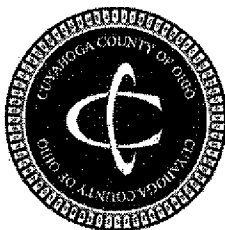
Company name: SPECIALIZED CONSTRUCTION INC

Construction contractor status: APPROVED

Construction contractor status date: 6/19/2003 12:00:00 AM

[search again](#)

Note: BWC has designed this database for those responsible for ensuring that a construction contractor or subcontractor has a drug-free workplace program that complies with HB 80 for any State of Ohio public improvement project. A contractor, subcontractor or lower-tier subcontractor in an APPROVED status has agreed to implement or has implemented a BWC-approved drug-free workplace program which makes the company compliant with the mandate of the Ohio legislature through HB 80. While state contracting authorities are expected to review this database for the most current information, you may print this as verification of your current status.



CUYAHOGA COUNTY
DEPARTMENT of PUBLIC WORKS

August 7, 2013

John Alberty, President
Specialize Construction Incorporated
711 Harvard Road
Cleveland, Ohio 44105

RE: 2013 – 2014 Countywide Maintenance Program – Crack Seal (RQ27992)

Dear Mr. Alberty:

We are pleased to inform you that an award recommendation is being made to your company for the above mentioned project for \$524,500.00.

Please complete the attached forms and return one (1) original of each form within ten (10) days to the Department of Public Works, 2429 Superior Viaduct, Cleveland, Ohio, 44113, Attention: Julie Conway. The County of Cuyahoga, Ohio will then execute the contract. If possible a sooner response would be appreciated.

A scanned copy of the documents can be emailed to jaconway@cuyahogacounty.us for quicker execution of the contract.

Sincerely

Juliann Conway, Contract Coordinator
Department of Public Works

Attachments: Required Contract Documents

cc: B. Teeuwen, T. Sotak, B. Driscoll, S. Kosilesky, M. Chambers, C. Jenkins, L. Straka, G. Lewin

Department of Public Works Bid Results

Tuesday, August 06, 2013
2:15:44 PM

Letting Date 8/1/2013 Cuyahoga County Engineer's Estimate: \$672,500.00 RQ No.: 27992 Rep. No.: 01-14

2013-2014 Countywide Maintenance Program Crack Sealing

Low Bidder	Specialized Construction Inc.	\$524,500.00	-22.0074%
	Scodeller Construction Inc.	\$614,000.00	-8.699%
	Crossroads Asphalt Recycling, Inc.	\$732,500.00	8.922%

Notes:

8/6/2013

SECTION 1

LEGAL NOTICE TO BIDDERS

Sealed Proposals will be received for furnishing all labor, materials and equipment necessary for the following project:

Project Name: 2013 – 2014 Countywide Preventative Maintenance – Crack Seal

Total Estimated Cost: \$672,500.00

Bid Due Date: August 1, 2013 **Requisition No.** RQ-27992

Proposals must be in accordance with the plans and specifications prepared by the Cuyahoga County Department of Public Works and on file at the Office of Procurement and Diversity, County Administration Building, 1219 Ontario Street, Room 110, Cleveland, Ohio 44113.

Proposals must be deposited in the bid box at the Office of Procurement and Diversity (same address). The Office of Procurement and Diversity shall accept Proposals until two o' clock in the afternoon (2:00 P.M.) local time on the bid due date, given above ("Bid Due Date"). Immediately following 2:00 P.M., the Proposals received will be publicly opened and read aloud at the Office of Procurement and Diversity. The Office of Procurement and Diversity shall use the clock located in its office to determine the official time of submission.

A pre-bid conference will not be held.

The Bid Package, which includes the Proposal Package, the Cuyahoga County Engineer Specification Booklet, the Plans and the Standard Construction Drawings on CD, may be obtained at the Cuyahoga County Office of Procurement and Diversity (same address), for a non-refundable fee of \$25.00, paid in advance. Payment shall be made by a certified check or money order drawn on some solvent account payable to the "Treasurer of Cuyahoga County, Ohio". Personal checks or cash will not be accepted.

Bidders are encouraged to register with the County's "BuySpeed Vendor Registration Program" on the Internet at www.opd.cuyahogacounty.us to receive notices of future bid opportunities [Phone: (216) 443-7200]. Prospective bidders must be registered with the Cuyahoga County Inspector General. Registration information can be accessed on the Internet at www.inspectorgeneral.cuyahogacounty.us.

Prospective Bidders shall comply with the applicable contract compliance procedures for the County's *Small Business Enterprise Program*, as stipulated by Cuyahoga County. At the time of the Bid opening, all Subcontractors submitted as SBE's must be pre-qualified by the Ohio Department of Transportation (ODOT) to perform the specified work type, unless otherwise indicated per the General Provisions, Section 108, 108.01 "Subletting of Contract".

Each Bidder shall include a bid guaranty with every Proposal, per Ohio Revised Code (ORC) Section 153.54. The bid guaranty must be in the form of either a bid bond for the full amount (100%) of the Bid, or, in the form of a certified check, cashier's check, or irrevocable letter of credit pursuant to ORC Chapter 1305 in the amount of ten percent (10%) of the total amount of the Bid. If a bid bond is submitted as the bid guaranty, it must be that of an approved Surety, authorized to transact business in the State of Ohio, and it shall automatically increase to a 100% Performance and Payment Bond. If a certified check, cashier's check, or irrevocable letter of credit is submitted as the bid guaranty, it must be drawn on a solvent bank and made payable without condition to the Treasurer of Cuyahoga County. The County shall hold the bid bond or certified check, cashier's check, or irrevocable letter of credit as a guaranty that if the Proposal is accepted, the Bidder will enter into a Contract for same.

By submitting a Proposal, the Bidder agrees on behalf of the submitting business entity, its officers, employees, Subcontractors, subgrantees, agents or assigns, to conduct this transaction by electronic means, meaning:

- i. that all documents requiring County signatures may be executed by electronic means;
- ii. that the electronic signatures affixed by the County to said documents shall have the same legal effect as if that signature was manually affixed to a paper version of the document; and
- iii. that the Bidder's Proposal is submitted in the manner specified in the "Instructions to Bidders" Sections 2.11(b) and (c).

The Bidder also agrees on behalf of the aforementioned entities and persons, to be bound by the provisions of ORC Chapters 304 and 1306, as they pertain to electronic transactions, and to comply with the electronic signature policy of the County.

Cuyahoga County reserves the right to order the rejection of any or all Proposals.

**EDWARD FITZGERALD
CUYAHOGA COUNTY EXECUTIVE**

**Published in: Cleveland Plain Dealer
Dates: July 15, 2013**

**LENORA M. LOCKETT, DIRECTOR,
OFFICE OF PROCUREMENT AND
DIVERSITY**

**Also posted on Cuyahoga County
Website: www.opd.cuyahogacounty.us
(click on show events tab)**

SECTION 2

INSTRUCTIONS TO BIDDERS

2.01 Definitions

The "Bid Package" includes the Proposal Package, the Cuyahoga County Engineer Specification Booklet, the Plans and the Standard Construction Drawings on CD.

The "Proposal Package" includes the "Legal Notice to Bidders", "Instructions to Bidders", "Required Bid Documents", "Sample Contract Forms", "Wage Determination Schedule", and the "Cuyahoga County Bidders' Manual for the Small Business Enterprise Goal".

The "Cuyahoga County Engineer Specification Booklet" includes the General Provisions, Special Provisions, Supplemental Specifications, and Proposal Notes.

All definitions set forth in the "General Provisions" of the Cuyahoga County Engineer Specification Booklet apply to the entire Bid Package.

2.02 Bidder Qualifications

All Bidders shall complete the "Prime Contractor's Work Types Worksheet" and the "SBE Subcontractor's Work Type Worksheet", both found in Section 3 of this Proposal Package. The Cuyahoga County Department of Public Works will view the "Prequalified Contractors List", found on the webpage for the ODOT Office of Contracts, in order to verify ODOT work types claimed by the Bidder. Unless the "Special Provisions" found in the Cuyahoga County Engineer Specification Booklet indicate otherwise, the "Work Type Total Dollar Amount" on the "Prime Contractor's Work Types Worksheet" must be equal to or greater than 50% of the "Total Amount Bid" or the Bid will be rejected. For information regarding the subletting of this Contract see Section 108.01 of the "General Provisions."

After the proposals are opened, the Cuyahoga County Department of Public Works reserves the right to request a confidential financial statement from any Bidder. Certification by a public accountant may be required. If requested, the financial statement must provide clear evidence that the Bidder has the necessary facilities, equipment and monetary resources to deliver materials and complete the Work in a satisfactory manner by the Completion Date.

2.03 Project Description

The intent of this project is to perform pavement crack sealing on a requirements basis throughout Cuyahoga County for the duration of this contract. This contract expires on October 31, 2014. Municipalities will request work for one or more streets at various times throughout the contract duration. Contractor will be asked to log the existing pavement markings and provide an estimate based on the agreed upon contract price. Upon agreement the contractor will have four (4) weeks from notice to proceed for each individual road to complete the work on that road.

2.04 Completion Date: October 31, 2014

2.05 Construction and Material Specifications

The Ohio Department of Transportation (ODOT) 2010 *Construction and Material Specifications* shall govern this project except when modified by these Plans, Special Provisions, Supplemental Specifications or Proposal Notes. Copies of the most recent *Construction and Material Specifications* may be ordered directly from ODOT. The "General Provisions" in Section 100 of the *ODOT Construction and Material Specifications* do not apply to this project and are superseded by the "General Provisions" in Section 100 of the Cuyahoga County Engineer Specification Booklet.

Certain words found in the ODOT *Construction and Material Specifications*, "Supplemental Specifications" or "Proposal Notes" are redefined for the purpose of this contract:

- i. "The State" means the County;
- ii. "Department" means the County Department of Public Works;
- iii. "Director" means the Cuyahoga County Director of Public Works, his/her deputies, or any engineer designated as the Director's representative;
- iv. "District Construction Engineer" or "Engineer" means the duly authorized agent or representative of the Director, acting within his/her authority for the purposes of construction engineering and administration of the Contract;
- v. "Laboratory" means any laboratory designated by the County.

2.06 Bid Guaranty

Each Bidder shall include a bid guaranty with every Proposal, per Ohio Revised Code (ORC) Section 153.54. This bid guaranty must be in the form of either a bid bond for the full amount (100%) of the Bid, or a certified check, cashier's check, or irrevocable letter of credit pursuant to ORC Chapter 1305, in the amount of ten percent (10%) of the total amount of the Bid. If a bid bond is submitted as the bid guaranty, it must be that of an approved Surety, authorized to transact business in the State of Ohio, and it shall automatically increase to a 100% Performance and Payment Bond. If a certified check, cashier's check, or irrevocable letter of credit is submitted as the bid guaranty, it must be drawn on a solvent bank and made payable without condition to the Treasurer of Cuyahoga County. The County shall hold the bid bond or certified check, cashier's check, or irrevocable letter of credit as a guaranty that if the Proposal is accepted, the Bidder will enter into a Contract for same.

All bid bonds must be properly executed and signed by both the Surety and the Bidder with the names of the parties signing typed immediately below signatures, (affix corporate seal(s)). The Bidder warrants that the agent of the Surety who signed the bid bond had, prior to signing, furnished credentials to the Bidder, showing the agent's power of attorney.

2.07 Equal Economic Employment Opportunity and Small Business Enterprise Goal

Bidders are prohibited from engaging in discrimination and intimidation due to race, color, religion, sex, national origin, handicap or ancestry, as set forth in ORC Sections 4112.01 through 4112.99.

Bidders shall comply with the provisions of the Cuyahoga County Bidders' Manual which addresses Small Business Enterprise Goals for Construction, Goods and General and Professional Services Contracts. A copy of the Bidders' Manual is included in the Proposal Package. The Bidders' Manual stipulates the goal for the participation of Small Business Enterprises (SBE) for this Project. The required SBE Forms, as addressed in the Bidders' Manual, shall be completed and included with the Proposal.

2.08 Subcontractors

Bidders shall refer to Section 108.01 of the "General Provisions" in the Cuyahoga County Engineer Specification Booklet for all regulations regarding subletting of the Contract. The provisions of this section apply to all subcontracts, **including subcontracts with Small Business Enterprises (SBE)** as defined in the *Cuyahoga County Bidders' Manual*.

No Subcontractor disclosure is required as part of the Proposal, except for SBE Subcontractor disclosure, as required in the *Cuyahoga County Bidders' Manual* and the "SBE Subcontractor's Work Types Worksheet" found in Section 3 of this Proposal Package.

2.09 Interpretation of the Bid Package

If upon examination of the Bid Package and the site conditions, a Bidder discovers any inconsistency, changed conditions, or error, or if a Bidder requires clarification or interpretation of the Bid Package, then the Bidder shall notify the Cuyahoga County Department of Public Works by fax transmittal/e-mail. Fax transmittals/e-mails must contain the following information:

- The Project Name, County Requisition Number and Bid Due Date;
- The Bidder's name, phone number, fax number and/or e-mail address and contact person's name;
- The inconsistency, changed condition or error discovered and/or the interpretation or clarification desired ;
- References to plan sheet numbers or Bid Package page numbers.

The fax number at the Cuyahoga County Department of Public Works is 216-698-2353 and the contact person is Juliann Conway. The e-mail address is jaconway@cuyahogacounty.us. No telephone calls will be accepted.

The Cuyahoga County Department of Public Works will consider the nature of the information received and evaluate the potential impacts to the competitive bidding process. If the Cuyahoga County Department of Public Works determines that their response will impact the competitive bidding process, then it will prepare an Addendum to the process for approval and issue by the County. If the Cuyahoga County Department of Public Works determines their response does not impact the competitive bidding process, then it will not issue an addendum, and only the Bidder submitting the fax transmittal or e-mail will receive a faxed/e-mailed response from the Cuyahoga County Department of Public Works.

If a response to a Bidder's fax transmittal/e-mail is not possible within twenty-four (24) hours, then the Cuyahoga County Department of Public Works will notify the Bidder of the anticipated response date by fax/e-mail. Clarifications, interpretations or revisions of the Bid Package made in any other manner shall not be binding, and Bidders shall not rely upon such clarifications or interpretations.

2.10 Addenda and Clarifications

Addenda and Clarifications will be faxed to each Bidder known by the Office of Procurement and Diversity to have purchased a complete Bid Package. If an addendum or clarification includes materials that cannot be faxed, then the faxed portion of the addendum or clarification will stipulate how such materials will be delivered to the Bidder. Paper copies of Addenda and Clarifications will be made available for inspection at the Office of Procurement and Diversity.

Addenda issued within seventy-two (72) hours of the published time for the opening of Proposals, excluding Saturdays, Sundays and legal holidays, will cause the Bid Due Date to be extended by seven (7) days. Clarifications have no impact to the Bid Due Date regardless of when they are issued.

Prior to submitting his/her Proposal, each Bidder shall ascertain that all issued Addenda and Clarifications have been received and shall acknowledge this receipt in the appropriate spaces provided on the "Cuyahoga County Department of Public Works Construction Proposal Form", located in Section 3.

2.11 Bidding Procedure

(a) Bid Package

Bidders shall obtain a complete Bid Package, for the fee stated in the "Legal Notice to Bidders", from the Cuyahoga County Office of Procurement and Diversity, and only from that office. Obtaining documents from any other source (e.g. from the Internet or from various construction news services) will not make the Bidder a plan holder of record. Bids received from vendors other than plan holders of record for a particular job will be deemed non-responsive. Bidders shall use a complete Bid Package

in preparing Proposals. Cuyahoga County assumes no responsibility for Bidder's errors or misinterpretations resulting from the use of an incomplete Bid Package.

(b) Preparation of Proposals

Bidders shall submit one original and one photocopy of the documents required in paragraph (c), below. Any additions to or deletions from the bid forms, special notations, unauthorized alternates or conditions not contemplated in the specifications will render the Proposal informal and unacceptable.

To complete the "Itemized Unit Price Bid Sheets" the Bidder shall enter a unit price bid in the "Unit Price Bid" column for *each item* for which there is a quantity given in the "Estimated Quantity" column, except for "Item 832 – Erosion Control", where the "Unit Price Bid" and the "Total Amount Bid" have been provided. Failure to do so will render the Proposal informal, at the discretion of Cuyahoga County.

- i. To determine the total amount bid for *each item*, the Bidder shall multiply the unit price bid for *each item* against the estimated quantity given. The figure arrived at through this multiplication shall then be placed in the "Total Amount Bid" column for that item.
- ii. Where the estimated quantity for an item is designated as "Lump", the Bidder shall enter his/her lump sum bid for that item in the "Unit Price Bid" column as well as in the "Total Amount Bid" column.

To determine the "Section Total", the Bidder shall add all figures in the "Total Amount Bid" column for each item in that section and the sum shall be entered on the corresponding "Section Total" line. For example, the "Section Total Roadway" is the sum of the "Total Amount Bid" column for all Roadway items. The sum of the Section Totals shall be entered as the "Grand Total Bid".

When the Proposal includes "Alternate Bid Item(s)", the Bidder shall enter a "Unit Price Bid" and a "Total Amount Bid" for each "Alternate Bid Item" listed. Failure to do so will render the Proposal informal, at the discretion of Cuyahoga County.

The Bidder's "Grand Total Bid", excluding the "Alternate Bid Item(s)", shall in no case exceed the Cuyahoga County Department of Public Works "Total Estimated Cost" by more than ten (10) percent. Any Bid that exceeds the "Total Estimated Cost" by more than ten (10) percent will be deemed informal and unacceptable.

The Bidder's Proposal must be signed with ink, by any one of the following:

- i. the individual;
- ii. one or more members of the partnership;
- iii. one or more members or officers of each firm representing a joint venture;
- iv. one or more officers of a corporation; or
- v. an agent of the Bidder legally qualified and acceptable to Cuyahoga County.

If the Proposal is made by an individual, his/her name and business address must be shown; by a partnership, the name and business address of each partnership member must be shown; as a joint venture, the name and business address of each member or officer of the firms represented by the joint venture must be shown; by a corporation, the name of the state under the laws of which the corporation is chartered and the name and title of the officer or officers having authority under the bylaws to sign contracts, the name of the corporation and the business address of its corporate officials must be

shown. Anyone signing a Proposal as an agent shall file legal evidence of his/her authority to do so with the Proposal.

(c) Delivery of Proposals

The Proposal must contain the following documents:

1. Cuyahoga County Department of Public Works Construction Proposal Form;
2. Non-Collusion Affidavit;
3. Bid Guaranty (Bidder to provide);
4. Prime Contractor's Work Types Worksheet;
5. SBE Subcontractor's Work Types Worksheet;
6. Required Small Business Enterprise Forms (Section 2.07);
7. Drug Free Safety Program (DFSP) Participation (see Proposal Notes);
8. Cuyahoga County Vendor Compliance Form; and
9. Cuyahoga County Based Business Preference Program Match Option Form.

Proposals containing the required documents must be delivered in a sealed envelope and deposited in the bid box at the Office of Procurement and Diversity, located at the address indicated below, before two o'clock in the afternoon (2:00 P.M.) local time on the Bid Due Date.

Cuyahoga County Office of Procurement and Diversity
County Administrative Building
1219 Ontario Street, Room 110
Cleveland, Ohio 44113

The outside of the sealed envelope must be clearly marked with Bidder's name and address, the Project name, requisition number and the Bid Due Date, all as stated herein.

Immediately following 2:00 P.M., the Proposals will be publicly opened and read aloud at the Office of Procurement and Diversity, in accordance with the "Legal Notice to Bidders" duly published. Proposals received after 2:00 P.M. local time on the Bid Due Date will be returned to the Bidder unopened.

2.12 Award and Execution of Contract

Bidders shall refer to Section 103 of the "General Provisions" in the Cuyahoga County Engineer Specification Booklet for all information concerning award and execution of the Contract. Bidders are hereby alerted that if the County determines that a Proposal is unbalanced, pursuant to Sections 102.06 (B)(e), 102.08 and 102.14(M) of the General Provisions in the Cuyahoga County Engineer Specification Booklet, the County may thereafter consider the Proposal irregular and may reject it.

In addition to the above, the applicable elements/requirements of the "Bid Award Method", per Section 4.7 (Standards for Awarding Contracts) and Section 4.8 (Required Certifications by Successful Bidders) of the "Cuyahoga County Contracting and Purchasing Procedures Ordinance No. O2011-0014, as amended" will also be in effect during the Award process (see Section 2, Attachment A).

2.13 Miscellaneous

(a) Insurance

Prior to the execution of the Contract the successful Bidder shall furnish to Cuyahoga County the proof of insurance documents, required by Section 107.12 of the General Provisions and by the Section 200 Special Provisions, found in the Cuyahoga County Engineer Specification Booklet. Per Section 107.12 of the General Provisions, ensure that the certificate of Liability Insurance names Cuyahoga County, Ohio, and employees as additional insureds with all rights to due notices as specified in Section 107.12 of the General Provisions.

(b) **Workers' Compensation Certificate**

Prior to the execution of the Contract the successful Bidder shall furnish to Cuyahoga County the official certificate evidencing compliance with the Workers' Compensation laws of the State of Ohio and shall comply with the requirements of Section 107.12.A of the General Provisions, found in the Cuyahoga County Engineer Specification Booklet.

(c) **Wage Rates**

The Contractor shall pay to all laborers, workers, and mechanics according to the prevailing wage scale for the County area, as set forth in Section 5 of the Proposal Package. The Contractor shall have sole responsibility for complying with all applicable provisions of ORC Section 4115. Should the prevailing wage rates be changed during the life of the Contract, the Contractor shall pay any such increases in the wage rates without obligation on the part of the County to pay for any increase in the Contract price. The County hereby appoints **Celia Jenkins** to serve as the Prevailing Wage Coordinator during the life of this Contract, per ORC Section 4115.

(d) **Mechanic's Lien Law**

All Contractors, Subcontractors, vendors, managers, materialmen and laborers who have or will have a direct or indirect interest in this Contract are advised that after a contract has been awarded and executed, the administrator of the contract will prepare the Notices of Commencement and submit same for filing with the County, per ORC 1311.252.

2.14 Pre-Bid Conference

A pre-bid conference will not be held.

2.15 Acceptance of Electronic Signatures

By submitting a Proposal, the Bidder agrees on behalf of the submitting business entity, its officers, employees, Subcontractors, subgrantees, agents or assigns, to conduct this transaction by electronic means, meaning:

- i. that all documents requiring County signatures may be executed by electronic means;
- ii. that the electronic signatures affixed by the County to said documents shall have the same legal effect as if that signature was manually affixed to a paper version of the document; and
- iii. that the Bidder's Proposal is submitted in the manner specified in Section 2.11(b), (c).

The Bidder also agrees on behalf of the aforementioned entities and persons, to be bound by the provisions of ORC Chapters 304 and 1306, as they pertain to electronic transactions, and to comply with the electronic signature policy of the County.

2.16 Compliance with County Ordinances

All County contracts are subject to all applicable County ordinances, including, but not limited to, the Cuyahoga County Ethics Ordinance, Cuyahoga County Inspector General Ordinance, and Cuyahoga County Contracting and Purchasing **Procedures** Ordinance; all as amended, and the successful Bidder shall comply with all such ordinances as an integral part of all County contracts. Copies of all County ordinances are available on the County Council's web site at <http://council.cuyahogacounty.us/>.

ATTACHMENT A
BID AWARD METHOD

**PER SECTION 4.7 (STANDARDS FOR AWARDED CONTRACTS)
AND SECTION 4.8 (REQUIRED CERTIFICATIONS BY
SUCCESSFUL BIDDERS) OF THE “CUYAHOGA COUNTY
CONTRACTING AND PURCHASING PROCEDURES ORDINANCE
No. 02011-0014”, AS AMENDED JULY 24, 2012 BY
“CUYAHOGA COUNTY ORDINANCE No. 02012-0015”.**

BID AWARD METHOD

(Per Ordinance No. O2011-0014, as amended, Section 4.7):

Standards for Awarding Contracts

Contracts and purchases which require competitive bidding, and are awarded in accordance with this Ordinance shall be awarded to the lowest and best bidder meeting the specifications that are most advantageous to Cuyahoga County. The County reserves the right to consider all elements entering into the question of determining the lowest and best bid, including the following:

- a) whether the bidder has the appropriate experience, reputation, and workforce to perform the required work;
- b) the bidder's past performance on legal and ethical matters;
- c) whether the bidder exhibits a history of workforce stability and workplace safety, and provides workers a fair wage and fair benefits, as evidenced by payroll and employee records, for the required work, based on market conditions;
- d) whether the bidder has adhered to all conditions and requirements of the bid and specifications;
- e) the quality of the product or service provided by the bidder on previous projects;
- f) with respect to a bidder whose bid is substantially below that of the next lowest bidder, supplemental details regarding the bid and/or historical information regarding performance and costs on similar contracts to demonstrate the bidder's ability to complete the contract at the price specified;
- g) whether the bidder is able to comply with the criteria outlined in Section 4.8 of this Ordinance;
- h) whether the bidder's past performance has demonstrated a commitment to diversity in employment and subcontracting;
- i) maintenance costs and warranty provisions provided for in the bid;
- j) the delivery or completion date provided for in the bid;
- k) whether, with respect to work done in construction trades, the bidder will use only construction trades personnel who were trained in a state or federally approved apprenticeship program or career technical program, or who are currently enrolled in a state or federally approved apprenticeship program or career technical program, or who have at least three years of experience in a particular trade; except that for the purposes of full inclusion and creation of entry-level opportunities, up to ten percent (10%) of the construction trades personnel may be participants in pre-apprenticeship programs or otherwise have less training and experience;
- l) whether the bidder, unless otherwise agreed to in a collective bargaining agreement, contributes to an employee pension or retirement plan for those employees working on the contract, such benefits being part of the employees' regular compensation and not merely on the contract, and provides evidence thereof upon request;

- m) whether the bidder, unless otherwise agreed to in a collective bargaining agreement, makes available a minimum health care plan for those employees working on the contract, such benefits being part of the employees' regular compensation and not merely on the contract and provides a copy of the plan on request;
- n) **whether the bidder has had the professional license of any of its principles or employees revoked for malfeasance or misfeasance;**
- o) whether the bidder meets any other requirements determined by the County to be specifically relevant to the proposed contract.

(Per Ordinance No. O2011-0014, as amended, Section **4.8**):

Required Certifications by Successful Bidders

At the time of execution of the contract, the successful bidder shall certify that it:

- a) shall be in compliance with Ohio's Drug-Free Workplace requirements, including, but not limited to, maintaining a substance abuse policy that its personnel are subject to on the contract (the successful bidder shall provide this policy upon request);
- b) does not have an Experience Modification Rating greater than 1.5 with respect to the Bureau of Workers Compensation risk assessment rating;
- c) is in compliance and will remain in compliance with Federal and Ohio Equal Opportunity Employment Laws;
- d) shall pay the prevailing wage rate and comply with other provisions set forth in Sections 4115.03 through 4115.16 of the Ohio Revised Code and Sections 4101:9-4-01 through 4101:9-4-28 of the Ohio Administrative Code, including but not limited to the filing of certified payroll reports;
- e) has not debarred from public contracts for prevailing wage violations or found determined by the state to have underpaid the required prevailing wage, whether intentionally or unintentionally, even if settled subsequent to the finding, more than three (3) times in the last ten (10) years, provided that, when aggregating for any single project, no finding of an underpaid amount of less than \$1,000.00 shall be considered, and no single finding based upon a journeyman-to-apprenticeship ratio shall be considered a violation of this provision unless as part of multiple, similar findings;
- f) has not penalized or debarred from any federal, state, or local public contract or falsified certified payroll records, or has otherwise been found, after appeals, to have violated the Fair Labor Standards Act in the past seven (7) years or during the bidder's entire time of doing business, if less than seven (7) years;
- g) has not violated any unemployment or workers compensation law during the past five (5) years, or during the bidder's entire time of doing business, if less than five (5) years;

- h) at the time of contract award, does not have final, unsatisfied judgments against it which in total amount to 50% or more of the contract amount;
- i) will utilize, for work performed under the contract supervisory personnel that have three (3) or more years of experience in the specific trade and who maintain the appropriate state license(s), if any;
- j) shall be properly licensed to perform all work as follows
 - 1. if performing a trades contract, shall be licensed pursuant to Ohio Revised Code Section 4740 as a heating, ventilating, and air conditioning contractor, refrigeration contractor, electrical contractor, plumbing contractor, or hydronics contractor;
 - 2. if performing work regulated under Section 3737.65 of the Ohio Revised Code, be certified by the State Fire Marshall;
 - 3. if performing work under Title 47 of the Ohio Revised Code, be licensed for that trade, occupation, or profession as provided in the Ohio Revised Code;
- k) shall, if performing a trade contract pursuant to Ohio Revised Code Section 4740, not subcontract more than twenty-five percent (25%) of the labor, excluding materials, for its awarded contract, unless to subcontractors also licensed pursuant to Ohio Revised Code Section 4740 or certified by the State Fire Marshall pursuant to Ohio Revised Code Section 3737.65;
- l) shall provide access as needed and allow the Agency of the Inspector General to perform the functions provided for in Section 4.12 of this Ordinance;
- m) shall require all if its subcontractors, at the time of execution of a subcontract, to make all the certifications required in Section 4.8 except for Subsections g and i.

In addition, all bidders are required to complete and sign the "Cuyahoga County Vendor Compliance" form (See Section 3, Attachment A) and the "Cuyahoga County Based Business Preference Program Match Option" form (See Section 3, Attachment B).

SECTION 3

REQUIRED BID DOCUMENTS

CHECKLIST FOR BIDDER'S USE:

The Proposal shall be submitted in a sealed envelope containing:

- ☒ Cuyahoga County Department of Public Works Construction Proposal Form (see Section 3, pg. 2 and 3)
- ☒ Non-Collusion Affidavit (see Section 3, pg. 5)
- ☒ Bid Guaranty (Bidder to provide per Section 2.06)
- ☒ Prime Contractor's Work Types Worksheet (see Section 3, pg. 6)
- ☒ SBE Subcontractor's Work Type Worksheet (see Section 3, pg. 7)
- ☒ Required Small Business Enterprise Forms (see Section 2.07)
- ☒ Drug Free Safety Program (DFSP) Participation (see Proposal Notes)
- ☒ "Cuyahoga County Vendor Compliance" Form (see Section 3, Attachment A)
- ☒ "Cuyahoga County Based Business Preference Program Match Option" Form (see Section 3, Attachment B)

Cautionary Notes:

1. Sign the original Proposal in ink.
2. Be certain that the bid guaranty is for a specific sum in the amount as instructed herein.
3. If a bond is submitted as the bid guaranty be certain:
 - a) The bond is properly executed and signed by both the Surety (Sureties) and the Bidder with names of the parties signing the documents typed immediately below signature. Affix corporate seals.
 - b) That the agent of the Surety has furnished credentials showing its power of attorney.
 - c) A financial statement of the bonding company is provided.
 - d) A "Certificate of Compliance" showing the legal right of the company to do business in the State of Ohio is provided.
4. Be certain the non-collusion affidavit is signed and notarized.
5. Per Section 2.12, Proposals found to be unbalanced may be rejected.

CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION PROPOSAL FORM

PROJECT NAME: 2013 – 2014 Countywide Preventative Maintenance – Crack Seal

REPORT NUMBER: 01-14

REQUISITION NUMBER: RQ-27992

TOTAL ESTIMATED COST: \$672,500.00

(No Award will be made for a "Grand Bid Total" greater than the "Total Estimated Cost", plus 10 percent of such estimated cost.)

BID DUE DATE: 8-1-13

BIDDER NAME: SPECIALIZED CONSTRUCTION INC.

PRIMARY OWNERSHIP: MASQUATY

TITLE OF OWNER: PRESIDENT / VICE PRESIDENT

ADDRESS: 711 HARVARD AVE
CUYAHOGA HTS.
OHIO 44105

TELEPHONE: (216) 271-3363 FACSIMILE: (216) 271-5310

EMAIL: J ALBERTY @ SPECIAL4.COM

To Cuyahoga County:

Having carefully examined this entire Bid Package, and all Addenda and Clarifications thereto, the signatory to this Proposal shall, if awarded this Contract, furnish all labor, materials, transportation and equipment necessary to complete all Work for the above named Project, as required in the Bid Package, for the sum stated on the sheets that follow.

The Bidder further acknowledges that the County Department of Public Works' estimated quantities appearing on this proposal form are approximate only, and are for the purpose of providing a uniform and accurate basis to compare bids for the awarding of the Contract. The Bidder further acknowledges that the use of the estimated quantities for the aforementioned purpose in no way binds the County to the use of said quantities, or any part thereof, in the execution of the Work. The Bidder also acknowledges that only those units *actually incorporated* in the Work will be paid for at the unit prices bid for the Work, and that the County Department of Public Works reserves the right to decrease or eliminate such items whenever deemed advisable in the progress of the work.

SIGNATORY CONFIRMATION:

(I)/(We) shall accept as full compensation for the aforesaid Work a certain sum of money, determined by the work actually performed, and calculated upon the basis of completed units for each Contract Item and the unit price of each item, as set forth herein.

For the purpose of tabulating Bids, awarding the Contract, and certifying funds, this sum, which is the total amount of this bid proposal, shall be:

FIVE HUNDRED TWENTY FOUR THOUSAND, FIVE HUNDRED & 00/100 Dollars

Bid total: \$ 524,500.⁰⁰

(Enter above the "Grand Total Bid" from the "Itemized Unit Price Bid Sheets", found in this Proposal Form.)

On acceptance of the Proposal for said Work (I)/(We), do hereby bind (myself)/(ourselves) to enter into a written contract with Cuyahoga County within ten (10) days after the Award of the Contract, per ORC Section 153.54.

COMPANY NAME: SPECIALIZED CONSTRUCTION INC.

BUSINESS ADDRESS: 711 HARVARD AVE CUYAHOGA HTS, OH 44105

INCORPORATED UNDER THE LAWS OF THE STATE OF: OHIO

SIGNATURE: [Signature]

PRINTED NAME: JOHN ALBERTY

TITLE: PRESIDENT/SECRETARY

DATE: 8-1-13

BUS. ADDRESS: 711 HARVARD AVE

CUYAHOGA HTS, OH 44105

SIGNATURE: [Signature]

PRINTED NAME: JOHN GALEK

TITLE: V.P. / TREASURER

DATE: 8-1-13

BUS. ADDRESS: 711 HARVARD AVE

CUYAHOGA HTS.

SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____

DATE: N/A

BUS. ADDRESS: _____

SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____

DATE: N/A

BUS. ADDRESS: _____

THE BIDDER HEREBY ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDA:

ADDENDUM NO. _____ DATED: _____ ADDENDUM NO. _____ DATED: _____

ADDENDUM NO. _____ DATED: _____ ADDENDUM NO. _____ DATED: _____

ADDENDUM NO. _____ DATED: _____ ADDENDUM NO. _____ DATED: _____

2013-2014 COUNTYWIDE MAINTENANCE
CRACK SEALING

ITEMIZED UNIT PRICE BID

REF NO.	ITEM NUMBER	ITEM EXTENSION	ITEM DESCRIPTION	WORK TYPE	UNIT	ESTIMATED QUANTITY	UNIT PRICE BID DOLLARS	UNIT PRICE BID I CTS	TOTAL AMOUNT BID DOLLARS	TOTAL AMOUNT BID I CTS
			PAVEMENT							
1	423	00108	CRACK SEALING, TYPE III, AS PER PLAN	11	POUND	300,000	\$	1.64	\$	492,000.00
			SECTION TOTAL PAVEMENT							492,000.00
			MAINTENANCE OF TRAFFIC							
2	614	11110	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	39	HOUR	200	\$	50.00	\$	10,000.00
			SECTION TOTAL MAINTENANCE OF TRAFFIC							10,000.00
			MISCELLANEOUS							
3	624	15001	MOBILIZATION, AS PER PLAN		EACH	100	\$	100.00	\$	10,000.00
4	SPECIAL		INITIAL ASSESMENT OF PAVEMENT CONDITION, AS PER PLAN	38	LANE MILE	250	\$	50.00	\$	12,500.00
			SECTION TOTAL MISCELLANEOUS							22,500.00
			GRAND TOTAL BID							\$ 524,500.00

SPECIALIZED CONSTRUCTION INC.
711 HARVARD AVENUE
CUYAHOGA HEIGHTS, OH 44105
216-271-3343
216-271-5310

NON-COLLUSION AFFIDAVIT

STATE OF OHIO)
)
COUNTY OF CUYAHOGA) SS.

JOHN ALBERTY being first duly
(officer of firm, company, corporation, etc.)

sworn, deposes and says that he/she is the PRESIDENT of
(sole owner, partner, president, etc.)

SPECIALIZED CONSULTING INC. making the
(firm, company, corporation, etc.)

foregoing Proposal and Bid; that such Bid is genuine and not collusive or a sham; that said Bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any other bidder or person to put in a sham Bid, or that such other person shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against the County or any persons interested in the proposed contract; and that all statements contained in said Proposal or Bid are true; and further that such bidder has not, directly or indirectly submitted this Bid, or contents thereof, or divulged information relative thereto to any association or to any member or agent thereof.

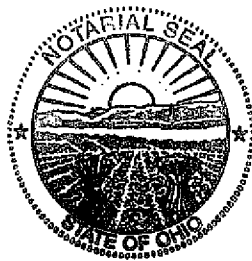
x [Signature]
(AFFIANT)

Sworn to and subscribed before me on this date: Aug. 1, 2013

[Signature]
(NOTARY PUBLIC)

My commission expires: 1-21-13

(SEAL)



LLOYD B CULPEPPER
Notary Public
In and for the State of Ohio
My Commission Expires
January 21, 2017

PRIME CONTRACTOR'S WORK TYPES WORKSHEET

PROJECT NAME: 2013 – 2014 Countywide Preventative Maintenance – Crack Seal

REQUISITION NUMBER: RQ-27992

BIDDER NAME: SPECIALIZED CONSTRUCTION INC.

WORK TYPE	ASSOCIATED REFERENCE NUMBERS	TOTAL BID AMOUNT FOR WORK TYPE
<u>11</u>	<u>1</u>	<u>\$ 411,600.00</u>
<u>39</u>	<u>2</u>	<u>\$ 10,000.00</u>
<u></u>	<u>3</u>	<u>\$ 10,000.00</u>
<u>38</u>	<u>4</u>	<u>\$ 12,500.00</u>
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

ATTACH ADDITIONAL SHEETS AS NEEDED

WORK TYPE TOTAL DOLLAR AMOUNT: \$ 474,100.00

TOTAL AMOUNT BID: \$ 524,500.00

The Work Type Total Dollar Amount must be equal to or greater than 50% of the Total
Amount Bid or the bid shall be rejected.

Instructions: On the "Itemized Unit Price Bid Sheets" each line item is assigned a reference number and a required ODOT work type, or, it is stated that no work type is required (NR). The Bidder shall complete this worksheet by entering each ODOT work type he/she is qualified to perform, including work type NR, followed by all the reference numbers associated with each individual ODOT work type. The "Total Bid Amount" for each ODOT work type shall then be entered. The "Work Type Total Dollar Amount" shall then be determined and entered on this worksheet.

OHIO DEPARTMENT OF TRANSPORTATION



Certificate of Qualification

This certifies that SPECIALIZED CONSTRUCTION INC has been registered by the Ohio Department of Transportation as a prequalified contractor. This certificate of qualification allows your company to submit bids on State Highway Projects up to but not exceeding \$18,883,900 less the contractual amount pending on all incomplete work including ODOT and non-ODOT work. Your certificate will expire on Monday, March 31, 2014.

This Certificate limits the holder to the classifications of work listed below:

- | | |
|---|-------------------------------|
| 1 Clearing & Grubbing | 16 Flexible Replacement |
| 6 Incidental Grading | 34 Earth Retaining Structures |
| 8 Temporary Soil Erosion & Sediment Control | 35 Drainage (Culverts, Misc.) |
| 9 Aggregate Bases | 38 Misc. Concrete |
| 10 Flexible Paving | 39 Maintenance of Traffic |
| 11 Apply Bituminous Treatments | 46 Landscaping |
| 13 Pavement Planing, Milling, Scarification | 48 Trucking |
| 15 Sawing | |

Director
Department of Transportation

Effective Date: 4/1/2013

Issued Date: 3/5/2013

Certificate Number: 13579

Deputy Director
Division of Construction Management

SBE SUBCONTRACTOR'S WORK TYPES WORKSHEET

PROJECT NAME: 2013 – 2014 Countywide Preventative Maintenance – Crack Seal

REQUISITION NUMBER: RQ-27992

BIDDER NAME: SPECIALIZED CONSTRUCTION INC.

SBE SUBCONTRACTOR'S NAME: C. A. AGRESTA

WORK TYPE	ASSOCIATED REFERENCE NUMBERS	TOTAL BID AMOUNT FOR WORK TYPE
<u>11</u>	<u>1</u>	<u>\$50,400.00</u>

ATTACH ADDITIONAL SHEETS AS NEEDED

WORK TYPE TOTAL DOLLAR AMOUNT: \$50,400.00

TOTAL AMOUNT BID: \$ 524,500.00

Instructions: On the "Itemized Unit Price Bid Sheets", each line item is assigned a reference number and a required ODOT work type, or, it is stated that no work type is required (NR). The Bidder shall complete this worksheet by entering each ODOT work type that their proposed SBE Subcontractor(s) is(are) qualified to perform, including work type NR, followed by all the reference numbers associated with each individual ODOT work type. The "Total Bid Amount" for each ODOT work type shall then be entered. The "Work Type Total Dollar Amount" shall then be determined and entered on this worksheet. Provide separate worksheets for each proposed SBE Subcontractor. (For information regarding subletting the Contract, See "General Provisions", Section 108.01).

ATTACHMENT A

**“CUYAHOGA COUNTY VENDOR
COMPLIANCE” FORM**



RQ Cuyahoga County Vendor Compliance Form

Sections 4.8 and 4.10 of the Cuyahoga County Contracting and Purchasing Procedures Ordinance (the "Contracting Ordinance") require that all successful vendors certify compliance with each and every requirement listed below prior to execution of a contract with the County. By initialing next to each requirement below and by affixing my signature at the end of this document, I hereby certify that I or the company that I am authorized to represent (the "vendor") will be in compliance with each requirement at the time of execution of a contract with the County resulting from the bid this form is attached to. Failure to initial next to each and every requirement below may result in dismissal of the bid this form is attached to. If any material breach of the certifications required below occurs during the contract performance by the vendor, the County may exercise any or all contractual remedies, including, but not limited to, contract termination for cause.

Please initial in the right hand column next to each criteria met		INITIAL
1	Vendor is in compliance with Ohio's Drug-Free Workplace requirements, including, but not limited to, maintaining a substance abuse policy that its personnel are subject to on the contract (the successful vendor shall provide this policy upon request).	1 <i>JA</i>
2	Vendor does not have an Experience Modification Rating greater than 1.5 with respect to the Bureau of Workers Compensation risk assessment rating.	2 <i>JA</i>
3	Vendor is in compliance and will remain in compliance with Federal and Ohio Equal Opportunity Employment Laws.	3 <i>JA</i>
4	Vendor will pay the prevailing wage rate and comply with other provisions set forth in Sections 4115.03 through 4115.16 of the Ohio Revised Code and Sections 4101:9-4-01 through 4101:9-4-28 of the Ohio Administrative Code, including, but not limited to, the filing of certified payroll reports.	4 <i>JA</i>
5	Vendor has not been debarred from public contracts for prevailing wage violations or found or determined by the state to have underpaid the required prevailing wage, whether intentionally or unintentionally, even if settled subsequent to the finding, more than three (3) times in the last ten (10) years, provided that, when aggregating for any single project, no finding of an underpaid amount of less than \$1,000.00 shall be considered, and no single finding based upon a journeyman-to-apprenticeship ratio shall be considered a violation of this provision unless as part of multiple, similar findings.	5 <i>JA</i>
6	Vendor has not been penalized or debarred from any federal, state, or local public contract or falsified certified payroll records, or has otherwise been found, after appeals, to have violated the Fair Labor Standards Act in the past seven (7) years, or during the vendors' entire time of doing business, if less than seven (7) years.	6 <i>JA</i>
7	Vendor has not had the professional license of any of its employees revoked for malfeasance or misfeasance.	7 <i>JA</i>
8	Vendor has not violated any unemployment or workers compensation law during the past five (5) years, or during the vendor's entire time of doing business, if less than five (5) years.	8 <i>JA</i>
9	Vendor does not have final, unsatisfied judgments against it which in total amount to 50% or more of the contract amount.	9 <i>JA</i>
10	Vendor will utilize, for work performed under the contract, supervisory personnel that have three (3) or more years of experience in the specific trade and who maintain the appropriate state license(s), if any.	10 <i>JA</i>
11	Vendor is properly licensed to perform all work as follows: (1) if performing a trades contract, shall be licensed pursuant to Ohio Revised Code Section 4740 as a heating, ventilating, and air conditioning contractor, refrigeration contractor, electrical contractor, plumbing contractor, or hydronics contractor; (2) if performing work regulated under Section 3737.65 of the Ohio Revised Code, be certified by the State Fire Marshall; and (3) if performing work under any other trade, occupation, or profession licensed under Title 47 of the Ohio Revised Code, be licensed for that trade, occupation, or profession as provided in the Ohio Revised Code. If the applicable contract does not involve any of the above-described work, Vendor shall place "N/A" and his/her initials in the box to the right.	11 <i>JA</i>
12	Vendor will, if performing a trades contract pursuant to Ohio Revised Code Section 4740, not subcontract more than twenty-five percent (25%) of the labor, excluding materials, for its awarded contract, unless to subcontractors also licensed pursuant to Ohio Revised Code Section 4740 or certified by the State Fire Marshall pursuant to Ohio Revised Code Section 3737.65. If the applicable contract does not involve this type of work, Vendor shall place "N/A" and his/her initials in the box to the right.	12 <i>JA</i>
13	Vendor will provide access as needed and allow the Agency of the Inspector General to perform the functions provided for in Section 4.12 of the Contracting Ordinance.	13 <i>JA</i>
14	Vendor will require all if its subcontractors, at the time of execution of a subcontract, to make all of the certifications required within this form, except for certification numbers 7, 8, and 10. If the applicable contract does not involve the use of subcontractors, Vendor shall place "N/A" and his/her initials in the box to the right.	14 <i>JA</i>
15	Vendor has met and will comply with all provisions of state law relating to ethics. Vendor has also met and will comply with all applicable Cuyahoga County Ordinances, including, but not limited to, the Ethics Ordinance, Inspector General Ordinance and the Contracting Ordinance.	15 <i>JA</i>

Printed Name: JOHN ALBERTY

Company: SPECIALIZED CONSTRUCTION INC.

Signature: *[Signature]*

Date: 8-1-13



**Cuyahoga County
Construction Vendor Ethics Training**

Certificate of Completion

is hereby granted to

Specialized Construction Inc.

November 30, 2011

ATTACHMENT B

“CUYAHOGA COUNTY BASED BUSINESS PREFERENCE PROGRAM MATCH OPTION” FORM

On November 27, 2012, Cuyahoga County Council approved Ordinance No. 02012-0020 which established the Cuyahoga County Based Business Preference (CCBB) Program. Details on the eligibility criteria for this program are outlined in the ordinance. At the latest, an entity desiring to participate in the Cuyahoga County Based Business Preference Program must submit, with and at the time of the bid, proposal, or qualifications, a completed signed and notarized Cuyahoga County Based Business Form. The Cuyahoga County Based Business Form is available from the Office of Procurement & Diversity and can be downloaded from its website (<http://opd.cuyahogacounty.us/>).

Per this ordinance, if a lowest price or lowest evaluated price is submitted by a non-Cuyahoga County business, a Cuyahoga County Based Business whose bid is within two percent (2%) of the lowest bid submitted by the non-Cuyahoga County Based Business Bidder shall be given the option to match the lowest bid. Vendors shall complete the Cuyahoga County Based Business Preference Program Match Option Form (attached) and submit it with its proposal.

CUYAHOGA COUNTY BASED BUSINESS PREFERENCE PROGRAM MATCH OPTION
REQ# {Enter Requisition #}

Cuyahoga County pursuant to Ordinance No. 02012-0020 dated November 27, 2012 approved the Cuyahoga County Based Business (CCBB) Preference Program.

The following standards will be used by the Cuyahoga County Business Based Preference Program to determine eligibility for certification as a Cuyahoga County Based Business.

A business applying for certification as a Cuyahoga County Based Business must meet the following standards:

a) The business must demonstrate that its principal place of business has been located in Cuyahoga County for at least three (3) years as registered in official documents filed with the Secretary of State of Ohio or the Cuyahoga County Fiscal Office. If one party to a joint venture has its principal place of business in Cuyahoga County, the joint venture shall be considered as having its principal place of business in Cuyahoga County; or

b) The business must be a business organization with a "significant economic presence" in Cuyahoga County. For purpose of this program,

"Significant economic presence" means a business organization that has for at least three years

- i. Had a sales office, division, sales outlet or manufacturing facility in Cuyahoga County; and
- ii. Pays required taxes to Cuyahoga County; and
- iii. Has an annual gross payroll in Cuyahoga County of at least \$100,000.00.

Per this ordinance, if a lowest price or lowest evaluated price is submitted by a non-Cuyahoga County business, a Cuyahoga County Based Business whose bid is within two percent (2%) of the lowest bid submitted by the non-Cuyahoga County Based Business Bidder shall be given the option to match the lowest bid.

Vendor is certified as a Cuyahoga County Based Business and agrees to match the lowest price or lowest evaluated price submitted by a non-Cuyahoga County Business if the bid is within two percent (2%) of my bid.

Yes ☒ No ☐

SPECIALIZED CONSTRUCTION INC.
Full Legal Name of Organization

x [Signature]
Authorized Signature

8-1-13
Date

SECTION 4

SAMPLE CONTRACT FORMS

**THESE SAMPLE CONTRACT FORMS ARE NOT TO BE COMPLETED BY THE BIDDER
BUT WILL BE COMPLETED AFTER THE CONTRACT IS AWARDED**

CUYAHOGA COUNTY FORM OF AGREEMENT

PERFORMANCE AND PAYMENT BOND (ORC 153.57)

CUYAHOGA COUNTY FORM OF AGREEMENT UNIT PRICE CONTRACT

THIS CONTRACT ("Contract"), made and entered into this _____ day of _____, 20____, by and between the County of Cuyahoga, Ohio (the "County"), and _____, a Contractor with principal offices located at _____ (the "Provider").

WITNESSETH: That for and in consideration of payments hereinafter mentioned, to be made by the County, the Provider agrees to furnish all materials, appliances, tools, and labor, and perform all the work required for:

Project Description:

Cuyahoga County, Ohio, according to the plans and specifications and estimates and to the satisfaction and acceptance of the County.

The Provider further covenants and agrees that the following papers shall be bound with or accompany and be an essential part of this Contract: Notices to bidders and proposals upon which this Contract was awarded; Plans and special specifications for the improvement contemplated by this Contract; The construction and material specifications together with the general clauses and covenants of the County in effect at the time this Contract is entered into; Provider's Performance Bond and this Agreement.

It is expressly stipulated and agreed that the Provider hereby covenants and agrees that he has full knowledge of the site, plans, specifications, and conditions relative to the performance of the work contemplated by this contract and made an essential part thereof, and that the affixing of his/her signature hereto shall constitute complete acceptance of and compliance with aforesaid plans, specifications, and conditions.

In consideration of these promises, the County agrees to pay to the Provider a certain sum of money, which shall be determined by the work actually performed by the Provider, calculated upon the basis of completed units for each item of the Contract ("Contract Item"), and the unit price of each Contract Item, as set forth in the proposal attached hereto and made a part hereof (the "Proposal"). This aforesaid sum, for the purposes of agreement and appropriation, and until actually calculated as aforementioned upon completion of the work, shall be understood to be:

Estimated Cost of Construction

_____ Dollars (\$ _____)

By entering into this Contract I agree, on behalf of the contracting business entity, its officers, employees, subcontractors, subgrantees, agents or assigns, to conduct this transaction by electronic means by agreeing that all documents requiring County signatures may be executed by electronic means, and that the electronic signatures affixed by the County to said documents shall have the same legal effect as if that signature was manually affixed to a paper version of the document. I also agree, on behalf of the aforementioned entities and persons, to be bound by the provisions of Chapters 304 and 1306 of the Ohio Revised Code, as they pertain to electronic transactions, and to comply with the electronic signature policy of Cuyahoga County.

IN WITNESS WHEREOF, the County and the Provider, through their duly authorized representatives, have hereunto subscribed and affixed their respective signatures.

IF AN INDIVIDUAL, DOING BUSINESS UNDER A FIRM NAME, SO STATE, GIVING BOTH NAMES.

IF A PARTNERSHIP, SO STATE, GIVING NAMES AND POST OFFICE ADDRESSES OF ALL PARTNERS ON LINES OPPOSITE.

IF A CORPORATION, GIVE FULL CORPORATION NAME AND STATE UNDER THE LAWS OF WHAT STATE YOU ARE INCORPORATED; OFFICER MUST INCLUDE SIGNATURE, TITLE, AND FURNISH A COPY, CURRENTLY DATED AND CERTIFIED BY THE SECRETARY OF THE CORPORATION OF A RESOLUTION BY THE BOARD OF DIRECTORS AUTHORIZING THE PARTICULAR OFFICER TO SIGN THE CONTRACT ON BEHALF OF THE COMPANY AND FURTHER CERTIFY THAT THE RESOLUTION IS IN FULL FORCE AND EFFECT.

COUNTY OF CUYAHOGA, OHIO

By: _____

Edward FitzGerald, County Executive

FIRM: _____

SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____

BOND OF PROVIDER
(PERFORMANCE and PAYMENT)
STATE OF OHIO – FOR THE USE OF CUYAHOGA COUNTY – SECTION 153.57 O.R.C.

KNOW ALL MEN BY THESE PRESENTS:

(1) That we as principal _____
_____, (the "Principal"),

(2) and we, as sureties _____
_____, (the "Surety or "Sureties"),

are held and firmly bound unto the State of Ohio for the use of Cuyahoga County, Ohio in the penal sum of _____

_____ (\$ _____) Dollars, for the payment of which, well and truly
to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, That

Whereas, the Principal has heretofore filed with the County Executive of Cuyahoga County, Ohio, a written proposal for:

_____ in _____ Cuyahoga County (the "Proposal").

Whereas, said County Executive has accepted the Proposal and has awarded to the Principal the contract for the construction and completion of the aforesaid work (the "Contract")

Now, if the Principal faithfully complies with and performs all of the terms, covenants and conditions of the Contract, according to the tenor thereof, and within the time prescribed and in accordance with the plans, specifications, and estimates furnished therefore, to which reference is here made, the same being a part hereof, and as if fully incorporated herein; AND, indemnifies the County against any damage that may result by reason of any failure to perform said Contract, or negligence of the providers in making said improvement or doing said work; AND pays all lawful claims of subcontractors, material men, and laborers for labor performed and materials furnished in carrying forward, performing or completing said Contract, the Principal and the Surety/Sureties shall be, for the benefit of any material man or laborer having a just claim, as well as for the obligee herein, released from this obligation and this obligation shall be void. Otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety/Sureties, for any or all claims hereunder, shall in no event exceed the penal amount of this obligation, as herein stated.

The said Surety/Sureties hereby stipulate(s) and agree(s) that any failure to complete work at the time named in the Contract, or extensions of time for completion, or modifications, omissions, or additions in or to the terms of said contract, or in or to the plans, specifications and estimates, shall not in any way effect the obligations of said Surety/Sureties on their bond.

Signed this _____ day of _____, 20__

PROVIDER: _____

SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____

BOND NO.: _____

PRINCIPAL: _____

Witnesses:

SECTION 5

WAGE DETERMINATION SCHEDULE

Prevailing Wage Determination Cover Letter

County: CUYAHOGA
Determination Date: 08/13/2013
Expiration Date: 11/13/2013

THE FOLLOWING PAGES ARE PREVAILING RATES OF WAGES ON PUBLIC IMPROVEMENTS FAIRLY ESTIMATED TO BE MORE THAN THE AMOUNT IN O.R.C. SEC. 4115.03 (b) (1) or (2), AS APPLICABLE.

Section 4115.05 provides, in part: "Where contracts are not awarded or construction undertaken within ninety days from the date of the establishment of the prevailing wages, there shall be a redetermination of the prevailing rate of wages before the contract is awarded." The expiration date of this wage schedule is listed above for your convenience only. This wage determination is not intended as a blanket determination to be used for all projects during this period without prior approval of this Department.

Section 4115.04, Ohio Revised Code provides, in part: "Such schedule of wages shall be attached to and made a part of the specifications for the work, and shall be printed on the bidding blanks where the work is done by contract..."

The contract between the letting authority and the successful bidder shall contain a statement requiring that mechanics and laborers be paid a prevailing rate of wage as required in Section 4115.06, Ohio Revised Code.

The contractor or subcontractor is required to file with the contracting public authority upon completion of the project and prior to final payment therefore an affidavit stating that he has fully complied with Chapter 4115 of the Ohio Revised Code.

The wage rates contained in this schedule are the "Prevailing Wages" as defined by Section 4115.03, Ohio Revised Code (the basic hourly rates plus certain fringe benefits). These rates and fringes shall be a minimum to be paid under a contract regulated by Chapter 4115 of the Ohio Revised Code by contractors and subcontractors. The prevailing wage rates contained in this schedule include the effective dates and wage rates currently on file. In cases where future effective dates are not included in this schedule, modifications to the wage schedule will be furnished to the Prevailing Wage Coordinator appointed by the public authority as soon as prevailing wage rates increases are received by this office.

"There shall be posted in a prominent and accessible place on the site of work a legible statement of the Schedule of Wage Rates specified in the contract to the various classifications of laborers, workmen, and mechanics employed, said statement to remain posted during the life of such contract." Section 4115.07, Ohio Revised Code.

Apprentices will be permitted to work only under a bona fide apprenticeship program if such program exists and if such program is registered with the Ohio Apprenticeship Council.

Section 4115.071 provides that no later than ten days before the first payment of wages is due to any employee of any contractor or subcontractor working on a contract regulated by Chapter 4115, Ohio Revised Code, the contracting public authority shall appoint one of his own employees to act as the prevailing wage coordinator for said contract. The duties of the prevailing wage coordinator are outlined in Section 4115.071 of the Ohio Revised Code.

Section 4115.05 provides for an escalator in the prevailing wage rate. Each time a new rate is established, that rate is required to be paid on all ongoing public improvement projects.

A further requirement of Section 4115.05 of the Ohio Revised Code is: "On the occasion of the first pay date under a contract, the contractor shall furnish each employee not covered by a collective bargaining agreement or understanding between employers and bona fide organizations of Labor with individual written notification of the job classification to which the employee is assigned, the prevailing wage determined to be applicable to that classification, separated into the hourly rate of pay and the fringe payments, and the identity of the prevailing wage Coordinator appointed by the public authority. The contractor or subcontractor shall furnish the same notification to each affected employee every time the job classification of the employee is changed."

Work performed in connection with the installation of modular furniture may be subject to prevailing wage.

**THIS PACKET IS NOT TO BE SEPARATED BUT IS TO REMAIN COMPLETE AS IT IS SUBMITTED TO YOU.
(Reference guidelines and forms are included in this packet to be helpful in the compliance of the
Prevailing Wage law.)**

wh1500

Name of Union: Asbestos Local 207 OH

[illegible]

ADAMS, ASHLAND, ASHTABULA*, ATHENS,
AUGLAIZE, BROWN, BUTLER*, CARROLL,
CHAMPAIGN, CLARK, CLERMONT,
CLINTON, COLUMBIANA, COSHOCTON,
CRAWFORD, CUYAHOGA, DARKE,
DELAWARE, FAIRFIELD, FAYETTE,
FRANKLIN, GEAUGA, GREENE, GUERNSEY,
HAMILTON, HARDIN, HARRISON,
HIGHLAND, HOCKING, HOLMES, HURON,
KNOX, LAKE, LICKING, LOGAN, LORAIN,
MADISON, MAHONING, MARION, MEDINA,
MIAMI, MONTGOMERY, MORGAN,
MORROW, MUSKINGUM, NOBLE, PERRY,
PICKAWAY, PORTAGE, PREBLE, RICHLAND,
ROSS, SHELBY, STARK, SUMMIT,
TRUMBULL, TUSCARAWAS, UNION,
VINTON, WARREN*, WAYNE

Special Jurisdictional Note : Butler County:(townships of Fairfield,Hanover,Liberty,Milford,Morgan,Oxford,Ripley,Ross,StClair,Union & Wayne.) (Lemon & Madison) Warren County: (townships of: Deerfield, Hamilton, Harlan, Salem, Union & Washington). (Clear Creek, Franklin, Mossie, Turtle Creek & Wayne). Ashtabula County: (post offices & townships of Ashtabula, Austinburg, Geneva, Harperfield, Jefferson, Plymouth & Saybrook) (townships of Andover, Cherry Valley, Colbrook, Canneaut, Denmark, Dorset, East Orwell, Hartsgrrove, Kingville, Lenox, Monroe,Morgan,New Lyme,North Kingsville, Orwell, Pierpoint, Richmond Rock Creek, Rome, Sheffield, Trumbull, Wayne, Williamsfield & Windsor) Erie County:(post offices & townships of Berlin, Berlin Heights,Birmingham,Florence ,Huron, Milan, Shinrock & Vermillion)

Details :

Asbestos & lead paint abatement including, but not limited to the removal or encapsulation of asbestos & lead paint, all work in conjunction with the preparation of the removal of same & all work in conjunction with the clean up after said removal. The removal of all insulation materials, whether they contain asbestos or not, from mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) is recognized as being the exclusive work of the Asbestos Abatement Workers.

On all mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) that are going to be demolished, the removal of all insulating materials whether they contain asbestos or not shall be the exclusive work of the Laborers.

An Abatement Journeyman is anyone who has more than 300 hours in the Asbestos Abatement field.

Mechanics & apprentices engaged in the

manufacture, fabrication, assembling, molding, handling, erection, spraying, pouring, mixing, hanging, clean-up, preparation, application, adjusting, alteration, repairing, dismantling, reconditioning, testing & maintenance of Heat & Frost Insulation such as Magnesia, Asbestos, Hair Felt, Wool Felt, Cork, Mineral Wool, Infusorial Earth, Mercerized Silk, Flax, Fiber, Fire Felt, Asbestos Paper, Asbestos Curtain, Asbestos Millboard, Fiberglass, Foam glass, Styrofoam, Polyurethane, fire stopping, smoke stopping, all recyclable material, soundproofing, all penetrations, any flexible or rigid fireproofing, all jacketing systems including metal, lead, and PVC or other material.

Name of Union: Boilermaker Local 744

Craft : Boilermaker Effective Date : 07/01/2009 Last Posted : 06/30/2010

ASHTABULA, CARROLL, COSHOCTON,
CUYAHOGA, GEAUGA, HARRISON, HOLMES,
LAKE, LORAIN, MAHONING, MEDINA,
PORTAGE, STARK, SUMMIT, TRUMBULL,

TUSCARAWAS, WAYNE

Special Jurisdictional Note :

Details :

Name of Union: Bricklayer Local 36 Tile

Craft : Bricklayer Effective Date : 06/20/2012 Last Posted : 06/20/2012

Note that the classification description is clarified after the local union number at the top of the page.

Ratio :

5 Journeymen to 1 Apprentice

**Jurisdiction (* denotes special
jurisdictional note) :**

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN, MEDINA

Special Jurisdictional Note :

Details :

[illegible]

8th 6 Months	85.00	\$27.36	\$6.35	\$5.23	\$0.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.59	\$53.27
TRAINEES 1st 90 Days	45.00	\$14.49	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14.49	\$21.73
1st Year AFTER 90 Days	45.00	\$14.49	\$6.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20.84	\$28.08
2nd Year	50.00	\$16.09	\$6.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.44	\$30.49

Special Calculation Note :**Ratio :**

5 Journeyman to 1 Apprentice
 10 Journeyman to 2 Apprentices
 15 Journeyman to 2 Apprentices
 20 Journeyman to 4 Apprentices
 25 Journeyman to 5 Apprentices

Jurisdiction (* denotes special jurisdictional note) :
 CUYAHOGA, LORAIN, MEDINA

Mason Trainee Ratio

5 - 6 Journeyman to 1 Apprentices permits 1 Mason Trainees

7 - 10 Journeyman to 2 Apprentices permits 2

Mason Trainees

For each additional 5 Journeyman to 1 Apprentices,
 for every 3 additional Apprentices, 1 Mason Trainee
 may be added

Special Jurisdictional Note :**Details :**

Name of Union: Bricklayer Local 5 Terrazzo Finisher

Craft : Bricklayer Effective Date : 10/03/2012 Last Posted : 10/03/2012

Special Calculation Note : Classification title contains "Bricklayer" because contract originates within the Bricklayer Local.
Note that the classification description is clarified after the local union number at the top of the page.

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN, MEDINA, PORTAGE, SUMMIT

6 Journeymen to 3 Apprentices
8 Journeymen to 4 Apprentices
10 Journeymen to 5 Apprentices
12 Journeymen to 6 Apprentices

Special Jurisdictional Note :**Details :**

Tile Finishers: do all the cleaning, acid washing, grouting, by any methods or means. Also unpacking of all tiles, opening of all mastic containers, mixing of all mortar, thin-set and epoxy materials, also the distribution of it. They shall handle and distribute all materials such as sand, cement, lime, tile, all types of tile panels, prefabricated tile units, plastic materials and protective covering of all tile. Clean up and removal of always used in connection of said work.

Terrazzo Finishers: Assisting in grinding, and handling of material whether by hand or wheel barrow, or power buggies, including sand Portland cement, resinous cement and admixtures, aggregates of marble, stone or other compositions, bonding adhesives, sealers, waxes, and coatings used for Terrazzo Mosaic work, preparing, mixing by hand or machine, and distributing (spreading) all kinds of underbed or underlayment necessary and all scratch coat used for terrazzo and mosaic work. Also the rubbing, grinding, cleaning, sealing and polishing same either by hand or machine. will assist in the installation of the sand bed, tar paper, wire lath, divider strips, and rolling procedures and acid etching of all concrete floors that require it before installation. Shall handle all materials and assist in the installation of all types of terrazzo floors whether conventional or thin-set variety.

Marble Finishers: Loading and unloading handling and distributing of marble materials including the mixing of all materials used for the installation of marble, such as cement underbeds for the floors, thin-set or epoxies including but not limited to plastic materials. Clean up and removal of all waste material of said work. Cleaning and grouting of all marble and slate, and all polishing of marble and slate floors.

Name of Union: Bricklayer Local 5 Tile & Marble Finisher

Craft : Bricklayer Effective Date : 10/03/2012 Last Posted : 10/03/2012

Special Calculation Note : Classification title contains "Bricklayer" because contract originates within the Bricklayer Local.
Note that the classification description is clarified after the local union number at the top of the page.

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN, MEDINA, PORTAGE, SUMMIT

6 Journeymen to 3 Apprentice
8 Journeymen to 4 Apprentice
10 Journeymen to 5 Apprentice
12 Journeymen to 6 Apprentice

Special Jurisdictional Note :

Details :

Tile Finishers:do all the cleaning, acid washing,grouting,by any methods or means. Also unpacking of all tiles,opening of all mastic containers,mixing of all mortar,thin-set and epoxy materials,also the distribution of it. They shall handle and distribute all materials such as sand,cement,lime,tile,all types of tile panels,prefabricated tile units, plastic materials and protective covering of all tile.Clean up and removal of always used in connection of said work.

Terrazzo Finishers:Assisting in grinding, and handling of material whether by hand or wheel barrow, or power buggies, including sand Portland cement, resinous cement and admixtures, aggregates of marble, stone or other compositions, bonding adhesives, sealers, waxes, and coatings used for Terrazzo Mosaic work, preparing, mixing by hand or machine, and distributing (spreading) all kinds of underbed or underlayment necessary and all scratch coat used for terrazzo and mosaic work. Also the rubbing, grinding, cleaning, sealing and polishing same either by hand or machine. will assist in the installation of the sand bed, tar paper, wire lath, divider strips, and rolling procedures and acid etching of all concrete floors that require it before installation. Shall handle all materials and assist in the installation of all types of terrazzo floors whether conventional or thin-set variety.

Marble Finishers>Loading and unloading handling and distributing of marble materials including the mixing of all materials used for the installation of marble, such as cement underbeds for the floors, thin-set or epoxies including but not limited to plastic materials. Clean up and removal of all waster material of said work. Cleaning and grouting of all marble and slate, and all polishing of marble and slate floors.

ADAMS, ALLEN, ASHLAND, ASHTABULA,
ATHENS, AUGLAIZE, BELMONT, BROWN,
BUTLER, CARROLL, CHAMPAIGN, CLARK,
CLERMONT, CLINTON, COLUMBIANA,
COSHOCOTON, CRAWFORD, CUYAHOGA,
DARKE, DEFIANCE, DELAWARE, ERIE,
FAIRFIELD, FRANKLIN, FULTON, GALLIA,
GEAUGA, GREENE, GUERNSEY, HAMILTON,
HANCOCK, HARDIN, HARRISON, HENRY,
HIGHLAND, HOCKING, HOLMES, HURON,
JACKSON, JEFFERSON, KNOX, LAKE,
LAWRENCE, LICKING, LOGAN, LORAIN,
LUCAS, MADISON, MAHONING, MARION,

MEDINA, MEIGS, MERCER, MIAMI, MONROE,
MONTGOMERY, MORGAN, MORROW,
MUSKINGUM, NOBLE, OTTAWA, PAULDING,
PERRY, PICKAWAY, PIKE, PORTAGE,
PREBLE, PUTNAM, RICHLAND, ROSS,
SANDUSKY, SCIOTO, SENECA, SHELBY,
STARK, SUMMIT, TRUMBULL,
TUSCARAWAS, UNION, VAN WERT, VINTON,
WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

Name of Union: Carpenter Millwright Local 1871 NE District H

Craft : Carpenter Effective Date : 09/26/2012 Last Posted : 09/26/2012

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Jurisdiction (* denotes special jurisdictional note) :

4 Journeymen to 1 Apprentice

ASHLAND, ASHTABULA, CUYAHOGA, ERIE,
GEAUGA, HURON, LAKE, LORAIN, MEDINA,
PORTAGE, RICHLAND, SUMMIT

Special Jurisdictional Note :

Details :

If certain projects warrant a larger percentage of apprentices, it will be agreed to increase the ratio of apprentices to journeymen, but Not to exceed (1) Apprentice to (4) Journeymen.

ADAMS, ALLEN, ASHLAND, ASHTABULA,
ATHENS, AUGLAIZE, BELMONT, BROWN,
BUTLER, CARROLL, CHAMPAIGN, CLARK,
CLERMONT, CLINTON, COLUMBIANA,
COSHOCOTON, CRAWFORD, CUYAHOGA,
DARKE, DEFIANCE, DELAWARE, ERIE,
FAIRFIELD, FAYETTE, FRANKLIN, FULTON,
GALLIA, GEAUGA, GREENE, GUERNSEY,
HAMILTON, HANCOCK, HARDIN,
HARRISON, HENRY, HIGHLAND, HOCKING,
HOLMES, HURON, JACKSON, JEFFERSON,
KNOX, LAKE, LAWRENCE, LICKING, LOGAN,
LORAIN, LUCAS, MADISON, MAHONING,
MARION, MEDINA, MEIGS, MERCER, MIAMI,
MONROE, MONTGOMERY, MORGAN,
MORROW, MUSKINGUM, NOBLE, OTTAWA,

PAULDING, PERRY, PICKAWAY, PIKE,
PORTAGE, PREBLE, PUTNAM, RICHLAND,
ROSS, SANDUSKY, SCIOTO, SENECA,
SHELBY, STARK, SUMMIT, TRUMBULL,
TUSCARAWAS, UNION, VAN WERT, VINTON,
WARREN, WASHINGTON, WAYNE,
WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note : Industrial Dock and Door is the installation of overhead doors,
roll up doors and dock leveling equipment

Details :

10/27/10 New Contract jc

Jurisdiction (* denotes special

2 Journeymen to 1 Apprentice

jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE

Special Jurisdictional Note :

Details :

ASHLAND, ASHTABULA, CUYAHOGA, ERIE,

GEAUGA, HURON, LAKE, LORAIN, MEDINA,
PORTAGE, RICHLAND, SUMMIT

Special Jurisdictional Note :

Details :

If certain projects warrant a larger percentage of apprentices, it will be agreed to increase the ratio of apprentices to journeymen, but Not to exceed (1) Apprentice to (2) Journeymen.
Employees working with creosoted, chemically treated or toxic materials shall receive \$.50 in addition to regular rate.

ADAMS, ALLEN, ASHLAND, ASHTABULA,
ATHENS, AUGLAIZE, BELMONT, BROWN,

BUTLER, CARROLL, CHAMPAIGN, CLARK,
CLERMONT, CLINTON, COLUMBIANA,
COSHOCOTON, CRAWFORD, CUYAHOGA,
DARKE, DEFIANCE, DELAWARE, ERIE,
FAIRFIELD, FAYETTE, FRANKLIN, FULTON,
GALLIA, GEAUGA, GREENE, GUERNSEY,
HAMILTON, HANCOCK, HARDIN,
HARRISON, HENRY, HIGHLAND, HOCKING,
HOLMES, HURON, JACKSON, JEFFERSON,
KNOX, LAKE, LAWRENCE, LICKING, LOGAN,
LORAIN, LUCAS, MADISON, MAHONING,
MARION, MEDINA, MEIGS, MERCER, MIAMI,
MONROE, MONTGOMERY, MORGAN,
MORROW, MUSKINGUM, NOBLE, OTTAWA,
PAULDING, PERRY, PICKAWAY, PIKE,
PORTAGE, PREBLE, PUTNAM, RICHLAND,
ROSS, SANDUSKY, SCIOTO, SENECA,
SHELBY, STARK, SUMMIT, TRUMBULL,
TUSCARAWAS, UNION, VAN WERT, VINTON,
WARREN, WASHINGTON, WAYNE,
WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :

Office systems is defined as modular systems with demountable units such as desks, partitions and shelving. All work in connection with the assembly, reconfiguration and repair of all work in the office system field.

INSTALLER: is defined as a qualified office systems mechanic capable of laying out, estimating and installing various office system manufactured products.

INSTALL TRAINEE: is defined as a person training in the estimating, layout and installation in all facets of the office systems industry. An installer trainee will work to assist an installer or lead installer in all installations. He is NOT permitted to work without the assistance of lead installer

INSTALL HELPER: is defined as a person who assists in the delivery, staging and clean up of related office system work. He is NOT to be involved with the installation or layout of work related to office systems.

Receiving, unloading, unpacking, & removal of rubbish shall be done by install helpers.

Name of Union: Carpenter & Floorlayer NE District D

Craft : Carpenter Effective Date : 09/26/2012 Last Posted : 09/26/2012

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Extra \$.02 (\$.47) is for Training for Floorlayers and Floorlayers Apprentice.

Ratio :

4 Journeymen to 1 Apprentice

**Jurisdiction (* denotes special
jurisdictional note) :**

ASHTABULA, CUYAHOGA, GEAUGA, LAKE

Special Jurisdictional Note :

Details :

Name of Union: Cement Mason Bricklayer Local 97 NevHwy A

Craft : Bricklayer Effective Date : 10/10/2012 Last Posted : 10/10/2012

Special Calculation Note : NOT FOR BUILDING CONSTRUCTION.

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ASHTABULA,
ATHENS, AUGLAIZE, BELMONT, BROWN,
BUTLER, CARROLL, CHAMPAIGN, CLARK,
CLERMONT, CLINTON, COLUMBIANA,
COSHOCOTON, CRAWFORD, CUYAHOGA,
DARKE, DEFIANCE, DELAWARE, ERIE,
FAIRFIELD, FAYETTE, FRANKLIN, FULTON,
GALLIA, GEAUGA, GREENE, GUERNSEY,
HAMILTON, HANCOCK, HARDIN,
HARRISON, HENRY, HIGHLAND, HOCKING,
HOLMES, HURON, JACKSON, JEFFERSON,

KNOX, LAKE, LAWRENCE, LICKING, LOGAN,
LORAIN, LUCAS, MADISON, MAHONING,
MARION, MEDINA, MEIGS, MERCER, MIAMI,
MONROE, MONTGOMERY, MORGAN,
MORROW, MUSKINGUM, NOBLE, OTTAWA,
PAULDING, PERRY, PICKAWAY, PIKE,
PORTAGE, PREBLE, PUTNAM, RICHLAND,
ROSS, SANDUSKY, SCIOTO, SENECA,
SHELBY, STARK, SUMMIT, TRUMBULL,
TUSCARAWAS, UNION, VAN WERT, VINTON,
WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site
Heavy Construction, Airport Construction Or Railroad Construction Work.
(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant,
Waste Plant, & Water Treatment Facilities, Construction.

ADAMS, ALLEN, ASHLAND, ASHTABULA,
ATHENS, AUGLAIZE, BELMONT, BROWN,
BUTLER, CARROLL, CHAMPAIGN, CLARK,
CLERMONT, CLINTON, COLUMBIANA,
COSHOCOTON, CRAWFORD, CUYAHOGA,
DARKE, DEFIANCE, DELAWARE, ERIE,
FAIRFIELD, FAYETTE, FRANKLIN, FULTON,
GALLIA, GEAUGA, GREENE, GUERNSEY,
HAMILTON, HANCOCK, HARDIN,
HARRISON, HENRY, HIGHLAND, HOCKING,

HOLMES, HURON, JACKSON, JEFFERSON,
KNOX, LAKE, LAWRENCE, LICKING, LOGAN,
LORAIN, LUCAS, MADISON, MAHONING,
MARION, MEDINA, MEIGS, MERCER, MIAMI,
MONROE, MONTGOMERY, MORGAN,
MORROW, MUSKINGUM, NOBLE, OTTAWA,
PAULDING, PERRY, PICKAWAY, PIKE,
PORTAGE, PREBLE, PUTNAM, RICHLAND,
ROSS, SANDUSKY, SCIOTO, SENECA,
SHELBY, STARK, SUMMIT, TRUMBULL,
TUSCARAWAS, UNION, VAN WERT, VINTON,
WARREN, WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site
Heavy Construction, Airport Construction Or Railroad Construction Work.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant,
Waste Plant, & Water Treatment Facilities, Construction.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work, Pollution Control, Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

Details :

Name of Union: Electrical Local 38

Craft : Electrical Effective Date : 05/30/2012 Last Posted : 05/30/2012

Special Calculation Note : OTHER: National Electrical Benefit Fund (NEBF).

Jurisdiction (* denotes special jurisdictional note) :
CUYAHOGA, GEAUGA*, LORAIN*

1 to 3 Journeyman to 2 Apprentice
4 to 6 Journeymen to 4 Apprentice

7 to 9 Journeymen to 6 Apprentice
and continue as above per job site

Special Jurisdictional Note : In Geauga County the following townships are included:
(Bainbridge, Chester and Russell). In Lorain County the following township is included
(Columbia).

Details :

Name of Union: Electrical Local 38 Lightning Rod

Craft : Electrical Effective Date : 08/08/2012 Last Posted : 08/08/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrical Lightning Protection Installer 60 months and up	\$26.59		\$6.05	\$0.80	\$0.00	\$1.89	\$0.80	\$0.00	\$0.00	\$0.00	\$36.13	\$49.42
Experience Level	Percent											
Lightning Protection Installer 1st day-6 months	50.00	\$13.30	\$6.05	\$0.40	\$0.00	\$0.65	\$0.40	\$0.00	\$0.00	\$0.00	\$20.79	\$27.44
Lightning Protection Installer 2nd 6 months	55.00	\$14.62	\$6.05	\$0.44	\$0.00	\$0.71	\$0.44	\$0.00	\$0.00	\$0.00	\$22.26	\$29.58
Lightning Protection Installer 3rd 6th months	60.00	\$15.95	\$6.05	\$0.48	\$0.00	\$0.78	\$0.48	\$0.00	\$0.00	\$0.00	\$23.74	\$31.72
Lightning Protection Installer 4th 6 months	65.00	\$17.28	\$6.05	\$0.52	\$0.00	\$0.84	\$0.52	\$0.00	\$0.00	\$0.00	\$25.21	\$33.86
Lightning Protection Installer 25	70.00	\$18.61	\$6.05	\$0.56	\$0.00	\$1.32	\$0.56	\$0.00	\$0.00	\$0.00	\$27.10	\$36.41

to 36 months												
Lightning Protection Installer 37 to 48 months	80.00	\$21.27	\$6.05	\$0.64	\$0.00	\$1.51	\$0.64	\$0.00	\$0.00	\$0.00	\$30.11	\$40.75
Lightning Protection Installer 49 to 60 months	90.00	\$23.93	\$6.05	\$0.72	\$0.00	\$1.70	\$0.72	\$0.00	\$0.00	\$0.00	\$33.12	\$45.09

Special Calculation Note : Sixty months or more experience requires journeyman rate.

Ratio :

3 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CUYAHOGA, GEAUGA*, LORAIN*

Special Jurisdictional Note : In Geauga County the following townships are included: (Bainbridge, Chester and Russell). In Lorain County the following township is included (Columbia).

Details :

Scope of work but not limited to: The installation, operation, maintenance, repair and service of equipment and appliances used in a system of lightning protection systems.

Intermediate Journeymen to be trained by the employer to meet all standards in the industry.

Table 1 - Electrical Effective Date 7-01-96												
	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrician	\$35.48		\$7.50	\$9.80	\$0.42	\$0.00	\$0.00	\$1.06	\$0.00	\$0.00	\$54.26	\$72.00
Construction Electrician 3	\$22.50		\$4.15	\$0.68	\$0.81	\$0.00	\$0.68	\$0.00	\$0.00	\$0.10	\$28.92	\$40.17
Construction Electrician 2	\$17.68		\$4.15	\$0.53	\$0.81	\$0.00	\$0.53	\$0.00	\$0.00	\$0.10	\$23.80	\$32.64
Construction Electrician 1	\$16.07		\$4.15	\$0.48	\$0.81	\$0.00	\$0.48	\$0.00	\$0.00	\$0.10	\$22.09	\$30.13
Construction Wireman 4	\$14.46		\$4.15	\$0.43	\$0.81	\$0.00	\$0.43	\$0.00	\$0.00	\$0.10	\$20.38	\$27.61
Construction Wireman 3	\$12.86		\$4.15	\$0.39	\$0.81	\$0.00	\$0.39	\$0.00	\$0.00	\$0.10	\$18.70	\$25.13
Construction Wireman 2	\$11.25		\$4.15	\$0.34	\$0.81	\$0.00	\$0.34	\$0.00	\$0.00	\$0.10	\$16.99	\$22.61
Construction Wireman 1	\$11.25		\$4.15	\$0.34	\$0.81	\$0.00	\$0.34	\$0.00	\$0.00	\$0.10	\$16.99	\$22.61

9th 6 Months	75.00	\$26.61	\$7.50	\$6.37	\$0.42	\$0.00	\$0.00	\$0.80	\$0.00	\$0.00	\$41.70	\$55.00
10th 6 Months	80.00	\$28.38	\$7.50	\$6.37	\$0.42	\$0.00	\$0.00	\$0.85	\$0.00	\$0.00	\$43.52	\$57.72

Special Calculation Note : OTHER: National Electrical Benefit Fund (NEBF).

Ratio :

1 to 3 Journeyman to 2 Apprentice
 4 to 6 Journeymen to 4 Apprentice
 7 to 9 Journeymen to 6 Apprentice
 and continue as above per job site

Jurisdiction (* denotes special jurisdictional note) :

CUYAHOGA, GEAUGA*, LORAIN*

Construction Electrician and Construction Wireman Ratio

There shall be a minimum ratio of one inside Journeyman Wireman to every (4) employees of different classifications per jobsite. An Inside Journeyman Wireman is required on the project as the fifth (5th) worker or when apprentices are used.

Special Jurisdictional Note : In Geauga County the following townships are included: (Bainbridge, Chester and Russell). In Lorain County the following township is included (Columbia).

The scope of work for the light commercial agreement shall apply to the following small medical clinics, stand-alone doctor and dentist offices with up to 600 amp service (not attached to a hospital), gas stations/convenience stores, fast food restaurants and franchised chain restaurants including independent bars and taverns, places of worship, funeral homes, nursing homes, assisted living facilities and day-care facilities under 15,000 sq ft, small office, retail/wholesale facilities under 15,000 sq ft with less than 10 units attached, storage units, car washes, express hotels and motels (4 stories or less) without conference or restaurants facilities, residential units (subject to Davis Bacon Rates) small stand-alone manufacturing facilities when free standing and not part of a larger facility (less than 15,000 sq ft) solar projects (500 panels or less) unless other wise covered under this agreement, lighting retrofits (when not associated with remodels involving branch re-circuiting) Lighting retrofits shall be defined as the changing of lamps and ballasts in existing light fixtures and shall also include the one for one replacement of existing fixtures.

Details :

Name of Union: Electrical Local 38 Voice Data Video

Craft : Voice Data Video Effective Date : 05/23/2012 Last Posted : 05/23/2012

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Jurisdiction (* denotes special jurisdictional note) :
CUYAHOGA, GEAUGA*, LORAIN*

Special Jurisdictional Note : In Geauga County the following townships are included (Bainbridge, Chester and Russell). In Lorain County the following township is included

(Columbia).

Details :

*Installer Technician - Successful completion of the Installer/Tech Apprenticeship Program or have been certified by an IBEW/NECA Joint apprenticeship Program as a Installer/Technician.

* Communications Technician - At least (2) years experience as a Installer/Technician and a minimum of 12 hours continuous related education or have been certified by an IBEW/NECA Joint Apprenticeship and Training Program as a Communications/Technician.

The following work is excluded from the Teledata Technician work scope:

The installation of computer systems in industrial applications such as assembly lines, robotics, computer controller manufacturing systems.

The installation of conduit and/ or raceways shall be installed by Inside Wireman . On sites where there is no Inside Wireman employed, the Teledata Technician may install raceway, or conduit not greater then 10 ft.

Fire Alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit

All HVAC control work.

Name of Union: Electrical Local 71
DOT Traffic Signal Highway Lighting Cleveland

Craft : Lineman Effective Date : 05/23/2012 Last Posted : 05/23/2012

[illegible]

Ratio :

Jurisdiction (* denotes special

1 Journeymen to 1 Apprentice

Jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN

Special Jurisdictional Note :

Details :

A groundman when directed shall assist a Journeymen in the performance of his/her work on the ground, including the use of hand tools. Under no circumstances shall this classification climb poles, towers, ladders, or work from an elevated platform or bucket truck. This classification shall not perform work normally assigned to an apprentice lineman.

Name of Union: Electrical Local 71 Cleveland Commercial Projects

Craft : Lineman Effective Date : 05/23/2012 Last Posted : 05/23/2012

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Ratio :

2 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN

Special Jurisdictional Note :

Details :

A groundman when directed shall assist a Journeymen in the performance of his/her work on the ground, including the use of hand tools. Under no circumstances shall this classification climb poles, towers, ladders, or work from an elevated platform or bucket truck. This classification shall not perform work normally assigned to an apprentice lineman.

Name of Union: Electrical Local 71 Cleveland Municipal Power & Transit

Craft : Lineman Effective Date : 05/23/2012 Last Posted : 05/23/2012

Special Calculation Note : No special calculations for this skilled craft wage rate are required

at this time.

Ratio :

2 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN

Special Jurisdictional Note :

Details :

A groundman when directed shall assist a Journeymen in the performance of his/her work on the ground, including the use of hand tools. Under no circumstances shall this classification climb poles, towers, ladders, or work from an elevated platform or bucket truck. This classification shall not perform work normally assigned to an apprentice lineman.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Electrical Local 71 High Tension Pipe Type Cable

Change # : LCN01-2012jcLoc7

Craft : Lineman Effective Date : 05/23/2012 Last Posted : 05/23/2012

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lineman	\$36.04	\$5.00	\$1.08	\$0.36	\$0.00	\$7.21	\$0.00	\$0.00	\$0.00	\$49.69	\$67.71
Certified Lineman Welder	\$36.04	\$5.00	\$1.08	\$0.36	\$0.00	\$7.21	\$0.00	\$0.00	\$0.00	\$49.69	\$67.71
Certified Cable Splicer	\$36.04	\$5.00	\$1.08	\$0.36	\$0.00	\$7.21	\$0.00	\$0.00	\$0.00	\$49.69	\$67.71
Operator A	\$32.40	\$5.00	\$0.97	\$0.32	\$0.00	\$6.48	\$0.00	\$0.00	\$0.00	\$45.17	\$61.37
Operator B	\$28.76	\$5.00	\$0.86	\$0.29	\$0.00	\$5.75	\$0.00	\$0.00	\$0.00	\$40.66	\$55.04
Operator C	\$23.31	\$5.00	\$0.70	\$0.23	\$0.00	\$4.66	\$0.00	\$0.00	\$0.00	\$33.90	\$45.55
Groundman 0-12 months Exp	\$18.02	\$5.00	\$0.54	\$0.18	\$0.00	\$3.60	\$0.00	\$0.00	\$0.00	\$27.34	\$36.35
Groundman 0-12 months Exp w/CDL	\$19.82	\$5.00	\$0.59	\$0.20	\$0.00	\$3.96	\$0.00	\$0.00	\$0.00	\$29.57	\$39.48
Groundman 1 yr or more	\$19.82	\$5.00	\$0.59	\$0.20	\$0.00	\$3.96	\$0.00	\$0.00	\$0.00	\$29.57	\$39.48
Groundman 1 yr or more w/CDL	\$23.43	\$5.00	\$0.70	\$0.23	\$0.00	\$4.69	\$0.00	\$0.00	\$0.00	\$34.05	\$45.76
Equipment Mechanic A	\$28.76	\$5.00	\$0.86	\$0.29	\$0.00	\$5.75	\$0.00	\$0.00	\$0.00	\$40.66	\$55.04
Equipment Mechanic B	\$26.04	\$5.00	\$0.78	\$0.26	\$0.00	\$5.21	\$0.00	\$0.00	\$0.00	\$37.29	\$50.31
Equipment Mechanic C	\$23.31	\$5.00	\$0.70	\$0.23	\$0.00	\$4.66	\$0.00	\$0.00	\$0.00	\$33.90	\$45.55

X-Ray Technician	\$36.04		\$5.00	\$1.08	\$0.36	\$0.00	\$7.21	\$0.00	\$0.00	\$0.00	\$49.69	\$67.71
Apprentice	Percent											
1st 1000 hrs	60.00	\$21.62	\$5.00	\$0.65	\$0.22	\$0.00	\$4.32	\$0.00	\$0.00	\$0.00	\$31.81	\$42.63
2nd 1000 hrs	65.00	\$23.43	\$5.00	\$0.70	\$0.23	\$0.00	\$4.69	\$0.00	\$0.00	\$0.00	\$34.05	\$45.76
3rd 1000 hrs	70.00	\$25.23	\$5.00	\$0.76	\$0.25	\$0.00	\$5.05	\$0.00	\$0.00	\$0.00	\$36.29	\$48.90
4th 1000 hrs	75.00	\$27.03	\$5.00	\$0.81	\$0.27	\$0.00	\$5.41	\$0.00	\$0.00	\$0.00	\$38.52	\$52.04
5th 1000 hrs	80.00	\$28.83	\$5.00	\$0.86	\$0.29	\$0.00	\$5.77	\$0.00	\$0.00	\$0.00	\$40.75	\$55.17
6th 1000 hrs	85.00	\$30.63	\$5.00	\$0.92	\$0.31	\$0.00	\$6.13	\$0.00	\$0.00	\$0.00	\$42.99	\$58.31
7th 1000 hrs	90.00	\$32.44	\$5.00	\$0.97	\$0.32	\$0.00	\$6.49	\$0.00	\$0.00	\$0.00	\$45.22	\$61.43

Special Calculation Note :

Operator "A"

John Henry Rock Drill, D-6 (or equivalent) and above, Trackhoe Digger, (320 Track excavator),
Cranes (greater than 25 tons and less than 45 tons).

Operator "B"

Cranes (greater than 6 tons and up to 25 tons), Backhoes, Road Tractor, Dozer up to D-5,
Pressure Digger- wheeled or tracked, all Tension wire Stringing equipment.

Operator "C"

Trench, Backhoe, Riding type vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton & below), Skid Steer Loaders, Material Handler.

*All Operators of cranes 45 ton or larger shall be paid the journeyman rate of pay

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA, ATHENS,
AUGLAIZE, BELMONT, BROWN, BUTLER,
CARROLL, CHAMPAIGN, CLARK,
CLERMONT, CLINTON, COLUMBIANA,
COSHOCOTON, CRAWFORD, CUYAHOGA,
DARKE, DELAWARE, FAIRFIELD, FAYETTE,
FRANKLIN, GALLIA, GEAUGA, GREENE,
GUERNSEY, HAMILTON, HARRISON,
HIGHLAND, HOCKING, HOLMES, JACKSON,
JEFFERSON, KNOX, LAKE, LAWRENCE,
LICKING, LOGAN, LORAIN, MADISON,
MAHONING, MARION, MEDINA, MEIGS,
MERCER, MIAMI, MONROE, MONTGOMERY,
MORGAN, MORROW, MUSKINGUM, NOBLE,

PERRY, PICKAWAY, PIKE, PORTAGE,
PREBLE, RICHLAND, ROSS, SCIOTO,
SHELBY, STARK, SUMMIT, TRUMBULL,
TUSCARAWAS, UNION, VINTON, WARREN,
WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

Heli - Arc Welding will be paid \$.30 above Journeyman rate. Additional compensation of 10% over the Journeyman Lineman and Journeyman Technician for performing work on structures outside of buildings such as water towers, smoke stacks, radio and television towers, more than 75' above the ground.

Name of Union: Electrical Local 71 Outside Utility Power

Craft : Lineman Effective Date : 05/23/2012 Last Posted : 05/23/2012

[illegible]

1st 1000 hrs	60.00	\$20.51	\$5.00	\$0.62	\$0.21	\$0.00	\$4.10	\$0.00	\$0.00	\$0.00	\$30.44	\$40.69
2nd 1000 hrs	65.00	\$22.22	\$5.00	\$0.67	\$0.22	\$0.00	\$4.44	\$0.00	\$0.00	\$0.00	\$32.55	\$43.66
3rd 1000 hrs	70.00	\$23.93	\$5.00	\$0.72	\$0.24	\$0.00	\$4.79	\$0.00	\$0.00	\$0.00	\$34.68	\$46.64
4th 1000 hrs	75.00	\$25.63	\$5.00	\$0.77	\$0.26	\$0.00	\$5.13	\$0.00	\$0.00	\$0.00	\$36.80	\$49.61
5th 1000 hrs	80.00	\$27.34	\$5.00	\$0.82	\$0.27	\$0.00	\$5.47	\$0.00	\$0.00	\$0.00	\$38.90	\$52.58
6th 1000 hrs	85.00	\$29.05	\$5.00	\$0.87	\$0.29	\$0.00	\$5.81	\$0.00	\$0.00	\$0.00	\$41.02	\$55.55
7th 1000 hrs	90.00	\$30.76	\$5.00	\$0.92	\$0.31	\$0.00	\$6.15	\$0.00	\$0.00	\$0.00	\$43.14	\$58.52

Special Calculation Note :

Operator "A"

John Henry Rock Drill, D-6 (or equivalent) and above, Trackhoe Digger, (320 Track excavator),
Cranes (greater then 25 tons and less than 45 tons).

Operator "B"

Cranes (greater than 6 tons and up to 25 tons), Backhoes, Road Tractor, Dozer up to D-5,
Pressure Digger- wheeled or tracked, all Tension wire Stringing equipment.

Operator "C"

Trench, Backhoe, Riding type vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton & below), Skid Steer Loaders, Material Handler.

Ratio :

(1) Journeyman Lineman to (1) Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ASHTABULA, ATHENS,
AUGLAIZE, BELMONT, BROWN, BUTLER,
CARROLL, CHAMPAIGN, CLARK,
CLERMONT, CLINTON, COLUMBIANA,
COSHOCOTON, CRAWFORD, CUYAHOGA,
DARKE, DELAWARE, FAIRFIELD, FAYETTE,
FRANKLIN, GALLIA, GEAUGA, GREENE,
GUERNSEY, HAMILTON, HARRISON,
HIGHLAND, HOCKING, HOLMES, JACKSON,
JEFFERSON, KNOX, LAKE, LAWRENCE,
LICKING, LOGAN, LORAIN, MADISON,
MAHONING, MARION, MEDINA, MEIGS,
MERCER, MIAMI, MONROE, MONTGOMERY,
MORGAN, MORROW, MUSKINGUM, NOBLE,
PERRY, PICKAWAY, PIKE, PORTAGE,
PREBLE, RICHLAND, ROSS, SCIOTO,
SHELBY, STARK, SUMMIT, TRUMBULL,
TUSCARAWAS, UNION, VINTON, WARREN,
WASHINGTON, WAYNE

Special Jurisdictional Note :

Details :

Heli - Arc Welding will be paid \$.30 above Journeyman rate. Additional compensation of 10% over the Journeyman Lineman and Journeyman Technician for performing work on structures outside of buildings such as water towers, smoke stacks, radio and television towers, more than 75' above the ground.

Name of Union: Elevator Local 17

Details :

Name of Union: Glazier Local 181

Craft : Glazier Effective Date : 07/27/2011 Last Posted : 07/27/2011

[illegible]

Special Calculation Note : No special calculations for this classification.

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, ERIE*, GEAUGA,
HURON*, LAKE, LORAIN, MEDINA*,
PORTAGE*, SUMMIT*

Special Jurisdictional Note : Start at the intersection of Route 305 and the eastern boundary line of Portage County. Follow Route 305 west onto Route 82, follow Route 82 west to the intersection of Routes 82, 8 and 271, follow Route 271 south to Medina County line west to

Route 94, follow Route 94 south to Route 303, follow Route 303 west to Route 252, follow Route 252 south to Route 18, follow Route 18 west to Route 301, follow 301 south to Route 162, follow Route 162 west to Route 58, follow Route 58 south to the Ashland County line, follow the Ashland County line west and then north along the line to Route 18, west onto Route 20, follow Route 20 west to Route 4, follow Route 4 north to Lake Erie. Local 181 has the jurisdiction on all projects built on the property which borders on the above Routes and/or intersections, wherever a County line is the divider between Local 181 and another Union, the jurisdiction is only to the county line.

Details :

High Pay: All work is defined for the purpose of the agreement as being work which requires that the employee be supported by equipment that hangs from or suspends from the wall or roof of a building or structure. This work shall receive an additional \$1.25 per hour.

Name of Union: Glazier Local 181

[illegible]

Special Jurisdictional Note : Start at the intersection of Route 305 and the eastern boundary line of Portage County. Follow Route 305 west onto Route 82, follow Route 82 west to the

intersection of Routes 82,8 and 271, follow Route 271 south to Medina County line west to Route 94, follow Route 94 south to Route 303, follow Route 303 west to Route 252, follow Route 252 south to Route 18, follow Route 18 west to Route 301, follow 301 south to Route 162, follow Route 162 west to Route 58, follow Route 58 south to the Ashland County line, follow the Ashland County line west and then north along the line to Route 18, west onto Route 20, follow Route 20 west to Route 4, follow Route 4 north to Lake Erie. Local 181 has the jurisdiction on all projects built on the property which borders on the above Routes and/or intersections, wherever a County line is the divider between Local 181 and another Union, the jurisdiction is only to the county line.

Details :

High Pay: All work is defined for the purpose of the agreement as being work which requires that the employee be supported by equipment that hangs from or suspends from the wall or roof of a building or structure. This work shall receive an additional \$1.25 per hour.

Name of Union: Ironworker Local 17

Jurisdiction (* denotes special jurisdictional note) :

4 Journeymen to 1 Apprentice on Structural Work ASHTABULA, CUYAHOGA, ERIE, GEAUGA,
 3 Journeymen to 1 Apprentice on Rod Work HURON, LAKE, LORAIN, MEDINA, PORTAGE,
 2 Journeymen to 1 Apprentice on ALL Finishing, SUMMIT
 Steel Sash, Stairway and Ornamental Work

Special Jurisdictional Note : West Boundary Line :Sandusky, Ohio: Boundary lines between Local 17 & Local 55 are as follows: Columbus Ave north to Sandusky Bay (and/or Lake Erie): Columbus Ave South to present Route 4: Route 4 South to present Route 99: from Route 99 south to old Route 224-all territory to the west of the boundary line to be the jurisdiction of Local 55.All territory to the East of the boundary line to be the jurisdiction of Local 17.Kelly's Island to be within jurisdiction of Local 17.All bridges,tunnels,viaducts,etc, relative to these boundary lines shall be the jurisdiction of Local 17

South Boundary Line:Canton, Ohio: Boundary lines between Local 17 & Local 550 are as follows: All territory north of old Route 224 line to be the jurisdiction of Local 17. All bridges,tunnels,viaducts,signs,etc, relative to old Route 224 line to be within the jurisdiction of Local 17. All territory south of old Route 224 line is to be within the jurisdiction of Local 550, except for everything within the city limits of Barberton which shall be the jurisdiction of Local 17.

Reading from West to East: Route old 224 line: Greenwich Ave-Wooster Road or East Ave. Route old 224 line: New 224 line including Cloverleaf: East Waterloo Road: New 224 line-Attwood Road-Old 224. This will be considered to be the old Route 224 line,except for the city limits of Barberton, Ohio which shall be the jurisdiction of Local 17

Southeast Boundary : Between local 17 and Local 207 are as follows: West of a line from Middlefield to Shalersville to Deerfield, shall be under the jurisdiction of local 17. East of a line from Middlefield, to Shalersville to Deerfield, shall be under the jurisdiction of Local 207.

Local 17 & Local 207 have agreed that the Ohio County of Ashtabula shall be as follows: Everything North of Route 6, starting at the Geauga County line, proceeding east to State Route 45, shall be under the jurisdiction of Local 17. Everything South, starting at the Geauga County line shall be under local 207.

North Boundary: The East boundary line and the West boundary line continuing North halfway across Lake Erie.

Details :

Name of Union: Labor Hwy 1B

Craft : Laborer Group 1 Effective Date : 05/01/2012 Last Posted : 04/25/2012

Special Calculation Note : Watchman have no Apprentices.

Jurisdiction (* denotes special jurisdictional note) :
CUYAHOGA, GEAUGA

Special Jurisdictional Note : Hod Carriers and Common Laborers - Heavy, Highway, Sewer, Waterworks, Utility, Airport, Railroad, Industrial and Building Site

Details :**Group 1**

Laborer (Construction); Plant Laborer or Yardman, Right-of-way Laborer, Landscape Laborer, Highway Lighting Worker, Signalization Worker, (Swimming) Pool Construction Laborer, Utility Man, Bridge Man, Handyman, Joint Setter, Flagperson, Carpenter Helper, Waterproofing Laborer, Slurry Seal, Seal Coating, Surface Treatment or Road Mix Laborer, Riprap Laborer & Grouter, Asphalt Laborer, Dump Man (batch trucks), Guardrail & Fence Installer, Mesh Handler & Placer, Concrete Curing Applicator, Scaffold Erector, Sign Installer, Hazardous Waste (level D), Diver Helper, Zone Person and Traffic Control.

Group 2

Asphalt Raker, Screwman or Paver, Concrete Puddler, Kettle Man (pipeline), All Machine-Driven Tools (Gas, Electric, Air), Mason Tender, Brick Paver, Mortar Mixer, Skid Steer, Sheeting & Shoring Person, Surface Grinder Person, Screedperson, Water Blast, Hand Held Wand, Power Buggy or Power Wheelbarrow, Paint Striper, Plastic fusing Machine Operator, Rodding Machine Operator, Pug Mill Operator, Operator of All Vacuum Devices Wet or Dry, Handling of all Pumps 4 inches and under (gas, air or electric), Bottom Person, Welder Helper (pipeline), Concrete Saw Person, Cutting with Burning Torch, Pipe Layer, Hand Spiker (railroad), Underground Person (working in sewer and waterline, cleaning, repairing and reconditioning). Tunnel Laborer (without air), Caisson, Cofferdam (below 25 feet deep), Air Track and Wagon Drill, Sandblaster Nozzle Person, Hazardous Waste (level B), Lead Abatement, Hazardous Waste (level C)

Group 3

Blast and Powder Person, Muckers (with miners), Wrencher (mechanical joints & utility pipeline), Yarnier, Top Lander, Hazardous Waste (level A), Concrete Specialist, Curb Setter and Cutter, Concrete Crew in Tunnels. Utility pipeline Tappers, Waterline, Caulker, Signal Person, Grade Checker

Group 4

Miner, Welder, Guniting Nozzle Person

Name of Union: Labor Hwy 5

Craft : Laborer Group 1 Effective Date : 05/01/2012 Last Posted : 05/25/2012

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Jurisdiction (* denotes special jurisdictional note) :
CUYAHOGA, GEAUGA

Special Jurisdictional Note : Sewage Plant, Waste Plant, Water Treatment Facilities Construction, Pumping Stations, Ethanol Plant Construction, and Municipal, County & State Facility Pool Construction, (except packaged plants).
All work in construction of pumping stations, waste and sewage disposal plants, incinerator plants, water treatment plants, filtration plants and solid waste disposal plants, ethanol plants & swimming pools at municipal, county & state facilities.

Details :

Laborer Heavy Highway 5 for Cuyahoga and Geauga Counties provides wage rates for ONLY the following work: All work in laying and installation of process piping both outside and within sewage filtration, water treatment plants, and ethanol plants, including mechanical and pressure pipe within. All work in construction of swimming pools, including but not limited to, the installation and demolition of water filtration systems, at municipal, county & state facilities. Construction of pumping stations, waste and sewage disposal plants, incinerator plants, water treatment plants, filtration plants and solid waste disposal.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Labor Local 310

Change # : LCN01-2011mmLabor310

Craft : Laborer Effective Date : 06/01/2011 Last Posted : 06/01/2011

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Laborer Group 1	\$24.53		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$39.08	\$51.35
Group 2	\$25.01		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$39.56	\$52.07
Group 3	\$24.78		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$39.33	\$51.72
Group 4	\$21.43		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$35.98	\$46.70
Group 5	\$18.93		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$33.48	\$42.95
Group 6	\$21.08		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$35.63	\$46.17
Group 7	\$25.03		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$39.58	\$52.10
Group 8	\$25.18		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$39.73	\$52.32
Group 9	\$19.38		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$33.93	\$43.62
Group 10	\$15.38		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$29.93	\$37.62
Group 11	\$24.68		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$39.23	\$51.57
Group 12	\$24.93		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$39.48	\$51.95
Group 13	\$26.03		\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$40.58	\$53.60
Apprentice	Percent											
1-1000 hours	60.00	\$14.72	\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$29.27	\$36.63
1001-2000 hours	70.01	\$17.17	\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$31.72	\$40.31
2001-3000 hours	80.00	\$19.62	\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$34.17	\$43.99
3001-4000 hours	90.00	\$22.08	\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$36.63	\$47.67
4001 plus	100.00	\$24.53	\$3.75	\$7.70	\$0.10	\$0.00	\$2.60	\$0.40			\$39.08	\$51.35

Special Calculation Note : Other is a Supplemental Unemployment Benefit (SUB).

Ratio :

5 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :
 CUYAHOGA, GEauga, LAKE

Special Jurisdictional Note :

Details :

Group 1 - Building and construction Laborers and Tenders; Asbestos Removal - hazardous materials; unloading of furniture and fixtures.

Group 2 - Guniting Operating (Machines of all type).

Group 3 - Laborers on swinging scaffolds; air track and wagon drill.

Group 4 - Drywall stocking and handling.

Group 5 - General Landscaping.

Group 6 - Final Clean-up (must perform clean-up duties for entire work shift, and excludes demolition work).

Group 7 - Blasters, Shooters, Caissons, Well Cylinder, Cofferdams, Mine Workers without air, acid brick tenders.

Group 8 - Top man on free standing radial stack; bellman and bottom man in blast furnace and stove.

Group 9 - Sewer jet.

Group 10 - Heat tender.

Group 11 - Firebrick.

Group 12 - Mason tender handling carbon block and bottom block for blast furnace stoves, stacks etc.

Group 13 - Lansing Burners.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Operating Engineers - Building Local 18 - Zone I (A)

Change # : OCR01-2011kpLoc18

Craft : Operating Engineer Effective Date : 05/11/2011 Last Posted : 05/11/2011

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Operator Class 1	\$33.58		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$46.38	\$63.17
Class 2	\$33.43		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$46.23	\$62.94
Class 3	\$31.98		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$44.78	\$60.77
Class 4	\$31.20		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$44.00	\$59.60
Class 5	\$30.88		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$43.68	\$59.12
Class 6	\$23.80		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$36.60	\$48.50
Class 7	\$34.08		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$46.88	\$63.92
Class 8	\$34.33		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$47.13	\$64.29
Class 9	\$34.58		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$47.38	\$64.67
Apprentice	Percent											
1st Year	59.75	\$20.06	\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$32.86	\$42.90
2nd Year	69.69	\$23.40	\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$36.20	\$47.90
3rd Year	79.62	\$26.74	\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$39.54	\$52.90
4th Year	89.60	\$30.09	\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04			\$42.89	\$57.93

Special Calculation Note : Other: Education & Safety Fund is \$0.04 per hour.

Ratio :

For every (5) Operating Engineer Journeymen employed by the company ,there may be employed (1) Registered Apprentice. On jobs where maintenance engineers are to be employed, for every (1) Class 1 Mechanics there may be (1) Mechanic Trainee & so fourth. Mechanic Trainee rate is a percentage of Class 1 rate.

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE, LORAIN, MEDINA

Special Jurisdictional Note :**Details :**

Note: There will be a 10% increase for the apprentices on top of the percentages listed above provided they are operating mobile equipment. Mechanic Trainees will receive 10% increase if required to have CDL

Class 1 - "Boiler Operators, Compressor Operators, Hydraulic Pumps & Power Pacs when mounted on a crane or regardless of where said equipment is mounted (piggy-back operator)" Boom Trucks (all types); Cableways Cherry Pickers; Combination - Concrete Mixers & Towers; Concrete Pumps; Cranes (all types) Derricks (all types); Draglines Dredges (dipper, clam or suction) 3-man crew; Elevating Graders or Euclid Loaders; Floating Equipment; Gradalls; Helicopter Operators; hoisting building materials; Helicopter Winch Operators, Hoisting building materials; Hoes (All types) Hoists (with two or more drums in use); Lift Slab or Panel Jack Operators; Locomotives (all types); Maintenance Engineers (Mechanic and/or Welder); Mixers, paving (multiple drum); Mobile Concrete Pumps, with booms, Panelboards, (all types on site); Pile Drivers; Power Shovels; Rotary Drills (all), used on caissons work, wells (all types), Geothermal work and sub-structure work; Side Booms; Slip Form Pavers; Straddle Carriers (Building Construction on site); Tug Boats. Rough Terrain Fork-lift with Winch/Hoist (when used as a crane), Compact Cranes (all types), track or rubber over 4,000 pound capacity, self-erecting cranes: stationary, track or truck (all configurations) bucket trench machines (over 24" wide). A Frames, Robotics Equipment Operator/Mechanic. "Boiler Operators, Compressor Operators, Hydraulic Pumps & Power Pacs when mounted on a crane or regardless of where said equipment is mounted (piggy-back operator)"

Class 2 - Asphalt Pavers; Bulldozers; CMI type Equipment;; Endloaders; Kolman-type Loaders (Dirt Loading); Lead Greasemen; Mucking Machines; Power Graders; Power Scoops; Power Scrapers; Push Cats; Vermeer Type Concrete Saw, All rotomills. Horizontal Directional Drill Locator, Horizontal Directional Drill Operator, Instrument Man.

Class 3 - Air Compressors, Pressurizing Shafts or Tunnels; All Asphalt Rollers; Power Boilers (over 15 lbs pressure); Fork Lifts ; Hoists (with one drum); House Elevators (except those automatic call button controlled); Man Lifts; Mud Jacks; Pressure Grouting; Pump Operators (installing or operating Well Points or other types of Dewatering Systems); Trenchers (24" and under); Utility Operators. Laser Screeds and like equipment, Hydro Excavator (all types C rate) (F rate if a second person is needed) Helper rate, Portable Hydraulic Gantry (lift system C Rate) (F rate if a second person is needed).

Class 4 - Compressors, on building construction; Conveyors, used for handling building materials; Mixers, one bag capacity (side loader); Mixers, capacity more than one bag; Generators: Guniting Machines; Pavement Breakers (hydraulic or cable); Post Drivers; Post Hole Diggers; Road Widening Trenchers; Rollers; Welder Operators.

Class 5 - Backfillers and Tampers, Batch Plants, Bar and Joint Installing Machines, Bull Floats, Burlap and Curing Machines, Cleaning Machine Operator (decontamination included) Clefplanes, Concrete Spreading Machines, Crushers, Deckhands, Drum Fireman (asphalt), Farm-type, Tractor, pulling attachments, Finishing Machines, Forklifts (masonry work only) Form Trenchers, High Pressure Pumps (over 1/2" discharge) Hydro Seeders, Pumps (4" and over discharge), provided it is not part of a dewatering system discharged into a common header, Self-Propelled Power Spreaders, Self-Propelled Sub Graders, Submersible Pump (4" and over discharge), provided it is not part of a dewatering system discharged into a common header, Tire Repairman Tractors, pulling sheepfoot rollers or graders, Vibratory Compactors with integral power.

Class 6 - Power Boilers (less than 15 lbs. pressure); Inboard/outboard Motor Boat Launches; Light Plant Operators; Power Driven Heaters (oil fired); Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalmen, Submersible Pumps (under 4 inch discharge). and Allen Screed Concrete Paver, Fueling & greasing (plus \$3.00), compact cranes: track or rubber under 4,000 pounds. Vac Alls, Apprentice/Helpers, Oiler, Barrier Moving Machines (additinal duty, paid same rate) Bobcat-type and/or Skid Steer Loader with any and all attachments, Geodimeter, Grade Checker Grinders (all), Planners (all types), Saw (concrete vermeer type). Rob Man. Backfillers and Tampers, Batch Plants, Bar and Joint Installing Machines, Bull Floats, Burlap and Curing Machines, Cleaning Machine Operator (decontamination included) Clefplanes, Concrete Spreading Machines, Crushers, Deckhands, Drum Fireman (asphalt), Farm-type Tractor, pulling attachments, Finishing Machines, Forklifts, (masonry work only) Form Trenchers, High Pressure Pumps (over 1/2" discharge) Hydro Seeders, Pumps (4" and over discharge), provided it is not part of a de-watering system discharged into a common header, Self-Propelled Power Spreaders, Self-Propelled Sub-Graders, Submersible Pumps (4" and over discharge), provided it is not part of a dewatering system discharged into a common header, Tire Repairmen Tractors, pulling sheepfoot rollers or graders, Vibratory Compactors with integral power.

Class 7 - Master Mechanic

Class 8 - Boom & Jib 150' - 180 feet and over

Class 9 - Boom & Jib 200' and over

Prevailing Wage Rate

Skilled Crafts

Name of Union: Operating Engineers - HevHwy I

Change # : LCN01-2012jcLoc18hevhwyl

Craft : Operating Engineer Effective Date : 05/01/2012 Last Posted : 04/25/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Operator Class 1	\$32.28		\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$45.33	\$61.47
Class 2	\$32.18		\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$45.23	\$61.32
Class 3	\$31.14		\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$44.19	\$59.76
Class 4	\$29.92		\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$42.97	\$57.93
Class 5	\$24.63		\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$37.68	\$50.00
Class 6	\$32.53		\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$45.58	\$61.85
Class 7	\$32.53		\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$45.58	\$61.85
Class 8	\$32.78		\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$45.83	\$62.22
Great Lakes Floating Agreement												
Class 1	\$36.65		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$49.45	\$67.77
Class 2A	\$35.15		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$47.95	\$65.52
Class 2B	\$35.15		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$47.95	\$65.52
Class 3	\$31.25		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$44.05	\$59.67
Class 4	\$25.90		\$6.66	\$5.50	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$38.70	\$51.65
Apprentice	Percent											
1st Year	50.00	\$16.14	\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$29.19	\$37.26
2nd Year	60.00	\$19.37	\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$32.42	\$42.10
3rd Year	70.00	\$22.60	\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$35.65	\$46.94
4th Year	80.00	\$25.82	\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$38.87	\$51.79
Field Mech Trainee												
1st year	49.85	\$16.09	\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$29.14	\$37.19
2nd year	59.80	\$19.30	\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$32.35	\$42.01
3rd year	69.80	\$22.53	\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$35.58	\$46.85
4th year	79.73	\$25.74	\$6.66	\$5.75	\$0.60	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$38.79	\$51.66

Special Calculation Note : Other: Education & Safety Fund is \$0.04 per hour.

Ratio :

For every (5) Operating Engineer Journeymen employed by the company, there may be employed (1) Registered Apprentice. An apprentice, while employed as part of a crew per Article VIII paragraph 65, will not be subject the apprenticeship ratios in this collective bargaining agreement. On jobs where maintenance engineers are to be employed, for every (2) Class 2 Mechanics there may be (1) Mechanic Trainee & so fourth. Mechanic Trainee rate is a percentage of Class 2 rate.

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, SUMMIT

Special Jurisdictional Note :**Details :**

**Apprentices will receive a 10% increase on top of the percentages listed above provided they are operating mobile equipment. Mechanic Trainees will receive 10% if required to have a CDL.

Class 1 - Air Compressors on Steel Erection; Asphalt Plant Engineers (Cleveland District Only); Barrier Moving Machine; Boiler Operators, Compressor Operators, or Generators, when mounted on a rig; Boom Trucks (all types); Cableways; Cherry Pickers; Combination- Concrete mixers & Towers; Concrete Pumps; Concrete Plants (over 4 yd capacity); Cranes (all types); Derricks (all types); Draglines; Elevating Graders or Euclid Loaders; Gradalls; Helicopter Crew (Operator- hoist or winch); Hoes (all types); Hoisting Engines; Hoisting Engines, on shaft or tunnel work; Hydraulic Gantry (lifting system); Locomotives (standard guage); Maintenance Operators (class A); Mixers, paving (single or double drum); Piledriving Machines (all types); Power Shovels, Prentice Loader; Quad 9 (double pusher); Rail Tamper (with automatic lifting and aligning device); Refrigerating Machines (freezer operation); Rotary Drills, on caisson work; Side Booms; Slip Form Pavers; Tower Dericks; Trench Machines; Truck Mounted Concrete Pumps; Tug Boats; Tunnel Machines and /or Mining Machines; Wheel Excavators; Industrial-type tractors; Jet Engine - Dryer (D8 or D9) Diesel Tractors Mucking Machines; Multiple Scrapers; Tree Shreddes. Rough Terrain Fork-lift with Winch/Hoist; Compact Cranes, track or rubber over 4,000 pound capacity, self-erecting cranes: stationary, track or truck (all configurations) bucket trench machines (over 24 inches wide).

Class 2 - Asphalt Pavers; Automatic Subgrade Machines, self-propelled (CMI-type); Bobcat-type and /or skid steer loader with hoe attachment greater than 7000 lbs.; Boring Machine Operators (more than 48 inches); Bulldozers; ;Endloaders; Hydro Milling Machine; Kolman-type Loaders (production type-dirt); Lead Greasemen; Maintenance Operators, Class B (Portage and Summit Counties only); Pettibone-Rail Equipment; Power Graders; Power Scrapers; Push Cats; Lighting and Traffic Signal Installation Equipment includes all groups or classifications; Trench Machines (24inch wide and under); Vermeer Type Concrete saw. Material Transfer Equipment (Shuttle buggy) Asphalt All rotomills, grinders and planers of all types. Horizontal Directional Drill (Over 50,000 ft.lbs.thrust and over).

Class 3 - A-Frames; Air Compressors, on tunnel work (low Pressure); All Asphalt Rollers; Asphalt Plant Engineers (Portage and Summit Counties only); Bobcat-type and/or skid steer loader with or without attachments; Power Boilers (15 lbs pressure and over); Highway Drills (all types); Pump Operators (installing or operating well Points); Pumps (4 inch and over discharge); Railroad Tie Insertter/Remover; Rotovator (lime-soil Stabilizer); Switch & Tie Tampers (without lifting and aligning device);

Locomotives (narrow gage); Mixers, concrete (more than one bag capacity); Mixers, one bag capacity (side loader); Utilities Operators, (small equipment); Welding Machines and Generators; Material hoist/elevators. Articulating/straight bed end dumps if assigned (minus \$4.00 per hour)

Class 4 - Ballast Re-loocator; Backfillers and Tampers; Batch Plant Operators; Bar and Joint Installing Machines; Boring Machine Operators (48 inch or less); Bull Floats; Burlap and Curing Machines; Concrete Plants (capacity 4 yd and under); Conveyors (highway); Concrete Saws (multiple); Crushers; Deckhands; Farm type tractors, with attachments (highway); Finishing Machines; Hydro Hammers; Hydro Seeders; Pavement Breakers (hydraulic or cable); Plant Mixers; Post Drivers; Post Hole Diggers; Power Brush Burners; Power Form Handling Equipment; Firemen, Floating Equipment (all types); Fork Lifts (highway), except masonry; Form Trenchers; Road Widening Trenchers; Rollers (brick, grade, macadam); Self-Propelled Power Spreaders; Self-Propelled Sub-Graders; Tractors, pulling sheepsfoot rollers or graders; Steam Firemen; Vibratory Compactors, with integral power.

Class 5 - Compressors (portable, Sewer, Heavy and Highway); Generators; Inboard-Outboard Motor Boat Launches; Masonry Fork Lifts; Oilers/Helpers; Power Driven Heaters (oil fired); Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalmen; Drum Fireman (in Asphalt Plant); Oil Heaters (Asphalt Plant); Tire Repairmen; VAC/ALLS; Fueling and greasing (plus \$3.00), compact cranes; track or rubber under 4,000 pounds.

Class 6 - Master Mechanic

Class 7 - Crane Boom 150ft.- 180ft

Class 8 - Crane Boom over 180 ft.

GREAT LAKES FLOATING AGREEMENT

Class 1 -Diver,Wet Tender,Engineer,(hyd.Dredge), Craft Foreman (Master Mechanic)

Class 2A - Crane Backhoe Operator,Mechanic/Welder,Assistant Engineer (Hyd. Dredge), Leverman (Hyd Dredge) Diver Tender, Tug Operator (Tug 70T and over)

Class 2B - Friction Crane, Lattice Boom, any Crane Certification

Class 3-Maintenance of Crane (over 50T capacity) or Backhoe (115,000 lbs or more) Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock Scow.

Class 4 - Deck Equipment Operator, (Machineryman/Fireman)(4 equipment Units or more), Deck Hand, Deck Tug Engineer, Crane Maintenance, 50T and under/Backhoe 115,000lbs or less, Assistant Tug Operator, Off Road Truck,

Name of Union: Painter Local 505

[illegible]

Details :

Name of Union: Painter Local 639 (A) Sign

Craft : Painter Effective Date : 03/06/2009 Last Posted : 03/06/2009

[illegible]

Fabricator Vinyl Application

1000 hrs 50% plus (\$4.46 h&w)+(\$1.00 pension)+(\$1.25 apprentice training) + vacation	\$0.99
2000 hrs 55% plus (\$4.46 h&w)+(\$1.00 pension)+(\$1.25 apprentice training) + vacation	\$0.37
3000 hrs 65% plus (\$4.46 h&w)+(\$1.00 pension)+(\$1.25 apprentice training) + vacation	\$0.37
4000 hrs 50% plus (\$4.46 h&w)+(\$1.00 pension)+(\$1.25 apprentice training) + vacation	\$0.37
5000 hrs 70% plus (\$4.46 h&w)+(\$1.00 pension)+(\$1.25 apprentice training) + vacation	\$0.37

6000 hrs 85% plus (\$4.46 h&w)+(\$1.00 pension)+(\$0.25 apprentice training) + vacation \$0.37
7000 hrs 90% plus (\$4.46 h&w)+(\$1.00 pension)+(\$0.25 apprentice training) + vacation \$0.37

Ratio :

**Jurisdiction (* denotes special
jurisdictional note) :**

ASHLAND, ASHTABULA, CUYAHOGA, ERIE,
GEAUGA, LAKE, LORAIN, MEDINA,
PORTAGE, RICHLAND, STARK, SUMMIT

Special Jurisdictional Note :**Details :**

Sign and display work shall include but not limited: to the making and installation of all signs and servicing of the same, lettering and pictorial work of any kind, including vinyl signs and vinyl substrates and the preparing for the finishing of same, be it by hand, brush, roller, spray, mechanical or computer aided and by any other method or process pertaining to same: they shall have control of all branches, methods and processes of screen process work: tube bending and display work such as creating, building and finishing of all display matter and its related operations used for advertising purposes, including all lettering whether it be done by hand, mechanical or computer aided or by any other method or process pertaining to same: the construction, erection and maintenance of all billboards and all communication advertising.

Name of Union: Painter Local 639 (Cleveland Area) Sign

Craft : Painter Effective Date : 01/03/2006 Last Posted : 01/03/2006

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Jurisdiction (* denotes special jurisdictional note) :

ALLEN, ASHLAND, ASHTABULA, AUGLAIZE,
BELMONT, CARROLL, CHAMPAIGN,
COLUMBIANA, COSHOCTON, CRAWFORD,
CUYAHOGA, DEFIANCE, ERIE, FULTON,
GEAUGA, GUERNSEY, HANCOCK, HARDIN,
HARRISON, HENRY, HOLMES, HURON,
JEFFERSON, KNOX, LAKE, LOGAN, LORAIN,
LUCAS, MAHONING, MARION, MEDINA,
MERCER, MONROE, MORROW, NOBLE,
OTTAWA, PAULDING, PIKE, PORTAGE,

PUTNAM, RICHLAND, SANDUSKY, SENECA,
SHELBY, STARK, SUMMIT, TRUMBULL,
TUSCARAWAS, VAN WERT, WASHINGTON,
WAYNE, WILLIAMS, WOOD, WYANDOT

Special Jurisdictional Note :

Details :

Name of Union: Painter Local 707

Craft : Painter Effective Date : 05/02/2012 Last Posted : 05/02/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Brush Roll	\$26.79		\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$38.81	\$52.21
Paperhanger	\$26.79		\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$38.81	\$52.21
Sandblasting & Buffing	\$27.19		\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$39.21	\$52.81
Spray Painting	\$27.49		\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$39.51	\$53.25
REPAINT Brush Roll & Paperhanger	\$25.29		\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$37.31	\$49.96
REPAINT Sandblasting & Buffing	\$25.69		\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$37.71	\$50.56
REPAINT Spray Painting	\$25.99		\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$38.01	\$51.00
Apprentice - Painter	Percent											
1st 6 months	45.00	\$12.06	\$5.19	\$0.50	\$0.33	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.08	\$24.10
2nd 6 months	50.00	\$13.40	\$5.19	\$0.50	\$0.33	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$19.41	\$26.11
3rd 6 months	55.00	\$14.73	\$5.19	\$0.75	\$0.33	\$0.00	\$1.35	\$0.00	\$0.00	\$0.00	\$22.35	\$29.72
4th 6 months	60.00	\$16.07	\$5.19	\$0.75	\$0.33	\$0.00	\$1.47	\$0.00	\$0.00	\$0.00	\$23.81	\$31.85
5th 6 months	65.00	\$17.41	\$5.19	\$1.00	\$0.33	\$0.00	\$1.59	\$0.00	\$0.00	\$0.00	\$25.52	\$34.23
6th 6 months	70.00	\$18.75	\$5.19	\$1.00	\$0.33	\$0.00	\$1.72	\$0.00	\$0.00	\$0.00	\$26.99	\$36.37
7th 6 months	75.00	\$20.09	\$5.19	\$1.50	\$0.33	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$28.95	\$39.00

8th 6 months	80.00	\$21.43	\$5.19	\$1.50	\$0.33	\$0.00	\$1.96	\$0.00	\$0.00	\$0.00	\$30.41	\$41.13

Special Calculation Note : Apprentice pay based on percentage of above appropriate classification.

Ratio :

1 Apprentice to 1 Journeyman

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN, PORTAGE*, SUMMIT*

Special Jurisdictional Note : Portage & Summit North of the East-West Turnpike.

Details :

Application of Catalytic materials under class 3 hazardous per MSDS - .65 per hour above the Job Classification basic hourly rate.

Application of Catalytic materials under class 4 hazardous per MSDS - 1.00 per hour above the Job Classification basic hourly rate.

Name of Union: Painter Local 707 Industrial

Craft : Painter Effective Date : 05/02/2012 Last Posted : 05/02/2012

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Bridge Class 1	\$27.49	\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$39.51	\$53.25
Bridge Blaster	\$28.49	\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$40.51	\$54.75
Bridge Quality Control & Assurance, Flag Person, Equipment Operator, Boat Person, Driver Vacuum (Grit Reclamation Operator)	\$23.20	\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$35.22	\$46.82
Closed Steel Above 55 ft., Open Structural Tanks - Water Towers	\$27.49	\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$39.51	\$53.25
Fiberglass & Insulator Material	\$27.49	\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$39.51	\$53.25
Concrete Sealing	\$21.74	\$5.19	\$4.05	\$0.33	\$0.00	\$2.45	\$0.00	\$0.00	\$0.00	\$33.76	\$44.63
Apprentice - Painter	Percent										
1st 6	45.00	\$12.37	\$5.19	\$0.50	\$0.33	\$0.00	\$0.00	\$0.00	\$0.00	\$18.39	\$24.58

months												
2nd 6 months	50.00	\$13.75	\$5.19	\$0.50	\$0.33	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$19.76	\$26.64
3rd 6 months	55.00	\$15.12	\$5.19	\$0.75	\$0.33	\$0.00	\$1.35	\$0.00	\$0.00	\$0.00	\$22.74	\$30.30
4th 6 months	60.00	\$16.49	\$5.19	\$0.75	\$0.33	\$0.00	\$1.47	\$0.00	\$0.00	\$0.00	\$24.23	\$32.48
5th 6 months	65.00	\$17.87	\$5.19	\$1.00	\$0.33	\$0.00	\$1.59	\$0.00	\$0.00	\$0.00	\$25.98	\$34.91
6th 6 months	70.00	\$19.24	\$5.19	\$1.00	\$0.33	\$0.00	\$1.72	\$0.00	\$0.00	\$0.00	\$27.48	\$37.10
7th 6 months	75.00	\$20.62	\$5.19	\$1.50	\$0.33	\$0.00	\$1.84	\$0.00	\$0.00	\$0.00	\$29.48	\$39.79
8th 6 months	80.00	\$21.99	\$5.19	\$1.50	\$0.33	\$0.00	\$1.96	\$0.00	\$0.00	\$0.00	\$30.97	\$41.97

Special Calculation Note : Apprentice pay based on percentage of above appropriate classification.

Ratio :

1 Apprentice to 1 Journeyman

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN, PORTAGE*, SUMMIT*

Special Jurisdictional Note : Portage & Summit North of the East-West Turnpike.

Details :

Painter Bridge Class 1 is Defined as; Bridge Painter, Rigger, Containment Builder

Application of Catalytic materials under class 3 hazardous per MSDS - .65 per hour above the Job Classification basic hourly rate.

Application of Catalytic materials under class 4 hazardous per MSDS - 1.00 per hour above the Job Classification basic hourly rate.

* Concrete Sealing: on highway work, sealing of concrete surfaces, the treating and sealing of bridge decks, the painting and staining of concrete, including the abutments, barricades, noise barriers, lane dividers, etc.

Name of Union: Pipefitter Local 120

Craft : Sprinkler Fitter Effective Date : 05/01/2012 Last Posted : 04/25/2012

Special Calculation Note : OTHER IS :SUPPLEMENTAL UNEMPLOYMENT BENEFITS

Jurisdiction (* denotes special jurisdictional note) :

CUYAHOGA, GEAUGA, LAKE, LORAIN

- 1 - 2 Journeymen to 1 Apprentice per project
3 - 4 Journeymen to 2 Apprentices
5 - 8 Journeymen to 3 Apprentices

3 Journeymen to 1 Apprentice on jobs with
9 or more journeymen

Special Jurisdictional Note :

Details :

Details :
Sprinklerfitter duties shall include: installation, dismantling, maintenance, repairs, adjustments and corrections of all fire protection and extinguishing systems; consist of handling and installing of all piping and appurtenances pertaining to sprinkler equipment including both overhead and underground water mains, fire hydrants and hydrants mains, stand pipes, hose connections, tank heaters, air lines,

thermal systems and their connections; all operating and actuating lines and devices and their protective covering; all fire stopping of sprinkler piping systems; all tanks, pumps and city connections; fire protection systems using emulsify, spray, water fog, CO2 gas, foam and other fire control agents, settling of all fire pumps and tank filling pumps, air compressors and their connections; all work related to sprinkler inspections (included but not limited to: adjustments, maintenance, repair, testing, etc.)

Name of Union: Pipefitter Local 120

[illegible]

Under pipefitter duties shall include - steam and hot water heating boilers and related controls such as automatic feedwater and low water cut-offs, safety relief valves and gas trains; steam regulators, traps, steam valves, steam heaters, steam and hot water heating coils; feedwater lines to boilers, condensate pumps, condensate tanks and related piping to boilers, expansion tanks and controls on hot water heating

systems; refrigeration and air conditioning systems that are separate from one another and are connected through piping; install, piping for heating and cooling devices; piping, pumps and controls on the fluent water system in water treatment plants; hose cabinets and automatic fire sprinkler systems; underground water supply piping and devices; all fire stopping of piping systems; to operate a pipe cutting machine, to thread pipe by machine or hand dies; to do oxyacetylene and electric welding on iron and steel pipes when required; to perform other tasks when assigned.

3 Intermediate Servicemen to 1 Serviceman Trainee ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
Per Shop MEDINA*, SUMMIT*

Special Jurisdictional Note : Summit County - North of State Route 303 including work within the corporate limits of the City of Hudson, that portion of Medina County North of Route 18 and Smith Road and including work within the corporate limits of the City of Medina.

Details :

Work scope but not limited to: Mechanical Service and Maintenance work normally performed by contractors, either by contracts or emergency call basis, who are equipped to handle all work relating to evacuation, charging, start-up, inspection, operating, maintenance and service call necessary to keep mechanical system and controls of a refrigeration , air conditioning, heating and/or ventilation or any other newly installed, remodeled, revamped or redesigned mechanical system in operational order; all fire stopping and piping systems. Shall include but not limited to all maintaining, cleaning, adjusting, repairing, overhauling, starting and balancing of any system or component part thereof, regardless of size or location, including all other service and maintenance work assigned to the employer by the customer. Shall also be allowed to do the following installation work: All residential humidifiers and dehumidifiers, all window type units, all residential heating and cooling systems, excluding steam and hot water, and when a building is not new construction, all refrigeration systems up to 20 tons, split air conditioning systems up to 50 tons, and package or self-contained air conditioning units up to 50 tons.

Name of Union: Plasterer Local 80

Craft : Plaster Effective Date : 08/10/2011 Last Posted : 08/10/2011

Each employer shall use their best efforts to employ at least 1 certified apprentice in every

shop after his first Journeyman.

Special Jurisdictional Note :

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Plumber Local 55

Change # : LCN0-2012fbLoc55Plum

Craft : Plumber Effective Date : 10/24/2012 Last Posted : 10/24/2012

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Plumber	\$33.60	\$9.25	\$8.60	\$1.02	\$0.00	\$0.50	\$0.55	\$0.00	\$0.00	\$53.52	\$70.32
Yard Piping	\$22.42	\$6.70	\$1.50	\$0.46	\$0.00	\$0.50	\$0.55	\$0.00	\$0.00	\$32.13	\$43.34
Field Shopman	\$18.09	\$7.15	\$5.08	\$0.10	\$0.00	\$0.50	\$0.00	\$0.00	\$0.00	\$30.92	\$39.96
Field Shopman (after 5/1/1991)	\$11.22	\$5.91	\$1.80	\$0.10	\$0.00	\$0.50	\$0.00	\$0.00	\$0.00	\$19.53	\$25.14
Apprentice Initiated BEFORE 5/1/10											
1-6 Months	\$11.97	\$5.61	\$0.00	\$0.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.28	\$24.26
7-12 Months	\$15.03	\$5.53	\$0.16	\$0.75	\$0.00	\$0.00	\$0.55	\$0.00	\$0.00	\$22.02	\$29.53
2nd year	\$19.39	\$6.15	\$1.16	\$0.25	\$0.00	\$0.00	\$0.55	\$0.00	\$0.00	\$27.50	\$37.19
3rd year	\$21.55	\$6.20	\$2.16	\$0.85	\$0.00	\$0.50	\$0.55	\$0.00	\$0.00	\$31.81	\$42.59
4th year	\$24.20	\$6.26	\$2.16	\$0.85	\$0.00	\$0.50	\$0.55	\$0.00	\$0.00	\$34.52	\$46.62
5th year	\$26.45	\$6.73	\$2.16	\$0.85	\$0.00	\$0.50	\$0.55	\$0.00	\$0.00	\$37.24	\$50.46
Apprentice Initiated AFTER 5/1/10											
	Percent										
1-6 Months	35.62	\$11.97	\$5.61	\$0.00	\$0.70	\$0.00	\$0.00	\$0.00	\$0.00	\$18.28	\$24.26
7-12 Months	41.50	\$13.94	\$5.59	\$0.16	\$0.75	\$0.00	\$0.00	\$0.55	\$0.00	\$20.99	\$27.97
2nd year	41.56	\$13.96	\$6.15	\$1.66	\$0.85	\$0.00	\$0.50	\$0.55	\$0.00	\$23.67	\$30.66
3rd year	48.00	\$16.13	\$6.20	\$2.16	\$0.85	\$0.00	\$0.50	\$0.55	\$0.00	\$26.39	\$34.45
4th year	55.87	\$18.77	\$6.26	\$2.16	\$0.85	\$0.00	\$0.50	\$0.55	\$0.00	\$29.09	\$38.48
5th year	62.54	\$21.01	\$6.73	\$2.16	\$0.85	\$0.00	\$0.50	\$0.55	\$0.00	\$31.80	\$42.31

[illegible]

Ratio :

1 Apprentice for the first steadily employed journeyman, and thereafter 1 Apprentice for steadily employed journeymen

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
MEDINA*, SUMMIT*

Details :

Details :
The Plumber Shopman will have charge of the Employer's shop and warehouse containing plumbing and heating supplies and equipment, and perform such duties as are customarily required by a Plumber or a Plumber's Shopman, including casual delivery of tools and equipment necessary for installation of Plumbing and Heating facilities.

Name of Union: Roofer Local 44 Sheet 1

Craft : Roofer Effective Date : 07/05/2012 Last Posted : 07/05/2012

Special Calculation Note : For Apprentices Registered AFTER 6/1/09 See 2nd Sheet
No special calculations for this skilled craft wage rate are required at this time.

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, ERIE, GEAUGA,
LAKE, LORAIN*, SANDUSKY

Details :

\$0.04 for "Other" is Drug Testing.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Roofer Local 44 Sheet 2

Change # : LCN01-2012fbLoc44

Craft : Roofer Effective Date : 06/06/2012 Last Posted : 06/06/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Roofer	\$28.76		\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$44.82	\$59.20
Roofer Journeyman with 6351 hrs or more	\$28.76		\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$44.82	\$59.20
Waterproofers	\$28.76		\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$44.82	\$59.20
Applicant & Helper Trainees												
0 to 1851 hrs	\$12.75		\$0.25	\$0.25	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$13.46	\$19.83
1851 to 3350 hrs	\$15.82		\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$31.88	\$39.79
3351 to 4850 hrs	\$20.13		\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$36.19	\$46.26
4851 to 6350 hrs	\$23.01		\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$39.07	\$50.58
6351 hrs	\$25.88		\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$41.94	\$54.88
Apprentice Registered AFTER 6/1/09												
Percent												
Start of school	44.38	\$12.76	\$0.25	\$0.25	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$13.47	\$19.86
600 hrs worked/72 school hrs	45.00	\$12.94	\$0.25	\$0.25	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$13.65	\$20.12
1200 hrs worked/144 school hrs	50.00	\$14.38	\$0.25	\$0.25	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$15.09	\$22.28
1800 hrs worked/216 school hrs	55.00	\$15.82	\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$31.88	\$39.79
2400 hrs	60.00	\$17.26	\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$33.32	\$41.94

worked/ 288 school hrs												
3000 hrs worked/360 school hrs	70.00	\$20.13	\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$36.19	\$46.26
3600 hrs worked/432 school hrs	80.00	\$23.01	\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$39.07	\$50.57
4200 hrs worked/504 school hrs	90.00	\$25.88	\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$41.94	\$54.89
4800 hrs/576 school hrs	100.00	\$28.76	\$8.10	\$7.75	\$0.17	\$0.00	\$0.00	\$0.04	\$0.00	\$0.00	\$44.82	\$59.20

Special Calculation Note : For Apprentices Registered BEFORE 6/1/09 See 1st Sheet
There are no special calculations for this skilled craft wage rate are required at this time.

Ratio :

2 Journeymen to 1 Apprentice
1 Applicant/Helper Trainee

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, ERIE, GEAUGA,
LAKE, LORAIN*, SANDUSKY

Special Jurisdictional Note : Lorain (The Ohio Turnpike North)

Details :

\$0.04 for "Other" is for Drug Testing

Name of Union: Sheet Metal Local 33 (Cleveland)

Craft : Sheet Metal Worker Effective Date : 05/16/2012 Last Posted : 05/16/2012

Special Calculation Note : No special calculations for this skilled craft wage rate are required at this time.

Jurisdiction (* denotes special jurisdictional note) :

1 Journeyman to 1 Apprentice
2 Journeymen to 1 Apprentice
3 Journeymen to 2 Apprentices
4 Journeymen to 2 Apprentices
5 Journeymen to 3 Apprentices
6 Journeymen to 3 Apprentices

Details :

Name of Union: Sheet Metal Local 33 (Cleveland) Decking

Craft : Sheet Metal Worker Effective Date : 09/24/2009 Last Posted : 09/24/2009

[illegible]

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE

Special Jurisdictional Note :

Details :

Work but not limited to:Exterior application of manufactured and/or job site fabricated metal decking, siding and exterior appurtenances thereto. The erection of pre-engineered metal buildings, pre-manufactured gas stations and appurtenances thereto. The installation of metal roofs and appurtenances. The erection and/or job site fabrication of draft or fire curtains and appurtenances thereto.

Jurisdiction (* denotes special jurisdictional note) :
CUYAHOGA, LAKE, GEAUGA

Special Jurisdictional Note :

Details :

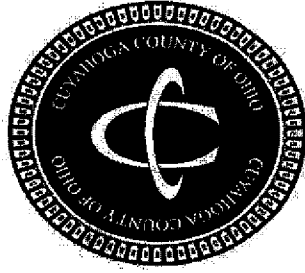
Ecuids include: Darts, Tank, Asphalt Spreaders, Low Boys, Carry-All Drivers, Tourna-Rockers, High-Lifts, Fork-Lifts, Extra Long Trailers and Semi-Tractor and Tri-Axle Trailer, Tandem Tractor and Tandem Trailer, Tandem Trailer and Tri-Axle Trailer, Tag Along Trailer, Expandable Trailers or towing requiring road permits. Ready-Mix (Agitator or non-agitator) Bulk Concrete Drivers, dry Batch Trucks, Articulated End Dump, Bus Drivers.

Holiday Pay = 7 holidays X (8 hours X BHR)/2080 hours per year.

This pay is only for those employee's who started driving before 1976.

To be eligible to receive holiday pay an employee must have worked at least one (1) day in the period fourteen (14) calendar days prior to the holiday and/or in the fourteen (14) day calendar period after the holiday.

SECTION 6
BIDDERS' MANUAL (SBE)



RQ27992

BIDDERS' MANUAL

Small Business Enterprise Program

For Construction, Services, Supplies and Professional Service Contracts

The goal of the Small Business Enterprise (SBE) Program is to support small businesses by creating positive partnerships in County contracting and other procurement opportunities. The Small Business Enterprise Program will achieve this goal by providing and supporting opportunities for small firms to grow and thereby compete effectively in the general environment for contracting opportunities.

THE SBE SUBCONTRACTOR PARTICIPATION GOAL
FOR THIS BID/PROPOSAL IS

5%

OF THE CONTRACT AWARD

Cuyahoga County
Is an Equal Opportunity Employer

SBE BIDDERS' MANUAL

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REQUIRED FORMS:

- Covenant of Non-Discrimination (SBE-1)
- SBE Subcontractor Participation Plan (SBE-2)
- Good Faith Effort Certification (SBE-3, 2 pages)
- Sample of Completed SBE forms (4 pages)

INSTRUCTIONS TO BIDDERS

I. Small Business Enterprise (SBE) Certification

Only those Small Business Enterprises certified by the Cuyahoga County 's Office of Procurement & Diversity (OPD) shall be eligible for the fulfillment of the SBE participation goal. SBE listings may be obtained from the Office of Procurement & Diversity. If a Small Business Enterprise elects to compete for county business without being certified as such, they may do so, but any bid submitted will not be counted towards fulfillment of the SBE participation goal.

An SBE desiring certification with OPD must complete the certification application. SBE applications may be obtained from the:

Office of Procurement & Diversity
County Administration Building, Room 110
1219 Ontario Street
Cleveland, Ohio 44113
(216) 443-7230
or downloaded at www.opd.cuyahogacounty.us

II. SBE Participation Goal

The SBE Participation goal can be achieved in the following manner(s):

1. A prime vendor subcontracts with one or more certified SBEs to meet or exceed the SBE goal;
2. A prime vendor subcontracts with one or more certified SBEs in an amount short of the SBE goal, but submits a complete Good Faith Effort (further described below);
3. A certified SBE who bids as a prime contractor subcontracts a portion of the work to another certified SBE. Certified SBEs bidding as prime contractors will receive a 20% credit towards the SBE participation goal. However, the certified SBE must secure additional certified SBE subcontractor participation and/or seek a waiver based on Good Faith Effort (further described below) for any remaining balance of the SBE goal.

III. Mandatory Bidding Requirements for Prime Contractors

In consideration of the right and privilege to submit a bid or proposal on construction projects and other contracts with Cuyahoga County, at the time of submitting a proposal or bid, each participant shall be required to present appropriate documentation. The documents described below must be completed and signed by each Participant before a proposal or bid can be considered responsive:

- 1) Covenant of Non-Discrimination: Each Participant must submit a duly executed and attested Covenant of Non-Discrimination (SBE-1, found in the attached Bidder's Manual). This written instrument shall contain promises, declarations and/or affirmations made by the Participant. The completed document must contain an original signature and date of signature.
- 2) SBE Subcontractor Participation Plan: Each Participant must submit a duly executed Subcontractor Participation Plan (SBE-2, found in the attached Bidder's Manual) for each SBE subcontractor proposed.

Copies and/or facsimiles of SBE-2 submitted with bids/proposals are acceptable BUT all required signatures must be dated as indicated. Also, please note the following:

- a) Certified SBEs who are bidding as prime contractors **MUST** complete and submit the top portion of Form SBE-2 to guarantee the 20% SBE credit.
- b) SBEs with multiple geographical locations shall enter the Cuyahoga County address and contact information on Form SBE-2.
- c) Prime vendors are **PROHIBITED** from using SBE(s) with whom the prime vendor has a familial relationship, joint or co-ownership, common partners, officers, or a shareholder relationship to meet the SBE Participation Goal. Hence, on Cuyahoga County projects/contracts, any portion of work subcontracted to a SBE vendor by a prime vendor that meets the above-mentioned criteria will **NOT** count towards the achievement of the established SBE Participation Goal.

Use of 2nd Tier Subcontractors: In the event that a subcontractor portions out work and utilizes the services of a sub-subcontractor or vendor, the prime contractor shall be required to report this use to OPD. For reporting purposes, the prime contractor shall report statistical data for the sub-subcontractor or sub-vendor, including race, gender, business size, area of specialization, dollar value, description of services or products purchased, and contact information. No SBE subcontractor will be permitted to subcontract more than 25% of their subcontract work (based on dollar value) without prior approval by OPD.

Other Information and Data: OPD may request additional information and data prior to a contract award. This information may include, but is not limited to, information regarding business ownership of all subcontractors to be utilized on the project, all of which shall reflect the race, gender, location, size, and area of specialization and structure of the identified businesses.

A PARTICIPANT'S FAILURE OR REFUSAL TO PROVIDE INFORMATION AND DATA REQUIRED BY THIS PROGRAM AND REQUESTED BY OPD SHALL SUBJECT THE PARTICIPANT TO HAVING A PROPOSAL OR BID DEEMED NON-RESPONSIVE.

IV. Good Faith Efforts

Aggressive "Good Faith Efforts" to include SBEs in the procurement process are required of all Participants. These Good Faith Efforts should be in addition to the Participant's regular and customary solicitation process of contact with potential subcontractors and/or vendors.

Written Notice to SBEs: To demonstrate good faith efforts, a Participant shall deliver written or electronic notice to potential, SBEs. SBEs should be contacted not less than one (1) week before the bid or proposal due date. Names, addresses, and telephone numbers for available SBEs may be obtained by contacting OPD or reviewing the database on the website at <http://opd.cuyahogacounty.us/>.

The written or electronic notice sent to potential subcontractors or vendors shall contain the following:

- (1) Sufficient information about the plans, specifications, and relevant terms and conditions of the solicitation. This should include information about the work which will be subcontracted or the goods which will be obtained from subcontractors and suppliers;

- (2) A contact person knowledgeable of the project scope documents, within the Participant's office, to answer questions about the conditions of the contract;
- (3) Information as to the Participant's bonding requirements; and
- (4) The deadline for price quotations.

Evaluation of Good Faith Efforts: In evaluating good faith efforts, OPD will determine whether the Participant has made reasonable good faith efforts to obtain SBE participation as part of its bid or proposal. OPD may evaluate not only the different kinds of efforts made by a Participant, but also the quantity and intensity of those efforts.

OPD will consider a completed Good Faith Effort Certification (SBE-3, 2 pages, found in the attached Bidder's Manual), as evidence of a Participant's good faith in trying to obtain SBE participation in a bid or proposal.

Required Documentation: To demonstrate good faith efforts, Participants shall keep detailed records of all correspondence and responses thereto, logs of all telephone calls made and received regarding the project or contract, confirmation receipts for fax transmissions, receipts from registered or certified mail, copies of advertisements in publications and other media, and other relevant papers required by this Program.

Good Faith Effort Certification: Participant must submit a completed Good Faith Certification (SBE-3, found in the attached Bidder's Manual) ONLY if the SBE Participation Goal is not met. Additional documentation demonstrating a good faith effort must accompany the checklist. The completed document must contain an original signature, notarizations, and date of signature.

V. Award of Contracts

Award of Contract: Proposals/ bids may be rejected and projects re-submitted for the sole purpose of attaining goals where no "good faith effort" has been demonstrated. Cuyahoga County reserves the right to determine the action to be taken on the contract if a goal is not met, including rejecting any or all bids or proposals. If an awarded contract is later amended for additional dollars, SBE subcontractor participation should still reflect the percentage of dollars originally contracted for.

When evaluating a bid to determine the lowest and best bid, the County may consider, in addition to all of the other factors set forth in the instructions to bidders, whether a bid is SBE compliant; provided, however, that such SBE compliance shall not be considered if the difference between the SBE-compliant bid and the lowest responsive bid is more than the price preference specified below.

Lowest Bid Received Range (\$)	Price Preference (%) & Limit	Price Preference (\$)
0 – 500,000	10%	0 – 50,000
500,001 – 1,000,000	10% up to max \$80,000 (10-8)	50,000 – 80,000
1,000,001 – 3,000,000	8% up to max \$210,000 (8-7)	80,000 – 210,000
3,000,001 – 5,000,000	7% up to max \$250,000 (7-5)	210,000 – 250,000
>5,000,000	\$250,000 maximum (≤5)	250,000 maximum

VI. Monitoring and Post-Award Reporting

Office of Procurement and Diversity Authorization to Monitor: OPD shall be authorized to collect from all Participants such data and information as is necessary to monitor this Program. This information may include information as to business ownership, supplier information, subcontractor information, all of which shall reflect the contract information, race, gender, business location, and size of the identified businesses.

OPD shall continuously monitor the participation of SBEs in the procurement of goods and services for Cuyahoga County. Such monitoring shall include, but is not necessarily limited to, a statistical analysis of each construction trade, business service, professional service and commodity to determine whether there is utilization of SBEs in a manner that is proportionate to the established goal.

OPD will provide written reports on an annual basis. OPD's report shall contain a summary of the purchases and contracts placed with SBEs for the period and the relative percentage to the total of purchases and contracts for that period and the size, quantity and quality of SBE involvement by dollar volume.

Participant's Post-Award Reporting: Participants who are awarded contracts must submit reports, during the course of, and at the end of the contract as requested by OPD. These reports shall summarize the number and dollar amounts of payments made during the term of the contract to subcontractors. The final report shall summarize the number and dollar amounts of payments made during the term of the contract to all subcontractors and shall reflect the SBE designation of the subcontractor if any. OPD reserves the right to audit a contract for SBE participation at his/her discretion during any phase of the project. An audit would include but not be limited to: on site reviews, desk reviews, requests for cancelled checks, requests for invoices, certified payroll reports, etc.

SBE Subcontractor Substitutions or Replacements: The prime contractor shall report any replacements or substitutions of the use of SBE subcontractors to OPD immediately. Prior approval by the Director of OPD is required for SBE substitutions/replacements. For reporting purposes, the prime contractor shall report to OPD statistical data pertaining to the new subcontractor, including race, gender, business size, area of specialization, and contact information on the SBE Subcontractor Participation Plan form (SBE-2).

OPD will require a Participant to make good faith efforts to replace a SBE that is terminated or has otherwise failed to complete its work on a contract with another SBE to the extent needed to meet the contract SBE Participation Goal. The Participant must notify OPD immediately, and in writing, of the SBE's inability or unwillingness to perform and provide reasonable documentation. The request should include at a minimum: the name of the SBE firm, the contact, the phone number, the scope of work initially assigned to the SBE firm, dollars paid to date, percent of scope completed, and the reason for the substitution request including documentation of the SBE's withdrawal.

The Participant will be given five (5) business days to find a SBE substitution if the request is granted. In this situation, the Participant will be required to obtain prior approval of the substitute SBE and to provide copies of SBE Subcontractor Participation Plan (SBE-2) or documentation of good faith efforts.

If the Participant fails or refuses to comply in the time specified, OPD may issue a recommendation to stop all or part of payment and/or work until satisfactory action has been taken. If the Participant still fails to comply, OPD may issue a recommendation of termination of the contract.

Contractors' Closeout Activity Reports: To further monitor SBE participation, closeout activity reports will be required from project prime contractors and prime consultants identifying activities of all subcontractors and sub-consultants. This report shall include all modifications/amendments/change orders and shall reflect the contact information, race, gender, business size, scope of work, and amount paid to each firm.

REQUIRED DOCUMENTS

The following forms regarding the Small Business Enterprise Program must be completed and submitted with bids/proposals:

COVENANT OF NON-DISCRIMINATION (SBE-1)

SBE SUBCONTRACTOR PARTICIPATION PLAN (SBE-2)

GOOD FAITH EFFORT CERTIFICATION (SBE-3, 2 PAGES)

COVENANT OF NON-DISCRIMINATION

SBE-1
RQ#27992

(MUST be completed and submitted with ALL bids or proposals)

Know All Men By These Presents, that I/we, (JOHN ALBERTY),
Name(s)
(PRESIDENT), (SPECIALIZED CONSTRUCTION INC.),
Title(s) Name of Company

(hereinafter "Company"), in consideration of the privilege to submit Bids/Proposals on contracts funded, in whole or in part, by Cuyahoga County, hereby consents, covenants and agrees as follows:

(1) No person shall be excluded from participation in, denied the benefit of, or otherwise discriminated against on the basis of race, color, national origin or gender in connection with any Bid/Proposal submitted to Cuyahoga County or the performance of any contract resulting from;

(2) That it is and shall be the policy of this Company to provide equal opportunity to all business persons seeking to contact or otherwise interested in contracting with this Company, including various eligible Small Business Enterprises (hereinafter "SBEs");

(3) In connection herewith, I/We acknowledge and warrant that this Company has been made aware of, understands and agrees to make a Good Faith Effort to solicit SBEs to do business with this Company;

(4) That the Covenant of Non-Discrimination as made and set forth herein shall be continuing in nature and shall remain in full force and effect without interruption;

(5) That the Covenant of Non-Discrimination as made and set forth herein shall be and are hereby deemed to be made a part of, and incorporated by reference into, any contract or portion thereof which this Company may hereafter obtain; and

(6) That the failure of this Company to satisfactorily discharge any of the Covenant of Non-Discrimination as made and set forth herein shall constitute a material breach of contract entitling Cuyahoga County to declare the contract in default and to exercise any and all applicable rights and remedies, including but not limited to, cancellation of the contract, termination of the contract, suspension and debarment from future contracting opportunities, and withholding and/or forfeiture of compensation due and owing on a contract.


(Original Signature of Company Representative Identified Above)

8-1-13
(Date)

SBE-2
RQ#27992**SBE SUBCONTRACTOR PARTICIPATION PLAN**
(MUST be submitted for EACH SBE Subcontractor Proposed)(A) TOTAL AMOUNT OF OVERALL CONTRACT BID/PROPOSAL \$ 524,500.00

CHECK ONE:

SERVICE CONTRACT ☒ SUPPLY CONTRACT ☐ CONSTRUCTION CONTRACT ☐BUSINESS NAME OF PRIME BIDDER SPECIALIZED CONSTRUCTION INC.ADDRESS 711 HARVARD AVECITY CUYAHOGA HTS. OH STATE OHIO ZIP CODE 44105TELEPHONE (216) 271-3363 E-MAIL JALBERTY@SPELON4.COMFIRM OWNED BY: ☒ MAJORITY ☐ MINORITY (SPECIFY: _____) ☐ FEMALE(B) AMOUNT TO BE
SUBCONTRACTED TO SBE:\$ 50,400.00PERCENT OF TOTAL
OVERALL CONTRACT
BID [(B)/(A)]:9.6 %SCOPE OF WORK PROVIDED BY SBE: 000T 614 TRAFFICPRIME BIDDER'S NAME JOHN ALBERTY TITLE PRESIDENT
(TYPE OR PRINT)PRIME BIDDER'S SIGNATURE X [Signature] 8-1-13
(DATE OF SIGNATURE)**SBE SUBCONTRACTOR TO BE UTILIZED**

(MUST BE CERTIFIED BY THE CUYAHOGA COUNTY OFFICE OF PROCUREMENT & DIVERSITY)

NAME OF SBE SUBCONTRACTOR C.A. AGRESTA CONSTRUCTION COADDRESS 4186 GREENVALE RD.CITY SO. EUCLID STATE OH. ZIP CODE 44121AREA CODE (216) TELEPHONE 382-2525

*****NOTE: SBE MUST BE A COUNTY CERTIFIED SBE*****

THE UNDERSIGNED HERewith AGREES TO SUBCONTRACT WITH THE ABOVE NAMED BIDDER FOR THE ABOVE SAID SERVICE(S) OR
SUPPLY(IES) TO BE FURNISHED TO THE COUNTY.SBE SUBCONTRACTOR'S NAME JOHN AGRESTA TITLE PRES.
(TYPE OR PRINT)SBE SUBCONTRACTOR'S SIGNATURE [Signature] 7/30/13
(DATE OF SIGNATURE)

GOOD FAITH EFFORT CERTIFICATION

(Must be submitted with bids NOT meeting SBE goal or requesting full or partial waiver)

Pursuant to the requirements for bidders under the SBE Program, and in consideration of the privilege to submit bids/proposals funded, in whole or in part, by Cuyahoga County,

I/We, (_____), (_____) of
(_____) (_____) (_____) of
Name(s) of Person(s) Signing Below Title(s) Company Name

attest that I/We have exercised the following good faith efforts in addition to my/our regular and customary solicitation process: (Check ALL that apply and complete as indicated)

- ☐ I/We are requesting a FULL/PARTIAL WAIVER of the SBE Participation Goal for the following reason(s): N/A
- ☐ I/We are a non-profit agency and are requesting a FULL WAIVER of the SBE Participation Goal.
- ☐ I/We have contacted OPD or website to obtain a list of SBEs appropriate to the bid/proposal.
- ☐ I/We delivered written notice to available certified SBEs for each potential subcontracting or supply category in the contract AND all potential subcontractors or vendors which requested information on the contract.
- ☐ I/We have provided all potential subcontractors or vendors with adequate information as to plans, specifications, relevant terms and conditions of the contract, bonding requirements, and the last date and time for receipt of price quotations.
- ☐ I/We have attended the pre-bid/proposal conference.
- ☐ I/We have provided a written explanation for rejection of any potential SBE subcontractor or vendor to OPD, where price competitiveness is not the reason for rejection.
- ☐ I/We have actively solicited, through sending letters, emails or initiating personal contact, SBEs in all feasible and appropriate categories providing subcontracting opportunities for the contract under consideration.
- ☐ I/We have utilized the services of available community organizations and associations, contractors' groups, and trade associations known to publicize contracting and procurement opportunities, for the purpose of obtaining assistance in the contacting and recruitment of SBEs for the Cuyahoga County contract under consideration.
- ☐ I/We have conducted discussions with interested SBEs in good faith, and provided the same willingness to assist SBEs as has been extended to any other similarly situated subcontractor.
- ☐ I/We have taken steps to ensure that all labor supervisors, superintendents, and other on-site supervisory personnel are aware of and carry out the obligation to maintain a non-discriminatory work environment, free of harassment, intimidation and coercion at all construction sites, offices and other facilities to which employees are assigned to work.

N/A

GOAL HAS BEEN MET

[Signature]

RQ#27992

If applicable, identify all SBEs contacted to participate that declined or were not chosen:

1. _____
 Name of Subcontractor/Vendor Address Phone

 Name of Contact Date of Offer to Participate Bid Amount Date Offer Declined

 Reasons Given for Declining NIA

2. _____
 Name of Subcontractor/Vendor Address Phone

 Name of Contact Date of Offer to Participate Bid Amount Date Offer Declined

 Reasons Given for Declining _____

3. _____
 Name of Subcontractor/Vendor Address Phone

 Name of Contact Date of Offer to Participate Bid Amount Date Offer Declined

 Reasons Given for Declining _____

(Make additional copies to extend list of SBE contacts if needed)

I/We affix my/our signature to this document to attest that I/We have exercised the above-indicated Good Faith Effort to promote SBE participation on the Bid/Proposal and Contract under consideration and to comply fully with the provisions of the Cuyahoga County Small Business Enterprise Program.

_____ Printed/Typed Name of Company Official	_____ Date
_____ Signature (Must be Original)	_____ Title of Company Official
_____ Full Company Name	_____ Mailing Address
_____ Area Code/ Phone Number	_____ City, State, Zip

Notary Public My Commission Expires _____

PLEASE NOTE: Failure to properly complete and submit SBE-1, SBE-2 and SBE-3 (if applicable) will result in bids/proposals being ruled non-responsive.

NIA GOALS HAVE BEEN MET
[Signature]

(OPD USE Only) Date Sent to Dept. 8-7-2013

Date Received from Dept. _____

OFFICE OF PROCUREMENT & DIVERSITY

TABULATION OF BIDS RECEIVED OVER \$25,000

BID DUE DATE:

August 1, 2013

REQUISITION NUMBER

CE - 13 - 27992

REQUISITIONING DEPT.

Public Works - Engineer

COMMODITY DESCRIPTION

Preventive Maintenance - Crack Seal

CONTRACT PERIOD

N/ANUMBER OF ITB'S
SENT/RETURNED6/2

ESTIMATE

\$672,500.00

SBE GOAL

5%

TO BE COMPLETED BY OPD AND USER DEPARTMENT (P=PROCUREMENT; D=DEPARTMENT)				TO BE COMPLETED BY CONTRACT COMPLIANCE OFFICER						
BIDDER'S NAME & ADDRESS	BID BOND / CHECK	P-Back Y/N	P-ADMINISTRATIVE D-TECHNICAL REVIEW	ACTUAL BID AMOUNT	SBE SUBCONTRACTOR NAME	CCBB	SBE PRIME	TOTAL SBE %	COMPLY Y/N	COMMENTS & INITIALS
Specialized Construction, Inc. 711 Harvard Avenue Cuyahoga Heights, Ohio 44105	Bid Bond, \$850,000.00 - State Automobile Mutual Insurance Company	N/A	P: YES - <u>OK</u> 8-6-2013 IG# 12-2573 VCF = ok NCA = ok PH= yes 2% match = yes <u>OK and recommended</u> <u>8-8-13</u>	<u>\$524,500.00</u>	<u>The C.A. Agrest Co. Const.</u> <u>#50,400.00 9.6%</u>	<u>N</u>	<u>N</u>	<u>9.6%</u>	<u>Y</u>	<u>gms</u> <u>Ans 8/7/13</u> <u>nm 8/7/13</u> <u>State Denise Flagler</u> <u>But did not submit H</u> <u>any SBE documents</u>
Scodeller Construction, Inc. 51722 Grand River Wixom, Michigan 48393 *If vendor is recommended for an award must register with the IG's office	Bid Bond, 100% - Fidelity & Deposit Company of Maryland	N/A	P: YES - <u>OK</u> 8-6-2013 IG# no* VCF = ok NCA = ok PH= yes 2% match = no	<u>\$614,000.00</u>		<u>N</u>	<u>N</u>	<u>0%</u>	<u>N</u>	<u>Ans 8/7/13</u> <u>nm 8/7/13</u>

CCBB: Low Non-CCBB Bid: \$ _____

+2% \$ _____

= \$ _____

Does CCBB apply? : Y (N)

(*Note: CCBB must meet all bid requirements)

* LOWEST BID REC'D \$ _____

RANGE OF LOWEST BID REC'D \$ _____

PRICE PREF % & \$ LIMIT: _____

MAX SBE PRICE PREF \$ _____

OBM APPROVAL

(If actual bid exceeds estimate)

DEPARTMENT

Paul H. Pfeiffer

8/12/13

LOW BIDDER NOTIFIED

☒ No ☐ Yes

Date:

DATE

DIRECTOR SIGNATURE

Bonita G. TEEUWEN

(Date Signed)

DIRECTOR NAME

Tab sheet with SBE
Updated 04/19/2013



(OPD USE Only) Date Sent to Dept: _____

Date Received from Dept: _____

OFFICE OF PROCUREMENT & DIVERSITY

TABULATION OF BIDS RECEIVED OVER \$25,000

BID DUE DATE:

August 1, 2013

REQUISITION NUMBER

CE - 13 - 27992

REQUISITIONING DEPT.

Public Works - Engineer

Preventive Maintenance - Crack

COMMODITY DESCRIPTION

Seal

CONTRACT PERIOD

N/A

NUMBER OF ITB'S
SENT/RETURNED

6/2

ESTIMATE

\$672,500.00

SBE GOAL

5%

TO BE COMPLETED BY CONTRACT COMPLIANCE OFFICER

TO BE COMPLETED BY OPD AND USER DEPARTMENT
(P=PROCUREMENT; D=DEPARTMENT)

BIDDER'S NAME & ADDRESS	BID BOND / CHECK	P-Back Y/N	P - ADMINISTRATIVE D-TECHNICAL REVIEW	ACTUAL BID AMOUNT	SBE SUBCONTRACTOR NAME	CCBB	SBE PRIME	TOTAL SBE %	COMPLY Y/N	COMMENTS & INITIALS
Crossroads Asphalt Recycling, Inc. 13421 Hawke Road Columbia Station, Ohio 44028	Bid Bond, \$732,500.00 - Western Surety Company	N/A	P: YES - ok 8-6-2013 IG# 12-1007 VCF = ok NCA = ok PH= yes 2% match = no	\$732,500.00	Caver Brothers #36,625.00 5%			5%	Y	Not ym 8/7/13 ym 8/7/13

CCBB: Low Non-CCBB Bid: \$ _____ +2% \$ _____ = \$ _____

Does CCBB apply? : Y (N) (*Note: CCBB must meet all bid requirements)

* LOWEST BID REC'D \$ _____

RANGE OF LOWEST BID REC'D \$ _____

PRICE PREF % & \$ LIMIT: _____

MAX SBE PRICE PREF \$ _____

OBM APPROVAL

(If actual bid exceeds estimate)

DEPARTMENT

DIRECTOR SIGNATURE

DEPARTMENT

DIRECTOR NAME

DATE

(Date Signed)

LOW BIDDER NOTIFIED

☐ No ☐ Yes

Date:

Tab sheet with SBE
Updated 04/19/2013

**** SAMPLE FORMS ****

SBE-1
RQ# XXXXX

COVENANT OF NON-DISCRIMINATION

(MUST be completed and submitted with ALL bids or proposals)

Know All Men By These Presents, that I/we, (John Doe),
Name(s)
(President, Owner), (ABC Company, Inc.),
Title(s) Name of Company

(hereinafter "Company"), in consideration of the privilege to submit Bids/Proposals on contracts funded, in whole or in part, by Cuyahoga County, hereby consents, covenants and agrees as follows:

(1) No person shall be excluded from participation in, denied the benefit of, or otherwise discriminated against on the basis of race, color, national origin or gender in connection with any Bid/Proposal submitted to Cuyahoga County or the performance of any contract resulting from;

(2) That it is and shall be the policy of this Company to provide equal opportunity to all business persons seeking to contact or otherwise interested in contracting with this Company, including various eligible Small Business Enterprises (hereinafter "SBEs");

(3) In connection herewith, I/We acknowledge and warrant that this Company has been made aware of, understands and agrees to make a Good Faith Effort to solicit SBEs to do business with this Company;

(4) That the Covenant of Non-Discrimination as made and set forth herein shall be continuing in nature and shall remain in full force and effect without interruption;

(5) That the Covenant of Non-Discrimination as made and set forth herein shall be and are hereby deemed to be made a part of, and incorporated by reference into, any contract or portion thereof which this Company may hereafter obtain; and

(6) That the failure of this Company to satisfactorily discharge any of the Covenant of Non-Discrimination as made and set forth herein shall constitute a material breach of contract entitling Cuyahoga County to declare the contract in default and to exercise any and all applicable rights and remedies, including but not limited to, cancellation of the contract, termination of the contract, suspension and debarment from future contracting opportunities, and withholding and/or forfeiture of compensation due and owing on a contract.

John Doe February 1, 2008
(Original Signature of Company Representative Identified Above) (Date)

SBE SUBCONTRACTOR PARTICIPATION PLAN

(MUST be submitted for EACH SBE Subcontractor Proposed)

SBE-2

RQ# XXXXXX

(A) Total Amount of Overall Contract Bid/Proposal \$ 500,000

Check One:

Service Contract ☐

Supply Contract ☐

Construction Contract ☒

Business Name of Prime Bidder ABC Company, Inc.

Address 111 Main Street

City Anywhere State Ohio Zip Code 44000

Telephone (216) 555-5555 E-Mail abccompany@yahoo.com

Firm Owned by: ☒ Majority ☐ Minority (specify: _____) ☐ Female

(B) Amount to be Subcontracted to SBE: \$ 100,000 [(B)/(A)]: 20 %

Percent of Total
Overall Contract Bid

Scope of Work Provided By SBE: Electrical Contracting Services

Prime Bidder's Name: John Doe Title: President/Owner

(Type or Print)

Prime Bidder's Signature: John Doe Date: February 1, 2008

(Date of Signature)

SBE SUBCONTRACTOR TO BE UTILIZED

(Must be certified by the Cuyahoga County Office of Procurement & Diversity)

Name of SBE: Electrifying Electric Company

Address: 456 Main Street, Anywhere, OH 44000

City Anywhere State Ohio Zip Code 44000

Area Code (216) Telephone 555-5551

*****NOTE: SBE MUST BE A COUNTY CERTIFIED SBE*****

The undersigned herewith agrees to subcontract with the above named bidder for the above said services(s) or supply(ies) to be furnished to the County.

SBE Subcontractor's Name: Tom Edison Title: President/Owner

(Type or Print)

Prime Bidder's Signature: Tom Edison Date: January 23, 2008

(Date of Signature)

GOOD FAITH EFFORT CERTIFICATION

(Must be submitted with bids NOT meeting SBE goal or requesting full or partial waiver)

Pursuant to the requirements for bidders under the SBE Program, and in consideration of the privilege to submit bids/proposals funded, in whole or in part, by Cuyahoga County,

I/We, (John Doe), (President, Owner) of (ABC Company, Inc.) Name(s) of Person(s)
Signing Below Title(s) Company Name

attest that I/We have exercised the following good faith efforts in addition to my/our regular and customary solicitation process: (Check ALL that apply and complete as indicated)

- ☒ I/We are requesting a FULL/PARTIAL WAIVER of the SBE Participation Goal for the following reason(s): We are requesting a partial waiver of the SBE Goal as we were only able to meet 20% of the 25% goal. We were unable to find an SBE to meet the additional 5% required.
- ☐ I/We are a non-profit agency and are requesting a FULL WAIVER of the SBE Participation Goal.
- ☒ I/We have contacted OPD or website to obtain a list of SBEs appropriate to the bid/proposal.
- ☒ I/We delivered written notice to available certified SBEs for each potential subcontracting or supply category in the contract AND all potential subcontractors or vendors which requested information on the contract.
- ☒ I/We have provided all potential subcontractors or vendors with adequate information as to plans, specifications, relevant terms and conditions of the contract, bonding requirements, and the last date and time for receipt of price quotations.
- ☒ I/We have attended the pre-bid/proposal conference.
- ☒ I/We have provided a written explanation for rejection of any potential SBE subcontractor or vendor to OPD, where price competitiveness is not the reason for rejection.
- ☒ I/We have actively solicited, through sending letters, emails or initiating personal contact, SBEs in all feasible and appropriate categories providing subcontracting opportunities for the contract under consideration.
- ☒ I/We have utilized the services of available community organizations and associations, contractors' groups, and trade associations known to publicize contracting and procurement opportunities, for the purpose of obtaining assistance in the contacting and recruitment of SBEs for the Cuyahoga County contract under consideration.
- ☒ I/We have conducted discussions with interested SBEs in good faith, and provided the same willingness to assist SBEs as has been extended to any other similarly situated subcontractor.
- ☒ I/We have taken steps to ensure that all labor supervisors, superintendents, and other on-site supervisory personnel are aware of and carry out the obligation to maintain a non-discriminatory work environment, free of harassment, intimidation and coercion at all construction sites, offices and other facilities to which employees are assigned to work.

RO# XXXXX

If applicable, identify all SBEs contacted to participate that declined or were not chosen:

<u>1. Perfect Plumbing Company</u>	<u>222 Main Street, Anywhere, OH 44000</u>	<u>216-555-5553</u>
<small>Name of Subcontractor/Vendor</small>	<small>Address</small>	<small>Phone</small>
<u>Paul Perfect</u>	<u>January 15, 2008</u>	<u>\$25,000 (5%)</u>
<small>Name of Contact</small>	<small>Date of Offer to Participate</small>	<small>Bid Amount</small>
		<u>January 18, 2008</u>
		<small>Date Offer Declined</small>

Reasons Given for Declining Has other commitments at this time and is unable to work with us.

<u>2. Dan's DuctWork Company</u>	<u>333 Main Street, Anywhere, OH 44000</u>	<u>216-555-5554</u>
<small>Name of Subcontractor/Vendor</small>	<small>Address</small>	<small>Phone</small>
<u>Dan Handy</u>	<u>January 18, 2008</u>	<u>\$25,000 (5%)</u>
<small>Name of Contact</small>	<small>Date of Offer to Participate</small>	<small>Bid Amount</small>
		<u>January 19, 2008</u>
		<small>Date Offer Declined</small>

Reasons Given for Declining They are no longer providing the required sub-contracting service as part of its business.

<u>3. Dave's Landscapes Inc</u>	<u>444 Main Street, Anywhere, OH 44000</u>	<u>216-555-5556</u>
<small>Name of Subcontractor/Vendor</small>	<small>Address</small>	<small>Phone</small>
<u>Dave Curbappeal</u>	<u>January 16, 2008</u>	<u>\$25,000 (5%)</u>
<small>Name of Contact</small>	<small>Date of Offer to Participate</small>	<small>Bid Amount</small>
		<u>January 17, 2008</u>
		<small>Date Offer Declined</small>

Reasons Given for Declining Has other commitments at this time and is unable to work with us.

(Make additional copies to extend list of SBE contacts if needed)

I/We affix my/our signature to this document to attest that I/We have exercised the above-indicated Good Faith Effort to promote SBE participation on the Bid/Proposal and Contract under consideration and to comply fully with the provisions of the Cuyahoga County Small Business Enterprise Program.

John Doe
Printed/Typed Name of Company Official

February 1, 2008
Date

John Doe
Signature (Must be Original)

President, Owner
Title of Company Official

ABC Company, Inc.
Full Company Name

111 Main Street
Mailing Address

216-555-5555
Area Code/ Phone Number

Anywhere, OH 44000
City, State, Zip

Nancy Notarious
Notary Public

December 31, 2010
My Commission Expires

CUYAHOGA COUNTY ENGINEER
SPECIFICATION BOOKLET

HIGHWAY CONSTRUCTION

2013-2014 Countywide Preventative Maintenance
Crack Seal

CONTENTS:

SECTION

100	GENERAL PROVISIONS
200	SPECIAL PROVISIONS
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400	PROPOSAL NOTES

SECTION 100
CUYAHOGA COUNTY ENGINEER
2010 GENERAL PROVISIONS

(Replaces Section 100 of the 2010 ODOT Construction and Material Specifications)

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101 DEFINITIONS AND TERMS

101.01 General

These *General Provisions* and ODOT's *Construction and Material Specifications* are written to the Bidder before award of the Contract and to the Contractor after award of the Contract. The sentences that direct the Contractor to perform Work are typically written as commands. For example, a requirement to provide cold-weather protection would be expressed as, "Provide cold-weather protection for concrete," rather than "The Contractor shall provide cold-weather protection for concrete." In the imperative mood, the subject "the Bidder" or "the Contractor" is understood.

All requirements to be performed by others have been written in the active voice. Sentences written in the active voice identify the party responsible for performing the action. For example, "The Engineer will determine the density of the compacted material." Certain requirements of the Contractor may also be written in the active voice, rather than the active voice and imperative mood, if the sentence includes requirements for others in addition to the Contractor. For example, "After the Contractor provides initial written notice, the Engineer will revise the Contract as specified in 104.02."

Sentences that define terms, describe a product or desired result, or describe a condition that may exist are written in indicative mood. These types of sentences use verbs requiring no action. For example, "The characteristics of the soils actually encountered in the subgrade may affect the quality of the cement and depth of treatment necessary."

101.02 Abbreviations

The following abbreviations, when used in the Contract Documents, represent the full text shown.

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
AC	Asphalt Cement (pavement), Alternating Current (traffic)
ACBF	Air Cooled Blast Furnace slag (aggregate)
ACI	American Concrete Institute
ACIA	Asynchronous Communications Interface Adapter (traffic controller)
ADT	Average Daily Traffic
ADTT	Average Daily Truck Traffic
AIC	Amps Interrupting Capacity
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANFO	Ammonium Nitrate Fuel Oil
ANSI	American National Standards Institute
AOS	Apparent Opening Size (fabric)
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
ATFDB	Asphalt treated Free Draining Base
AWG	American Wire Gauge
AWPA	American Wood Preservers' Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
BBR	Bending Beam Rheometer (asphalt test)
BMP	Best Management Practice (erosion)
BOF	Basic Oxygen Furnace (aggregate)
BSG	Bulk Specific Gravity
BTEX	Benzene, toluene, ethyl benzene, and xylene (a soil test)
BUSTR	Bureau of Underground Storage Tank Regulations (Division of Fire Marshal)

CMS	Construction and Material Specifications of the Ohio Department of Transportation
CAPWAP	Case Pile Wave Analysis Program
CBAE	Cut Back Asphalt Emulsion
CCRL	Cement and Concrete Reference Laboratory
CCS	Crushed Carbonate Stone
CECI	Contactors Erosion Control Inspector
CFR	Code of Federal Regulations
CIE	Commission Internationale d'Eclairage (illumination)
CPESC	Certified Professional in Erosion and Sediment Control
CRS	Cationic Rapid Set (asphalt emulsion)
CRSI	Concrete Reinforcing Steel Institute
CSS	Cationic Slow Set (asphalt emulsion)
CVN	Charpy V-notch (steel test)
CWT	Hundred Weight (100 lbs.)
DC	Direct Current
DCE	District Construction Engineer
DDD	District Deputy Director
DET	District Engineer of Tests
DGE	District Geotechnical Engineer
DLS	Data Logging System (traffic markings)
DNR	Department of Natural Resources
DRC	Dry Rodded Condition (asphalt test)
DSR	Dynamic Shear Rheometer (asphalt test)
DZA	Deficient Zone Average (concrete test)
EAF	Electric Arc Furnace
EDA	Earth Disturbing Activity
EEI	Edison Electric Institute
EIA	Electronic Industries Alliance
EPA	Environmental Protection Agency
EQS	Exceptional Quality Solids (compost)
FAA	Fine Aggregate Angularity (asphalt aggregate)
FCM	Fracture Critical Member (steel test)
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration, Department of Transportation
FRP	Fiber Reinforced Polymer
FSS	Federal Specifications and Standards, General Services Administration
GGBFS	Ground Granulated Blast Furnace Slag
GS	Granulated Slag
HDPE	High Density Polyethylene
HFRS	High Float Rapid Setting (emulsion)
HMWM	High Molecular Weight Methacrylate
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers Association
IPS	International Pipe Standard
ISSA	International Slurry Seal Association
ITE	Institute of Transportation Engineers
IZEU	Inorganic Zinc Epoxy Urethane
JMF	Job Mix Formula
LED	Light Emitting Diode
LWT	Loaded Wheel Test (asphalt test)
MBF	Thousand Board Feet (wood)
MC	Medium Cure (asphalt emulsion)
MCB	Microchannel Bus (traffic controller)

MMK	Blaw-Knox Materials Management Kit
MOV	Metal Oxide Varistor (traffic controller)
MPI	Magnetic Particle Inspection (steel test)
MSDS	Material Safety Data Sheets
MSG	Maximum Specific Gravity (asphalt)
MTD	Maximum Theoretical Density (asphalt)
NACE	National Association of Corrosion Engineers
NCHRP	National Cooperative Highway Research Program
NEMA	National Electrical Manufacturers Association
NHI	National Highway Institute
NIST	National Institute of Standards and Technology
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OAC	Ohio Administrative Code
ODOT	Ohio Department of Transportation
OEPA	Ohio Environmental Protection Agency
OH	Open Hearth (aggregate)
OHWM	Ordinary High Water Mark
OMM	Office of Materials Management (the Lab)
OMUTCD	Ohio Manual of Uniform Traffic Control Devices
ORC	Ohio Revised Code
ORDC	Ohio Rail Development Commission
OSHA	Occupational Safety and Health Administration
OTE	Office of Traffic Engineering
OWPCA	Ohio Water Pollution Control Act
OZEU	Organic Zinc Epoxy Urethane
PAT	Project Average Thickness (concrete test)
PAV	Pressure Aging Vessel (asphalt test)
PB	Polybutylene (conduit)
PCC	Portland Cement Concrete
PCS	Petroleum Contaminated Soil
PDA	Pile Dynamic Analysis (steel piling)
PE	Polyethylene (conduit)
PG	Performance Grade (asphalt test)
pH	Potential of Hydrogen
PLS	Pure Live Seed
PVC	Polyvinyl chloride
QA	Quality Assurance
QC	Quality Control
QCFS	Quality Control Fabricator Specialist (structures)
QCP	Quality Control Program, or Quality Control Points (steel test)
QCQC	Quality Control Qualification Committee
QPL	Qualified Products List
RACP	Reclaimed Asphalt Concrete Pavement
RAP	Recycled Asphalt Pavement
RC	Rapid Cure (asphalt emulsion)
REA	Rural Electrification Administration
RFI	Radio Frequency Interference (traffic controller)
RH	Relative Humidity
RMS	Root Mean Square (traffic controller)
RPCC	Recycled Portland Cement Concrete
RPM	Raised Pavement Marker (traffic)
RS	Rapid Set (asphalt emulsion)
RTFO	Rolling Thin-Film Oven (asphalt test)
RUS	Rural Utilities Service
SAE	Society of Automotive Engineers

SBA	Styrene Butadiene Amene
SBR	Styrene Butadiene Rubber
SBS	Styrene Butadiene Styrene
SCD	Standard Construction Drawing
SF	Standard Fabricated members (structures)
SI	International System of Units (Metric)
SMA	Stone Matrix Asphalt
SPD	Surge Protection Device (traffic controller)
SPST	Single Pole / Single Throw (traffic controller)
SS	Slow Set (asphalt emulsion)
SSD	Saturated Surface Dry (aggregate)
SSPC	Society for Protective Coatings
SWPPP	Storm Water Pollution Prevention Plan
TCE	Trichloroethylene
TMPTA	Tri-methylolpropane Tri-acrylate (paint)
TNP	Total Neutralizing Power
TODS	Tourist-Oriented Directional Signs
TSEC	Temporary Sediment and Erosion Control
TSR	Tensile Strength Ratio (asphalt test)
UF	Unique Fabricated members (structures)
UL	Underwriters' Laboratories, Inc.
USACE	United States Army Corps of Engineers
USC	United States Code
VA	Verification Acceptance
VAC	Volts Alternating Current
VCA	Volume of Coarse Aggregate (asphalt test)
VECP	Value Engineering Change Proposal
VMA	Voids in the Mineral Aggregate
VME	VersaModule Eurocard (traffic controller)
WDT	Watchdog Timer
WEAP	Wave Equation Analysis (steel piling)
WPS	Welding Procedure Specification (steel test)
WZRPMP	Work Zone Raised Pavement Marker (traffic)
XCU	Explosion, Collapse and Underground

101.03 Definitions. The following terms or pronouns, when used in the Contract Documents, are defined as follows:

Addenda. Changes or revisions to the Bid Package made subsequent to the initial advertisement and prior to the bid opening.

Advertisement. The public announcement, as required by law, inviting Bids for Work to be performed or materials to be furnished.

Area Construction Engineer. The duly authorized representative of the Cuyahoga County Department of Public Works acting within the scope of his/her authority for purposes of engineering and administration of the Contract.

Award. The written acceptance by the County of a bid.

Bid. The offer of a Bidder, on the prescribed form properly signed and guaranteed, to perform the Work and to furnish the labor and materials at the prices quoted.

Bidder. An individual, firm or corporation submitting a Bid for the advertised Work.

Bid Due Date. The Calendar Day on which all Proposals/Bids are to be turned in to the Office of Procurement and Diversity.

Bid Package. Includes the Proposal Package, the Cuyahoga County Engineer Specification Booklet, the Plans and the Standard Construction Drawings.

Bridge. A structure, including supports, erected over a depression or an obstruction, as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads and having a length measured along the center of roadway of 20 feet (6.10 m) or more between undercopings of abutments or extreme limits of openings for multiple boxes.

Calendar Day or Day. Every day shown on the calendar.

Certified Test Data. A test report from a manufacturer's or an independent laboratory approved by the Engineer listing actual test results of samples tested for compliance with contract requirements. Certified test data will be accepted from manufacturers' laboratories if their products have been used satisfactorily on prior Cuyahoga County Department of Public Works or ODOT projects and their test data has been confirmed. The report shall include a statement that the test data furnished is representative of the material furnished to a Cuyahoga County Department of Public Works or ODOT project or to a supplier. The report is identified by number and/or date and identifies the Cuyahoga County Department of Public Works project or supplier to which the material is shipped. The report shall be signed by a person having legal authority to act for the manufacturer or independent laboratory.

Change Order. A written order issued by the Engineer to the Contractor, covering changes to the terms and conditions, plans and or quantities within or beyond the scope of the contract and establishing the basis of payment and time adjustments for the Work affected by the changes.

Claims. Unsettled disputes for which the Contractor has documented costs or time incurred as a result of such disputes. The Dispute becomes a Claim when the Contractor submits a Notice of Claim.

Completion Date. The date, as shown in the Contract Documents, on which the Work contemplated shall be completed.

Construction Limits. These limits must encompass all Work. This includes removals, room for construction equipment to complete work, site access, etc.

Contract. The written agreement between the County and the Contractor setting forth the obligations of the parties, including, but not limited to, the performance of the Work.

Contract Documents. The Contract Documents include the Invitation for Bids, Addenda, Legal Notice to Bidders, Instructions to Bidders, Required Bid Documents, Cuyahoga County Department of Public Works Construction Proposal Form including the Itemized Unit Price Bid Sheets, Non-Collusion Affidavit, Bid Guaranty, Work Types Worksheet, Required Small Business Enterprise Forms (for non-federally funded projects only), Sample Contract Forms, Cuyahoga County Form of Agreement Unit Price Contract, Bond of Contractor (Performance and Payment), Wage Determination Schedule, Bidder's Manual (Small Business Enterprise Goal, for non-federally funded projects only), Cuyahoga County Engineer General Provisions, Special Provisions, Supplemental Specifications, Proposal Notes, Plans, Standard Construction Drawings, binding correspondence, Change Orders, Extra Work Contracts, and any and all other supplemental agreements or other designated documents, that over the course of the Contract Time, are required to complete the work in an acceptable manner. Together, all of the Contract Documents constitute one instrument.

Contract Item (Pay Item). A specifically described unit of Work for which a price is provided in the Contract.

Contract Price. The amount of compensation bid by the Contractor for a Contract Item in the Proposal or the amount of compensation established for a Contract Item added or modified pursuant to the Contract Documents.

Contract Time. The number of workdays or calendar days, including authorized adjustments, allowed for completion of the Project. When a specified Completion Date is shown in the Contract Documents instead of the number of workdays or calendar days, completion of the Project shall occur on or before that date. Specified Completion Date and Calendar Day Contracts shall be completed on or before the day indicated even when that date is a Saturday, Sunday, or holiday.

Contractor. The individual, firm or corporation contracting with County for performance of prescribed Work, acting directly or through a duly authorized representative.

County. Cuyahoga County

Culvert. Any structure not classified as a bridge which provides an opening under the roadway.

Department. The Cuyahoga County Department of Public Works.

Director. The Cuyahoga County Director of Public Works or his/her duly authorized agent.

Disputes. Disagreements, matters in question and differences of opinion between the Cuyahoga County Department of Public Works' personnel and the Contractor that may include a request for additional money and/or time.

Engineer. A representative of The Cuyahoga County Department of Public Works acting within the scope of his/her authority for purposes of engineering and administration of the Contract.

Equipment. All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the Work.

Extra Work. An item of Work not provided for in the Contract as awarded but found essential to the satisfactory completion of the Contract within its intended scope.

Extra Work Contract. A Contract or supplemental agreement concerning the performance of Work or furnishing of materials involving Extra Work. Such Extra Work may be performed at agreed prices or on a force account basis and shall be subject to the provisions of section 5555.69 of the ORC.

Fabricator. The individual, firm, or corporation that fabricates structural metals or prestressed concrete members as an agent of the Contractor.

Final Inspector. The Area Construction Engineer, or an Engineer appointed by the Cuyahoga County Director of Public Works, or the Area Construction Engineer, who inspects the completed Work and accepts it if it complies with the Contract Documents.

Inspector. The Engineer's authorized representative assigned to make detailed inspections of contract performance.

Invitation for Bids. The invitation for Proposals for all Work or materials on which Bids are required. Such Proposal will indicate with reasonable accuracy the quantity and location of the Work to be done or the character and quality of the material to be furnished and the time and place of the opening of Proposals.

Laboratory. The Testing Laboratory of the County or a testing laboratory approved by the Engineer.

Major Item of Work. A contract Item which, based on the "Total Amount Bid" for each Contract Item, totals \$100,000.00 or more and/or a Contract Item within the top twenty percent (20%) of the highest cost Contract Items.

Materials. Any materials or products specified for use in the construction of the Project and its appurtenances.

Ohio Department of Transportation (ODOT). The Ohio Department of Transportation.

Performance and Payment Bond. The approved form of security per ORC section 153.57 or 153.571, executed by the Contractor and his sureties, which guarantee complete execution of the Contract, and, all supplemental agreements pertaining thereto, including the payment of all legal debts pertaining to the Contract.

Plans. The drawings, standard construction drawings and supplemental drawings provided by the Cuyahoga County Department of Public Works and Cuyahoga County that show the location, character, dimensions, and details of the Work.

Prebid Question. A written inquiry submitted by a prospective Bidder.

Profile Grade. The trace of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the roadbed. Profile grade means either elevation or gradient of such trace according to the context.

Project. The specific section of the highway together with all appurtenances and work to be performed thereon under the Contract.

Project Limits. Project limits are points on the mainline centerline of construction where the proposed improvement, as described in the project description of the Title Sheet (excluding incidental construction), begins and ends.

Project Right-of-Way. That portion of the Right-of-Way between the beginning and end of the Project.

Proposal. A Bidder's written offer to perform the stated Work at the quoted prices provided on forms furnished by the Cuyahoga County Department of Public Works.

Proposal Form. The approved form on which the Cuyahoga County Department of Public Works requires Bids to be prepared and submitted for the Work.

Proposal Guaranty. The security furnished with a Bid in accordance with ORC section 153.54 to guarantee that the Bidder will enter into the Contract if his Bid is accepted.

Proposal Package. Includes the "Legal Notice to Bidders", "Instructions to Bidders", "Required Bid Documents", "Sample Contract Forms", "Wage Determination Schedule", and, for non-federally funded projects, the Cuyahoga County Bidders' Manual for the Small Business Enterprise Goal.

Reasonably Close Conformity. Reasonably close conformity means compliance with reasonable and customary manufacturing and construction tolerances where working tolerances are not specified. Where working tolerances are specified, reasonably close conformity means compliance with such working tolerances. Without detracting from the complete and absolute discretion of the Engineer to insist upon such tolerances as establishing reasonably close conformity, the Engineer may accept variations beyond such tolerances as reasonably close conformity where they will not materially affect the value or utility of the Work and the interests of the Cuyahoga County Department of Public Works.

Registered Engineer. An engineer registered with the Ohio State Board of Registration for Professional Engineers and Surveyors to practice professional engineering in the State of Ohio

Registered Surveyor. A surveyor registered with the Ohio State Board of Registration for Professional Engineers and Surveyors to practice professional surveying in the State of Ohio.

Right-of-Way. A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to a highway.

Road. A general term denoting a public way for purposes of vehicular travel, including the entire area within the Right-of-Way, as defined in ORC 5555.01.

Roadbed. The graded portion of a highway within top and side slopes, prepared as a foundation for the pavement structure and shoulder.

Roadside. The areas between the outside edges of the shoulders or curbs and the Right-of-Way boundaries. Unpaved median areas between inside shoulders or curbs of divided highways and infield areas of interchanges are included.

Roadside Development. Those items necessary to the highway that provide for the preservation of landscape materials and features; the rehabilitation and protection against erosion of all areas disturbed by construction through seeding, sodding, mulching and the placing of other ground covers; such suitable planting, and other improvements as may increase the effectiveness and enhance the appearance of the highway.

Roadway. The portion of a highway within the limits of construction.

Shop Drawings. The drawings provided by the Contractor or Supplier that describe any portion of the Work that will remain in place permanently.

Shoulder. The portion of the roadway contiguous to the traveled way for accommodation of stopped vehicles, for emergency use, and/or for lateral support of base and surface courses.

Sidewalk. That portion of the roadway primarily constructed for the use of pedestrians.

Signatures on Contract Documents. All signatures on Contract Documents must meet the requirements of 102.06.

Special Provisions. Additions and revisions to the standard and supplemental specifications covering conditions peculiar to an individual project.

Specifications. The directions, provisions and requirements contained herein and in the latest edition of ODOT CMS and as supplemented by the supplemental specifications, proposal notes and special provisions.

State. Shall mean County

Street. A general term denoting a public way for purpose of vehicular travel, including the entire area within the Right-of-Way.

Structures. Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains and other features which may be encountered in the Work and not otherwise classed herein.

Subcontractor. A qualified individual, firm or corporation to whom the Contractor sublets part of the Contract to be performed on the job site, who prior to such undertaking receives the written consent of Cuyahoga County.

Subgrade. The portion of a roadbed upon which the pavement structure and shoulders are constructed.

Substructure. All of that part of the structure below the bearings of simple and continuous spans, skewbacks of arches and tops of footings of rigid frames, together with backwalls and wings.

Superintendent. The Contractor's authorized representative in responsible charge of the Work.

Superstructure. The entire structure except the substructure.

Supplement. A list of requirements for fabrication plants, methods of test, or other miscellaneous requirements which are maintained on file in the Cuyahoga County Department of Public Works.

Supplemental Agreement. A written agreement executed by the Contractor and by Cuyahoga County covering necessary alterations.

Supplemental Specifications. Detailed specifications supplemental to or superseding these specifications and/or the ODOT Construction and Material Specifications.

Surety. The corporation, partnership or individual, other than the Contractor, executing a bond furnished by the Contractor.

Titles (or Headings). The titles or headings of the sections and subsections herein and in the ODOT CMS are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

The Work. The Work consists of all elements of the project as described by the Contract and Supplemental Agreements thereto.

Waters of the United States. Waters that are under the jurisdiction of the Corps of Engineers under the Clean Water Act as defined by 33 CFR Ch. II Part 328, which as applied to Ohio means: the Ohio River and Lake Erie and any other river, stream, creek, lake, pond, or wetland that drains directly or indirectly into the Ohio River or Lake Erie.

Work. All labor, materials, equipment, tools, transportation, supplies, and other incidentals and all tasks that comprise the Project or any portion thereof, as described by the Contract Documents.

Workday. A calendar day that the Contractor normally works.

Working Drawings. Stress sheets, shop drawings, erection plans, falsework plans, installation plans, certified drawings, frame work plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplementary plans or similar data that the Contractor is required to submit for approval.

Work Limits. Work Limits are the extreme limits of the Contractor's responsibility on a project, including all temporary and incidental construction, with the exception of work zone traffic control devices required for maintenance of traffic.

101.04 Interpretations. In order to avoid cumbersome and confusing repetition of expressions in these general provisions and the ODOT CMS, it is provided that whenever anything is, or is to be, done, if, as, or, when, or where "contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, unsatisfactory, sufficient, insufficient, rejected, or condemned," it shall be understood as if the expression were followed by the words "by the Engineer" or "to the Engineer."

102 BIDDING REQUIREMENTS AND CONDITIONS

102.01 Bidder Qualifications

Bidders shall refer to the Instructions to Bidders found in Section 2 of the Proposal Package for Bidder qualification requirements.

102.02 Contents of Cuyahoga County Bid Package

The Bid Package, which includes the Proposal Package, Plans, Cuyahoga County Engineer Specification Booklet, and Standard Construction Drawings may be obtained from the Cuyahoga County Office of Procurement and Diversity, County Administration Building, 1219 Ontario Street, Room 110, Cleveland, Ohio 44113 for the fee stated in the Legal Notice to Bidders. The Proposal Package includes the Legal Notice to Bidders, Instructions to Bidders, Required Bid Documents, Sample Contract Forms, the Wage Determination Schedule, and, for non-federal aid projects, the Cuyahoga County Bidders' Manual for the Small Business Enterprise Goal. The Required Bid Documents contain the Cuyahoga County Department of Public Works Construction Proposal Form along with the Itemized Unit Bid Sheets which include the Cuyahoga County Department of Public Works' "Total Estimated Cost", the location and description of the contemplated construction and the approximate estimate of the various quantities and kinds of Work to be performed or materials to be furnished, and upon which unit bid prices are invited. The Proposal Package will state the date on which the Work must be completed, the amount of the proposal guaranty, and the date, time and place of the opening of proposals. The Cuyahoga County Engineer Specification Booklet includes these General Provisions, any Special Provisions, Supplemental Specifications, Proposal Notes or other requirements, which vary from or are not contained in the plans and specifications.

The plans, specifications and other documents designated in the Bid Package will be considered a part of the Bid Package whether attached or not.

102.03 Consideration of Proposals

Cuyahoga County reserves the right to disqualify or refuse to consider a Proposal if a Bidder is in default for any of the following reasons:

- (a) Lack of competency and adequate machinery, plant and other equipment, as revealed by the information required or requested under 102.01.
- (b) Uncompleted Work which, in the judgment of the Cuyahoga County Department of Public Works, might hinder or prevent the prompt completion of additional Work if awarded.
- (c) Failure to comply with any qualification regulation of Cuyahoga County or the Cuyahoga County Department of Public Works.
- (d) Default under previous contracts.
- (e) The prospective Bidder is debarred from bidding or is currently in the debarment process of the Ohio Department of Transportation.
- (f) Failure to comply with a County ordinance including, but not limited to, the Cuyahoga County Ethics Ordinance, Cuyahoga County Inspector General Ordinance, and Cuyahoga County Contracting and Purchasing **Procedures** Ordinance; all as amended, and the successful bidder shall comply with all such ordinances as an integral part of all County contracts. Copies of all County ordinances are available on the County Council's web site at <http://council.cuyahogacounty.us/>.

102.04 Interpretation of Quantities in Proposal

The quantities appearing in the Proposal are approximate only and are prepared for the comparison of Bids. The Cuyahoga County Department of Public Works does not assume any responsibility that the quantities will actually be required in the project construction, nor will the Contractor be allowed to plead misunderstanding or deception because of the quantity estimates or because of the character of the Work, the location, or other conditions. Payment to the Contractor will be made only for the actual quantities of Work performed and accepted or materials furnished and accepted in accordance with the contract except for lump sum Contracts, and except for lump sum items in unit price Contracts. The scheduled quantities of Work to be done and

materials to be furnished may each be increased, decreased, or eliminated as determined by the Cuyahoga County Department of Public Works. No claim shall be made by the Contractor for any loss of anticipated profits because of any alteration or variation between the approximate quantities and the quantities of Work as done.

102.05 Examination of Bid Package and Project Site and Submission of Prebid Questions.

The Contractor shall carefully examine the Bid Package and perform a reasonable site investigation before submitting a Bid. Submitting a Bid is an affirmative statement that the Bidder has investigated the Project site and is satisfied as to the character, quality, quantities, and the conditions to be encountered in performing the Work. A reasonable site investigation includes investigating the Project site, borrow sites, hauling routes, and all other locations related to the performance of the Work.

When available, the County will include in the Contract Documents or provide for the Bidder's review at the Cuyahoga County Department of Public Works office or other offices, one or more of the following:

- A. Record drawings.
- B. Available information relative to subsurface exploration, borings, soundings, water levels, elevations, or profiles.
- C. The results of other preliminary investigations.

A reasonable site investigation includes a review of these documents.

Should a question arise at any time during the examination of Bid Documents or investigation of the site the Bidder may seek clarification by submitting a Prebid Question. Submit all Prebid Questions in writing via fax or e-mail as indicated in the Section 2 Instructions to Bidders of the Proposal Package (2.09 Interpretation of the Bid Package). The Cuyahoga County Department of Public Works' responses to Prebid Questions will also be as indicated in the Section 2 Instructions to Bidders of the Proposal Package (2.09 Interpretation of the Bid Package). The Cuyahoga County Department of Public Works will respond to all questions submitted before a deadline of 10:00 A.M. four working days prior to the public opening of Bids. Responses to Prebid Questions are not revisions to the Bidding Documents and are not binding. The Cuyahoga County Department of Public Works is not obligated to respond to, or otherwise act upon, a Prebid Question submitted after this deadline, but reserves the right to act upon any information received.

102.06 Preparation of Proposal

- A. The Bidder shall submit his/her Proposal on the Cuyahoga County Department of Public Works Construction Proposal Form prepared by the Cuyahoga County Department of Public Works. All the words and figures shall be in ink or typed.

To complete the "Itemized Unit Price Bid Sheets" the Bidder must enter a unit price bid in the "Unit Price Bid" column for each item for which there is a quantity given in the "Estimated Quantity" column, except for "Item 832 - Erosion Control", where the "Unit Price Bid" and the "Total Amount Bid" have been provided. The Bidder shall enter a unit price for each item. Failure to do so will render the Proposal informal at the discretion of Cuyahoga County. To determine the total amount bid for each item, the bidder shall multiply the unit price bid for each item against the estimated quantity given. The figure arrived at through this multiplication shall then be placed in the "Total Amount Bid" column for that item. Where the estimated quantity for an item is designated as "Lump", the Bidder shall enter his/her lump sum bid for that item in the "Unit Price Bid" column as well as in the "Total Amount Bid" column. To determine the "Section Total" the Bidder shall add all figures in the "Total Amount Bid" column for each item in that section and the sum shall be entered on the corresponding "Section Total" line. For example, the "Section Total Roadway" is the sum of the "Total Amount Bid" column for all Roadway items. The sum of the Section Totals shall be entered as the "Grand Total Bid". When the Proposal includes Alternate Bid Item(s), the Bidder shall enter a "Unit Price Bid" and a "Total Amount Bid" for each Alternate Bid Item listed.

Failure to do so will render the Proposal informal at the discretion of Cuyahoga County. The Bidder's Grand Total Bid, excluding the Alternate Bid Item(s), shall in no case exceed the Cuyahoga County Department of Public Works' "Total Estimated Cost" by more than ten (10) percent. Any bid that exceeds the Cuyahoga County Department of Public Works' Estimate by more than ten (10) percent will be deemed informal and unacceptable. The Bidder shall enter a unit price for each item except for "Item 832 – Erosion Control", where the "Unit Price Bid" and the "Total Amount Bid" have been provided. Failure to do so will render the Proposal informal at the discretion of Cuyahoga County.

When an item in the Proposal contains a choice to be designated by the Bidder, the Bidder shall indicate his/her choice in accordance with the specifications for that particular item, and thereafter no further choice will be permitted.

The Proposal shall include a properly executed Noncollusion Affidavit.

The bidder's proposal must be signed with ink by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture, by one or more officers of a corporation, or by an agent of the Bidder legally qualified and acceptable to Cuyahoga County. If the Proposal is made by an individual, his/her name and business address must be shown; by a partnership, the name and business address of each partnership member must be shown; as a joint venture, the name and business address of each member or officer of the firms represented by the joint venture must be shown; by a corporation, the name of the state under the laws of which the corporation is chartered and the name and title of the officer or officers having authority under the bylaws to sign contracts, the name of the corporation and the business address of its corporate officials must be shown. Anyone signing a Proposal as an agent shall file legal evidence of his/her authority to do so.

B. Proposals will be considered irregular and may be rejected for the following reasons:

- (a) If the Proposal is on a form other than that furnished by the Cuyahoga County Department of Public Works; or if the form is altered or any part thereof is detached.
- (b) If there are unauthorized additions, conditional or alternate Bids, or irregularities of any kind which may tend to make the Proposal incomplete, indefinite, or ambiguous as to its meaning.
- (c) If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a Contract pursuant to an award. This does not exclude a bid limiting the maximum gross amount of awards acceptable to any one bidder at any one Bid letting, provided that any selection of awards will be made by Cuyahoga County.
- (d) If the Proposal does not contain a unit price for each pay item listed except in the case of authorized alternate pay items or lump sum items.
- (e) If the Cuyahoga County Department of Public Works determines that any of the unit bid prices are significantly unbalanced to the potential detriment of Cuyahoga County or the Cuyahoga County Department of Public Works, the Proposal will be rejected.
- (f) If the Proposal is not properly signed.
- (g) If the Proposal is not typed or in ink.

102.07 Duty to Notify of Errors in Bid Package.

Notify the County of errors and omissions in the Bid Package. Make notification by submitting a question in the manner described in 102.05. The Contractor's duty to disclose errors and omissions is not only a bidding requirement but is also a legal requirement that cannot be ignored.

Failure to provide the required notification prior to the opening of bids shall constitute a waiver by the Contractor and does not obligate the County for any costs based upon any apparent or patent ambiguity arising from insufficient data or obvious errors in the Bid Package. Knowingly withholding information regarding an error or omission in the Bid Package, or intentionally misrepresenting an item of Work for financial or competitive gain may result in civil or criminal penalties in excess of the value of the item bid.

102.08 Unbalanced Bidding.

Bid all items correctly and price each quantity as indicated in the Bid Package. The County will reject a Mathematically Unbalanced Bid if the Bid is also Materially Unbalanced. A Mathematically Unbalanced Bid is a Bid containing lump sum or unit price items that do not include reasonable labor, equipment, and material costs plus a reasonable proportionate share of the Bidder's overhead costs, other indirect costs, and anticipated profit. A Materially Unbalanced Bid is when the County determines that an award to the Bidder submitting a Mathematically Unbalanced Bid will not result in the lowest ultimate cost to the County.

102.09 Proposal Guaranty

No Proposal will be considered unless accompanied by a Bid Guaranty as required in the Proposal Package.

102.10 Delivery of Proposals

Proposals containing all documents required by the Instructions to Bidders in the Proposal Package must be delivered in a sealed envelope addressed:

**Cuyahoga County
Office of Procurement and Diversity
County Administration Building
1219 Ontario Street
Room #110
Cleveland, Ohio 44113**

The Project Name, Requisition Number and Bid Due Date, all as stated in the Proposal Package, and the Bidder's name and address shall be clearly marked on the outside of the sealed envelope. The sealed envelope must be deposited in the bid box located in the Office of Procurement and Diversity at the above address by two o'clock in the afternoon (2:00 P.M.) local time on the Bid Due Date, at which time and place the Proposals will be publicly opened and read aloud in accordance with the Legal Notice to Bidders duly published. Proposals received after the time for opening of bids will be returned to the Bidder unopened. The County will return all Bids not prepared and submitted in accordance with the Proposal Package.

102.11 Withdrawal of Proposals

A Bidder may withdraw his/her Proposal, provided a request in writing is received in the Office of Procurement and Diversity of Cuyahoga County prior to the time set for opening proposals as indicated in the Legal Notice to Bidders. When a withdrawn Proposal is reached at the Proposal opening, it will be returned to the Bidder unopened. A Bidder may also withdraw a Proposal pursuant to the provisions of ORC Section 9.31 or 153.54(G). Any Bidder for whom a request to withdraw its Bid is approved by the County will not be permitted to participate in any manner in a contract awarded for that project for which the Bid was withdrawn.

102.12 Combination or Conditional Proposals

If Cuyahoga County so elects, Proposals may be issued for projects in combination and/or separately, so that Bids may be submitted either on the combination or on separate units of the combination. Cuyahoga County reserves the right to make awards on combination Bids or separate Bids to the best advantage of Cuyahoga County. No combination Bids, other than those specifically set up on the Proposals by Cuyahoga County, will be considered. Separate contracts will be written for each individual Project included in the combination.

102.13 Public Opening of Proposals

Proposals will be opened and read publicly at the time and place designated in the Proposal Package. Bidders, their authorized agents, and other interested parties are invited to be present.

102.14 Disqualification of Bidders.

The County will declare a Bid non-responsive and ineligible for award when any of the following occur:

- A. The Bidder lacks sufficient prequalification work types or dollars to be eligible for award.
- B. The Bidder fails to furnish the required Proposal Guaranty in the proper form and amount.
- C. The Bid contains unauthorized alterations or omissions.
- D. The Bid contains conditions or qualifications not provided for in the Bid Package.
- E. The Proposal is not prepared as specified.
- F. A single entity, under the same name or different names, or affiliated entities submits more than one Bid for the same Project.
- G. The Bidder fails to submit a unit price for each contract item listed, except for lump sum items where the Bidder may show a price in the "Bid Amount" column for that item.
- H. The Bidder fails to submit a lump sum price where required.
- I. The Bidder is debarred by the County or the Ohio Department of Transportation from submitting Bids.
- J. The Bidder has defaulted, has had a Contract terminated for cause by the County, has either agreed not to Bid or has had debarment proceedings initiated against the Bidder's company and/or its key personnel by the Ohio Department of Transportation.
- K. The Bidder submits its Bid or Proposal Guaranty on forms other than those provided by the County.
- L. The Bidder fails to submit properly completed Required Bid Documents inclusive of signatures and notarization.
- M. The Bidder submits a Materially Unbalanced Bid as defined by 102.08.
- N. The Bidder fails to acknowledge addenda.
- O. The County finds evidence of collusion. Participants in such collusion will receive no recognition as Bidders for any future Work from Cuyahoga County until any such participant has been reinstated as a qualified Bidder.
- P. Any other omission, error, or act that, in the judgment of the County, renders the Bidder's bid non-responsive.
- Q. Proposals may be rejected if they show any alterations of forms, additions not called for, conditional Bids, incomplete Bids, or irregularities of any kind. Cuyahoga County reserves the right to waive any informality in the Proposal and to reject any or all Bids.

102.15 Material Guaranty

Before any Contract is awarded, the County may require the Bidder to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the Work together with samples. The County may test the samples as specified in these Specifications to determine their quality and fitness for the Work.

103 AWARD AND EXECUTION OF CONTRACT

103.01 Consideration of Proposals

After the proposals are opened and read, they will be compared on the basis of the summation of the products of the approximate quantities shown in the proposal by the unit bid prices. In the event of a discrepancy between unit bid prices and extensions thereof, the unit bid price shall govern.

The right is reserved to reject any or all proposals, to waive technicalities or to advertise for new proposals, if in the judgment of Cuyahoga County their best interests will be promoted thereby.

103.02 Award of Contract

The award of the contract, if it be awarded, will be made to the lowest and best bidder whose proposal complies with all the requirements contained in the Bid Package. In accordance with ORC 153.12, the award and execution of the contract shall be made within 60 calendar days after the date on which the bids are opened. The failure to award and execute the contract within 60 days invalidates the entire bid proceedings and all bids submitted, unless the time for awarding and executing the contract is extended by mutual consent of the County and the bidder whose bid the County accepts. In no case will an award be made until all necessary investigations are made as to the responsiveness and responsibility of the bidder to whom it is proposed to award the contract. The Cuyahoga County Department of Public Works will send a Notice of Award letter and Contract Documents by certified mail to the successful bidder, at the address shown on his/her proposal, indicating that his/her bid has been accepted and that he/she has been awarded the contract. The successful bidder may elect to pick up the Notice of Award letter and Contract Documents in person at the Cuyahoga County Department of Public Works' office and sign an acknowledgement of receipt.

No award will be made for a sum greater than the Cuyahoga County Department of Public Works' estimated cost of the improvement plus 10 percent of such estimated cost.

103.03 Cancellation of Award

Cuyahoga County may cancel a Contract award at any time before all parties sign the Contract without liability to Cuyahoga County.

103.04 Return of Bid Guaranty

Bid Guaranties filed pursuant to division (A) of ORC section 153.54 shall be returned to all unsuccessful bidders immediately after the contract is executed. A bid guaranty filed pursuant to division (A)(2) of ORC section 153.54 shall be returned to the successful bidder upon filing of the bond required in division (C) of ORC section 153.54.

103.05 Requirement of Performance and Payment Bond

If the successful bidder's bid guaranty was filed pursuant to division (A)(2) of ORC section 153.54, then the successful bidder shall furnish a Performance and Payment Bond in accordance with ORC section 153.57. The Performance and Payment Bond shall be furnished prior to execution of the contract, and within 10 days of receiving the Notice of Award, as required in ORC section 153.54(D). The Performance and Payment Bond shall be in a sum equal to 100% of the amount of the contract, payable to the Treasurer of Cuyahoga County and executed by a Surety Company authorized to do business in the State of Ohio.

If the successful bidder's bid guaranty was in the form of a bid bond filed pursuant to division (A)(1) of ORC section 153.54, it shall automatically increase to a 100% Performance and Payment Bond. All cost associated with obtaining the Bonds noted above shall be considered incidental to the contract.

All bonds must be signed by the authorized agent of an acceptable Surety Bonding Company and by the bidder. (Affix corporate seals)

Surety bonding company bonds must be supported by credentials showing the power of attorney of the agent, a certificate showing the legal right of the Bonding Company to do business in the State of Ohio, and a financial statement of the Surety.

103.06 Execution of Contract

The contract shall be signed by the successful bidder and returned, together with all other items called for in the Notice of Award letter, within 10 days after the bidder has received notice that the contract has been awarded, as required by ORC section 153.54(D). No proposal shall be considered binding upon Cuyahoga County until the execution of the contract by Cuyahoga County.

103.07 Failure to Execute Contract

If the successful bidder fails or refuses to enter into a proper contract with Cuyahoga County within ten (10) days after receiving the Notice of Award letter, the bidder and his surety shall be liable to Cuyahoga County as described in ORC section 153.54(D) and 153.54(E).

Failure to execute the contract and provide the required Performance and Payment Bond shall be just cause for the cancellation of the award. Award may then be made to the next lowest responsive bidder, or the project may be resubmitted for bidding, as Cuyahoga County may decide.

104 SCOPE OF WORK

104.01 Intent of Contract

The intent of the Contract is to provide for the construction and completion in every detail of the Work described. The Contractor shall perform all items of Work covered and stipulated in the proposal and perform altered and Extra Work, furnish all labor, materials, equipment, tools, transportation and supplies required to complete the Work in accordance with the plans, specifications and terms of the contract. Should any misunderstanding arise as to the intent or meaning of the plans, specifications, special provisions or proposal, or any discrepancy appear, the decision of the Engineer shall be final and conclusive.

104.02 Revisions to the Contract Documents.

A. General

The Engineer reserves the right to make, at any time during the work, such increases or decreases in quantities and such alteration in the Work as necessary to satisfactorily complete the project. Such increases or decreases and alterations shall not invalidate the contract nor release the Surety, and the Contractor agrees to perform the Work as increased, decreased or altered.

Increased or altered Work is subject to the rules and limitations of ORC section 5555.69 and the current Cuyahoga County policies relating thereto.

B. Differing Site Conditions.

During the progress of the Work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract Documents or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the Work provided for in the Contract Documents, are encountered at the site, notify the Engineer as specified in 104.05 of the specific differing conditions before they are disturbed or the affected Work is performed.

Upon notification, the Engineer will investigate the conditions and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any Work under the Contract, the County will make an adjustment and modify the Contract as specified in 108.06 and 109.05. The Engineer will notify the Contractor of the determination whether or not an adjustment of the Contract is warranted.

C. Suspension of Work.

If the performance of all or any portion of the Work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes that additional compensation or time is due as a result of such suspension or delay, notify the Engineer as specified in 104.05.

Upon receipt of notice, the Engineer will evaluate the Contractor's request. If the Engineer agrees that the cost or time required for the performance of the Work has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the Engineer will make an equitable adjustment (excluding profit) and modify the contract as specified in 108.06 and 109.05. The Engineer will notify the Contractor of its determination whether or not an adjustment to the Contract Documents is warranted. Failure of the Engineer to suspend or delay the Work in writing does not bar the Contractor from receiving a time extension or added compensation according to 108.06 or 109.05.

The County will not make an adjustment under this subsection in the event that performance is suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this Contract.

D. Significant Changes in Character of the Work.

The Engineer may alter the Work as necessary to complete the Project. The Engineer will make appropriate adjustments according to 108.06 and 109.05, if such alterations significantly change the character of the Work.

If the Contractor disagrees as to whether an alteration constitutes a significant change, use the notification procedures specified in 104.05.

The term "significant change" is defined as follows:

1. when the character of the Work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
2. when the product of the quantity in excess of the estimated quantity of a "Major Item of Work" and the unit price exceeds the limits set forth in Table 104.02-1.

TABLE 104.02-1

Contract Price	Contract Limits
Up to \$500,000	\$25,000
\$500,001 to \$2,000,000	5% of Total Contract Price
Over \$2,000,000	\$100,000

If the decrease in quantity of any unit price "Major Item of Work" exceeds 25 percent of the estimated quantity, and the total of all such adjustments for all "Major Items of Work" is more than \$400, then after the determination of final quantities according to 109.12.C, the Engineer will adjust the unit prices for the affected "Major Items of Work" by multiplying the bid unit price by the factor obtained from Table 104.02-2.

TABLE 104.02-2

% Decrease	Factor	% Decrease	Factor
25 to 28	1.02	61	1.14
29 to 32	1.03	62	1.15
33 to 35	1.04	63	1.16
36 to 38	1.05	64	1.17
39 to 41	1.06	65	1.18
42 to 44	1.07	66	1.19
45 to 47	1.08	67	1.20
48 to 50	1.09	68	1.21
51 to 53	1.10	69	1.22
54 to 56	1.11	70	1.23
57 to 59	1.12	71	1.24
60	1.13	72 and over	1.25

When the increase in quantity or decrease in quantity of any unit price "Major Item of Work" does not exceed the limits set forth in Tables 104.02-1 and 104.02-2, there is no significant change in the character of the work and the change is considered a minor change. The County will pay for minor changes in the Work at the unit bid price.

E. Eliminated Items

The County may partially or completely eliminate contract items.

The County will only make an adjustment to compensate the Contractor for the reasonable cost incurred in preparation to perform significantly changed work as set forth in 104.02D or work completely eliminated prior to the date of the Engineer's written order to significantly change or completely eliminate the Work. The

adjustment will be determined according to 109.04 and 109.05. Such payment will not exceed the price of the Contract Item.

Any adjustment in contract time because of changes will be made in accordance with the provisions of 108.06.

The County will not seek a savings for maintaining traffic, mobilization, and construction layout stakes items for Eliminated Items of Work, unless there is a significant change.

F. Extra Work

The Contractor shall perform Extra Work in accordance with the specifications and as directed by the Engineer. Extra Work will be paid for as provided under 109.05. Time extensions, if warranted, will be determined according to 108.06.

No Extra Work shall be performed before Cuyahoga County has entered into a Supplemental Agreement in writing for such Extra Work as required by ORC section 5555.69. The provisions of this section are subject to the rules and limitations of ORC section 5555.69 and current Cuyahoga County policies relating thereto.

G. Unilateral Authority to Pay.

The County has unilateral authority to pay the contractor sums it determines to be due to the contractor for work performed on the project. This unilateral authority to pay by the County does not preclude or limit the rights of the County and the contractor to negotiate and agree to the amounts to be paid to the contractor.

104.03 Rights in and Use of Materials Found on the Work

The Contractor, with the approval of the Engineer, may use on the project such stone, gravel, sand, or other material determined suitable by the Engineer as may be found in the excavation and will be paid both for the excavation of such materials at the corresponding contract unit price and for the pay item for which the excavated material is used. He shall replace at his own expense with other acceptable material all of that portion of the excavation material so removed and used which was needed for use in the embankments, backfills, approaches, or otherwise. No charge for the materials so used will be made against the Contractor. The Contractor shall not excavate or remove any material from within the highway location which is not within the grading limits, as indicated by the slope and grade lines, without written authorization from the Engineer.

Unless otherwise provided, the material from any existing old structure may be used temporarily by the Contractor in the erection of the new structure. Such material shall not be cut or otherwise damaged except with the approval of the Engineer.

The Contractor shall obtain written permission from the Engineer according to 107.11 (A)

104.04 Cleaning Up

The Contractor shall maintain the project in a presentable condition. The highway, including stream channels and banks within the right-of-way at drainage structures, and all borrow and waste areas, storage sites, temporary plant sites, haul roads and other ground occupied by the Contractor in connection with the Work shall be cleaned of all rubbish, excess materials, temporary structures, and equipment. These areas shall have suitable vegetative cover established by seeding and mulching in accordance with 659 and all parts of the Work shall be left in a condition acceptable to the Engineer. The cost of cleanup shall be incidental to other items and no separate payment shall be made, however, ten percent of the payment for the mobilization item, if included, will be withheld until performance under this section is complete. See 624.04 (C).

104.05 Contractor Notification, Continuations of Work, Disputes and Claims.

This specification represents the Cuyahoga County Department of Public Works' claims procedure for highway construction projects and shall be utilized by all contractors who seek additional money or time from Cuyahoga County in the form of a claim. Contractors are advised that they must exhaust this claims procedure prior to filing an action in court.

1. Notice of Claim

Mitigation of any issue, whether caused by the County, Contractor, third-party or an intervening event, is a shared contract and legal requirement. Mitigation efforts include, but are not limited to, re-sequencing work activities, acceleration, and substitution of materials. The Contractor and Engineer must explore and discuss potential mitigation efforts in a timely manner.

Contractor Initial Oral Notification. Provide immediate oral notification to the Engineer upon discovering a circumstance that may require a revision to the Contract Documents or may result in a dispute. Upon notification, the Engineer will attempt to resolve the identified issue as quickly as possible.

Contractor Written Early Notice. If the Engineer has not resolved the identified issue within 2 working days after receipt of the oral notification, provide a written notice to the Engineer of any circumstance that may require a revision to the Contract Documents or may result in a dispute. This early notice must be given by the end of the second working day following the occurrence of the circumstance.

The Engineer and Contractor shall maintain records of labor, equipment, and materials used on the disputed work or made necessary by circumstance. Such records will begin when early notice is received by the Engineer. Tracking such information is not an acknowledgement that the County accepts responsibility for payment of this disputed work.

Continuation of Work. Continue with all Work, including that which is in dispute. The County will continue to pay for Work.

Notice of Claim. In the event, after submission of Early Written Notice, the Contractor and the Engineer disagree as to the responsibilities of the parties under the contract concerning the circumstances, then the Engineer shall promptly advise the Contractor in writing of the Engineer's position. The Contractor shall submit to the Engineer in writing within ten (10) calendar days after the receipt of the Engineer's position, a Notice of Claim setting forth insofar as possible, the basis and the nature of the claim. The failure of the Contractor to submit a Notice of Claim within ten (10) calendar days constitutes a waiver of his right to any claim due to the "circumstances." The Engineer shall acknowledge receipt of the Notice of Claim in writing within ten (10) calendar days of receipt of the Notice of Claim from the Contractor. The failure to so acknowledge by the Engineer will not effect the validity of the claim.

Estimates of Additional Costs and/or Time. Within ten (10) calendar days of the date of submission of the Notice of Claim, the Contractor shall submit in writing to the Engineer the Contractor's generalized estimate of the additional costs to be incurred and any additional time required. Some cost and time factors may be unknown and it is understood that this estimate may be based on incomplete information. If the Contractor fails to submit his estimate of additional costs and/or any additional time required within ten (10) calendar days or such later date as agreed to with the Engineer, the claim is abandoned and waived.

2. Submission of Claim:

Time for Submission. As promptly as possible following the submission of the Notice of Claim, but in no event later than sixty (60) calendar days after substantially all the Contractor's costs are known to a reasonable certainty, the Contractor shall submit the claim to the Engineer. If the Contractor fails to submit the claim within said sixty (60) calendar days or such later date as agreed to with the Engineer, the claim is abandoned and waived.

Content of Claim. The claim shall be in sufficient detail to enable the Engineer to determine the basis for entitlement and the resulting costs. The following minimum information must accompany each claim submitted:

1. Detailed factual statement of the claim providing all necessary dates, locations, and items of Work affected by the claim.
2. The date actions resulting in the claim occurred or conditions resulting in the claim became evident.
3. A copy of the Contractor's "Notice of Claim" filed by the Contractor for the specific claim.
4. The name, title, and activity of each Cuyahoga County Department of Public Works employee knowledgeable about the facts that give rise to such claim.
5. The name, title, and activity of each Contractor employee knowledgeable about the facts that give rise to such claim.
6. The specific provisions of the Contract that support the claim and a statement why the provisions support the claim.
7. The identification of any pertinent documents and the substance of any material oral communications relating to the claim.
8. A statement whether the additional compensation or extension of time is based on the provisions of the Contract or an alleged breach of Contract.
9. If an extension of time is also sought, the specific days for which it is sought and the basis for such claim as determined by an analysis of the construction schedule.
10. The total additional compensation sought determined by tabulated specific costs per element of the claim and the basis used to determine the specific costs.

Any claim, which in the opinion of the Engineer is deficient in documentation shall either be returned to the Contractor with comments regarding the deficiencies or the Engineer may, at his option, request additional information. The Contractor shall either furnish the additional information requested by the Engineer within fifteen (15) calendar days of the request, or such later time as agreed to with the Engineer, or state in writing to the Engineer that he cannot or will not furnish such additional information, or the claim is abandoned and waived.

3. Review of Claims

All claims submitted will be subject to review by the Engineer. The Contractor, Subcontractor(s), or Supplier(s) shall cooperate with the Engineer and shall provide at a minimum, access to the following documents:

1. Daily time sheets and foreman's daily reports.
2. Union agreements, if any.
3. Insurance, welfare, and benefits records.
4. Payroll register.
5. Earnings records.
6. Payroll tax returns.
7. Material invoices, purchases orders, and all material and supply acquisition Contracts.
8. Material cost distribution worksheets.
9. Equipment records (list of company equipment, rates, etc.).
10. Vendor rental agreements and subcontractor invoices.
11. Subcontractor payment certificates.
12. Canceled checks (payroll and vendors).
13. Job cost report.
14. Job payroll ledger.
15. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals.
16. Cash disbursements journal.
17. Financial statements for all years reflecting the operations on this project.

18. Income tax returns whether such records are maintained by the company involved, its accountant, or others.
19. Depreciation records on all company equipment.
20. All other documents used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment.
21. All documents that reflect the Contractor's actual profit and overhead during the time the project was being performed and for each of the five years prior to the commencement of this project.
22. All documents related to the preparation of the Contractor's bid including the final calculations on which the bid was based.
23. Worksheets used to prepare the claim, establishing the cost components for items of the claim including, but not limited to, labor, benefits and insurance, materials, equipment, subcontractors, and all documents that establish the time periods, individuals involved, the hours and the rates for the individuals.

4. Decision of the Cuyahoga County Department of Public Works

The Cuyahoga County Department of Public Works shall render a written decision within sixty (60) calendar days of the latest date of receipt of the claim or the date of receipt of the supplemental information requested by the Engineer. The decision shall have the prior approval of Cuyahoga County.

The decision of the Cuyahoga County Department of Public Works, having the approval of Cuyahoga County, is administratively final. However, a Contractor who disagrees with the decision may pursue any available legal remedies.

5. No Contract Adjustment Without Notification.

Except for the adjustments provided in Table 104.02-2, no contract adjustment for the benefit of the Contractor will be allowed unless the Contractor has given the proper Oral Notice, Early Written Notice and/or Notice of Claim.

104.06 Maintenance of Traffic

When construction interferes with the normal use of the highway, temporary traffic facilities shall be provided. For local traffic, facilities for pedestrian and vehicular ingress and egress shall be provided at all times for the property adjacent to the Work. For through traffic, the special provisions or plans will designate whether the highway will be closed with detours, temporary roads and run-arounds provided or whether traffic will be maintained through all or portions of the project.

Temporary traffic facilities shall be furnished, maintained, and subsequently removed and paid for in accordance with the provisions of 614 Maintaining Traffic and 615 Roads and Pavements for Maintaining Traffic. The provisions of these items and this section shall not in any way relieve the Contractor of any of his legal responsibilities or liabilities for the safety of the public. The attention of the bidder is directed to the provisions of 107.07 of these specifications and 5517.03, ORC.

Temporary traffic control devices and facilities shall be furnished, erected, maintained and paid for in accordance with the provisions of 614 Maintaining Traffic. All traffic control devices shall conform to the Ohio Manual as required under Section 4511.09 ORC. The provisions of this item and this section shall not in any way relieve the Contractor of any of his legal responsibilities or liabilities for the safety of the public.

105 CONTROL OF WORK

105.01 Authority of the Engineer

The Engineer will decide all questions which may arise as to the quality and acceptability of materials furnished and quantity of Work performed and as to the rate of progress of the Work; all questions which may arise as to the interpretation of the Contract Documents; all questions as to the acceptable fulfillment of the contract on the part of the Contractor, and as to compensation.

The Engineer will have the authority to suspend the Work wholly or in part due to the failure of the Contractor to correct conditions unsafe for the workers or the general public, for failure to carry out provisions of the contract and to carry out orders. The Engineer may suspend the Work for such periods as deemed necessary due to adverse weather conditions, for conditions considered adverse to the prosecution of the Work or for any other condition or reason deemed to be in the public interest.

The Engineer's acceptance does not constitute a waiver of the County's right to pursue any and all legal remedies for defective work or work performed in an unworkman like manner.

105.02 Plans and Working Drawings

The plans show details of structures, the lines, grades, typical cross sections of the roadway and the location and design of structures. The Contractor shall keep one set of project plans available at the project site.

The plans shall be supplemented by working drawings when required to control the Work adequately. Working drawings shall be furnished by the Contractor. No changes shall be made to the plans or working drawings except as approved by the Engineer.

Specific items of Work shall require working drawings. These requirements are stated in the specification section that is applicable to the item of Work. Working drawing shall not be prepared until the applicable field and plan elevations, dimensions, and geometries have been verified by the Contractor. Where Work consists of repairs, extension, or alteration of existing structures, the Contractor shall make such measurements of original construction as may be required to accurately join old and new Work. Any measurements which may appear upon the plans to indicate the extent and nature of such repair or extension shall not relieve the Contractor of this responsibility.

Unless otherwise indicated, working drawings will be reviewed by the Engineer for conformance with the contract. Following the Engineer's review of each submittal of working drawings, the Engineer will indicate his/her action taken in response to the submittal by a written response to the Contractor showing action as follows:

- A. "ACCEPTED", which means accepted for construction, fabrication or manufacture, subject to the provision that the Work shall be in accordance with the requirements of the contract. Final acceptance of the Work shall be contingent upon such compliance;
- B. "ACCEPTED AS NOTED", which means unless otherwise noted on the drawings approved for construction, fabrication or manufacture, subject to the provision that the Work shall be carried out in compliance with all comments or corrections indicated and in accordance with requirements of the contract. Final acceptance of Work shall be contingent upon such compliance. If also marked "RESUBMIT", accepted as noted is valid, and a corrected submittal of the drawings is required; or
- C. "NOT ACCEPTED." The County does not accept the submittal. The submittal does not conform to Contract requirements. Do not begin construction, fabrication, or manufacture of Work included in the submittal. Revise the submittal to comply with County comments or corrections and Contract requirements and provide the revised submittal to the County for another review.

The Engineer's acceptance shall not relieve the Contractor of responsibility under the contract for the successful completion of the Work. Any Work done or materials ordered prior to the approval of such working drawings shall be at the sole risk of the Contractor. The cost of furnishing all working drawings shall be considered as included in the contract unit price for one or more of the contract items.

105.03 Conformity with Contract Documents.

All Work performed and all materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions, and material requirements shown on the plans or indicated in the specifications.

In the event the Engineer finds the materials or the finished product in which the materials are used not within reasonably close conformity with the plans and specifications but that reasonably acceptable Work has been produced, he shall then make a determination if the Work shall be accepted and remain in place. In this event, the Engineer will document the basis of acceptance by contract modification which will provide for an appropriate adjustment in the contract price for such Work or materials as he deems necessary to conform to his determination based on engineering judgment.

In the event the Engineer finds the materials or the finished product in which the materials are used or the Work performed are not in reasonably close conformity with the plans and specifications and have resulted in an inferior or unsatisfactory product, the Work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

105.04 Coordination of the Contract Documents. The Contract Documents are those defined in 101.03. A requirement appearing in one of these documents is as binding as though it occurs in all. The Engineer will resolve discrepancies using the following descending order of precedence:

- A. Addenda.
- B. Proposal Package and Special Provisions.
- C. Proposal Notes
- D. Plans.
- E. Supplemental Specifications.
- F. Standard Construction Drawings.
- G. Cuyahoga County Engineer General Provisions
- H. Standard Specifications (ODOT Itemized CMS).

Immediately notify the Engineer upon discovering any latent error or omission in the Contract Documents.

105.05 Cooperation by Contractor

The Contractor will be supplied with two sets of plans and Contract Documents, one set of which the Contractor shall keep available on the Work at all times.

The Contractor shall give the Work the constant attention necessary to facilitate the progress thereof. He shall cooperate with the Engineer, his inspectors, and all other contractors of any agency in every way possible.

105.06 Superintendent

The Contractor shall have on the Work at all times, as his agent, a competent superintendent capable of reading and thoroughly understanding the plans and specifications and thoroughly experienced in the type of Work being performed, who shall receive instructions from the Engineer or his authorized representatives. The superintendent shall have full authority to execute orders or directions of the Engineer without delay, and to promptly supply such materials, equipment, tools, labor, and incidentals as may be required. Such

superintendence shall be furnished irrespective of the amount of work sublet. The superintendent shall be in charge of all construction operations regardless of who performs the Work.

105.07 Cooperation with Utilities.

Unless otherwise provided for by the Contract Documents, the County will direct the utility owners to relocate or adjust water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals, and all other utility appurtenances within the limits of the proposed construction at no cost to the Contractor.

The Contract Documents will indicate various utility items and indicate a time frame or date when the County expects the owners to complete utility relocation or adjustment. Provide utility owners adjusting facilities during construction with adequate notification of the scheduled Work to prevent conflict with the Contractor's schedule of operations.

When bidding, consider all permanent and temporary utility appurtenances in present and relocated positions as shown in the Contract Documents.

According to ORC 153.64 and at least 2 Workdays prior to commencing construction operations in an area that may affect underground utilities shown on the Plans, notify the Engineer, the registered utility protection service, and the owners that are not members of the registered utility protection service.

The owner of the underground utility shall, within 48 hours, excluding Saturdays, Sundays, and legal holidays, after notice is received, start staking, marking, or otherwise designating the location, course, ± 2 feet (± 0.6 m), together with the approximate depth of the underground utilities in the construction area.

If the utility owners fail to relocate or adjust utilities as provided for in the Contract Documents and the Contractor sustains losses that could not have been avoided by the judicious handling of forces, equipment, and plant, or by reasonable revisions to the schedule of operations, then the Engineer will adjust the Contract according to 108.06 and 109.05.

105.08 Cooperation Between Contractors

Cuyahoga County reserves the right at any time to contract for and perform other or additional Work on or near the Work covered by the contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct his Work so as not to interfere with or hinder the progress or completion of the Work being performed by other contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with his contract and shall protect and save harmless the Cuyahoga County and the Cuyahoga County Department of Public Works from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced by him because of the presence and operations of other contractors working within the limits of the same project.

The Contractor shall arrange his Work and shall place and dispose of the materials being used so as not to interfere with the operations of the other contractors within the limits of the same project. He shall join his Work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

105.09 Authority and Duties of Project Engineer or Supervisor and Inspector/Technician

- A. As the direct representative of the Cuyahoga County Department of Public Works, the project engineer or supervisor has immediate charge of the engineering details of his/her construction project. The project engineer or supervisor is responsible for the administration and satisfactory completion of the project. The project engineer or supervisor has the authority to reject defective material and to suspend any Work that is being improperly performed.

- B. Inspectors/Technicians are authorized to inspect the Work and the preparation, fabrication, or manufacture of materials. Inspectors are not authorized to alter or waive requirements of the Contract Documents. Inspectors are authorized to notify the Contractor of Work that does not conform to the Contract; reject materials that do not conform to Specification requirements; and until the issue is decided by the Engineer, suspend portions of the Work if there is a question regarding the Contract Documents, use of unapproved material, or safety. Inspectors are not obligated or authorized to provide direction, superintendence, or guidance to the Contractor, its crew, its subcontractors, or suppliers to accomplish the Work.

Any action or inaction of the Inspector/Technician does not constitute a waiver of the County's right to pursue any and all legal remedies for defective work or work performed by the Contractor in an unworkman like manner.

105.10 Inspection of Work

All materials and each part or detail of the Work shall be subject to inspection by the Engineer. The Engineer or his representative shall be provided access to all parts of the Work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection. The Contractor shall notify the Engineer at least 24 hours prior to all required inspections.

If the Engineer requests it, the Contractor, at any time before acceptance of the Work, shall remove or uncover such portions of the finished Work as may be directed. After examination, the Contractor shall restore said portions of the Work to the standard required by the specifications. Should the Work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as Extra Work per 109.05; but should the Work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed, will be at the Contractor's expense.

The County shall have the discretion to dictate the level of inspection for any item of work. The Contractor bears sole responsibility for the quality of the work and compliance with the Contract regardless of the County's level of inspection.

Any Work done or materials used without supervision or inspection by an authorized Cuyahoga County Department of Public Works representative may be ordered removed and replaced at the Contractor's expense. Failure to reject any defective Work or material shall not in any way prevent later rejection when such defects are discovered, or obligate Cuyahoga County to final acceptance.

When any unit of government or political subdivision or any railroad corporation is to pay a portion of the cost of the Work covered by this contract, its representatives shall have the right to inspect the Work. Such inspection shall in no sense make any unit of government or political subdivision or any railroad corporation a party to this contract, and shall in no way interfere with the rights of either party hereunder.

105.11 Removal of Defective and Unauthorized Work.

Work that does not conform to the requirements of the Contract is defective.

Unless the County formally accepts defective Work according to 105.03, immediately remove and replace defective Work.

Unauthorized Work is Work done contrary to the instructions of the Engineer, beyond the plan lines, or any extra work done without the County's permission. The County will not pay for unauthorized Work. The Engineer may order the Contractor to remove or replace unauthorized Work at no expense to the County.

If the Contractor fails to comply with the Engineer's orders under the provisions of this subsection, the Engineer may correct or remove and replace defective or unauthorized Work and deduct the costs from the Contract Price.

105.12 Load Restrictions

The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads. A special permit will not relieve the Contractor of liability for damage which may result from the moving of equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or the roadway or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base or structure before the expiration of the curing period. In no case shall legal load limits be exceeded unless permitted in writing by the local authority or authorities having jurisdiction and control of any road, street or bridge the Contractor proposes to use. The Contractor shall be responsible for all damage done by his equipment. Comply with Section 501.05.B6

105.13 Haul Roads

Prior to using any roads or streets for hauling equipment or materials, the Contractor shall first notify the Engineer, in writing, as to the specific roads or streets he desires to use.

The contractor shall obtain written permission from the local authority having jurisdiction and control of any road or street he/she proposes to use as a haul road.

If, during the course of construction, it is determined by the Engineer that damages have occurred to haul roads or streets as a direct result of the proper use thereof for the hauling of equipment or materials, then the Engineer may order the Contractor to make immediate temporary repairs so as to assure reasonably normal conditions for the traveling public in so far as is practicable. Payment for such repairs shall be in accordance with the applicable provisions of 109.04 or 109.05.

The Contractor shall save the Cuyahoga County and the Cuyahoga County Department of Public Works harmless from any and all disputes between the Contractor and the local authorities regarding the use or continued use of said haul roads or streets, and from any claim for delaying the project or otherwise hindering the fulfillment of the contract on the part of the Contractor.

105.14 Maintenance During Construction

The Contractor shall maintain the Work during construction and until the project is accepted according to 109.11 or 109.12. This maintenance shall constitute continuous and effective Work prosecuted day by day, with adequate equipment and forces to the end that the roadway or structures are kept in satisfactory condition at all times. The Contractor is responsible for damage done by its equipment.

Maintain the previous courses of subgrade during all construction operations, when placing a course upon other courses of embankment, base, subgrade, concrete or asphalt pavement, or other similar items previously constructed. This maintenance includes, but is not limited to draining, re-compacting, re-grading, or if destroyed, the removal of Work previously accepted by the County.

Maintain Post Construction Storm Water Best Management Practice (BMP) features. Prevent sediment laden surface water from coming in contact with the BMP features during construction.

All cost of maintenance Work during construction and before the project is accepted shall be included in the unit prices bid on the various pay items and the Contractor will not be paid an additional amount for such Work.

105.15 Failure to Maintain Roadway or Structure

If the Contractor, at any time, fails to comply with the provisions of 105.14, the Engineer will immediately notify the Contractor of such noncompliance. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the Engineer may immediately proceed to maintain the project, and the entire cost of this maintenance will be deducted from monies due or to become due the Contractor on his contract.

105.16 Borrow and Waste Areas

The allowed use of Project Right-of-Way and other County property for borrow and waste is detailed in 104.03 and 107.11.

Whether materials are borrowed or wasted in borrow or waste areas or, if allowed by the Contract Documents, wasted on the Project site, comply with the requirements of this subsection:

Prior to beginning borrow or wasting operations, obtain the Engineer's written approval of a detailed operation plan that addresses the following concerns:

- A. Control of drainage water.
- B. Cleanup, shaping, and restoration of disturbed areas.
- C. Disposal of regulated materials.
- D. Avoidance of regulated areas.
- E. Excavation and filling of waste and borrow areas.
- F. Saving of topsoil.
- G. Temporary Sediment and Erosion Control BMPs required for compliance under the Clean Water Act, Ohio Water Pollution Control Act, (OWPCA) (ORC Chapter 6111) and the NPDES permit.

Perform all engineering, including any field investigation, necessary to ensure long term stability of all side slopes and foundations of all borrow and waste areas. Furnish a certification by a Registered Engineer attesting to the stability of all borrow and waste areas. All damage resulting from the instability of borrow and waste areas, the removal of borrow materials, the placement of waste materials, or the hauling of material to and from these areas is the sole responsibility of the Contractor. Repairs to approved haul roads will be made in accordance with 105.13.

Ensure that all side slopes of all borrow and waste areas are beyond the clear zone for the highway as defined by the current version of ODOT's Location and Design Manual.

Ensure that all side slopes of all waste areas do not reduce horizontal sight distance as defined by the current version of ODOT's Location and Design Manual.

Have the proposed borrow and waste areas reviewed by an environmental consultant that is pre-qualified by ODOT for ecological work. Have the environmental consultant certify that the proposed borrow and waste operations will not impact the "Waters of the United States" or an isolated wetland. If consultant certification is not provided, obtain the 404/401 permits necessary to perform the operations as proposed. Have the environmental consultant certify that the work conforms to the requirements of the permit(s). Provide all documentation submitted to obtain the appropriate permit(s) and a copy of the permit(s) to the ODOT's Office of Environmental Services.

If burning is permitted under the OAC-3745-19 and ORC 1503.18, submit a copy of the Ohio EPA permit and the Ohio DNR permit to the Engineer and copies of all information used to obtain the permit.

All damage to surrounding property resulting from the instability of borrow and waste areas, the removal of borrow materials, the placement of waste materials, or the hauling of material to and from these areas is the sole responsibility of the Contractor.

Prior to the disposal of waste materials, submit to the County an executed copy of the Contract or permission statement from the property owner. The Contract or permission statement must indicate that the waste materials are not the property of the County. Further, it must expressly state that the County is not a party to the Contract

or permission statement and that the Contractor and property owner will hold the County harmless from claims that may arise from their contract or permission statement.

Restoration of all borrow or waste areas includes cleanup, shaping, replacement of topsoil, and establishment of vegetative cover by seeding and mulching according to 104.04 and Item 659. Ensure the restored area is well drained unless approval is given by the Engineer to convert a pit area into a pond or lake, in which case confine restoration measures to the disturbed areas above the anticipated normal water level. The cost of Work described herein is incidental to the Contract.

For waste sites shown on the plan, the plan will indicate if the clearances have or have not been obtained for the project right-of-way locations. No extension of time or additional compensation will be paid for any delays due to not having the written permit(s) to waste in a floodplain.

The allowed use of Project Right-of-Way and other County owned property for borrow or waste is detailed in 104.03 and 107.11.

Borrow and Waste Area shall adhere to 107.10.

105.17 Construction and Demolition Debris.

OAC-3745-37, OAC-3745-400, and ORC Chapter 3714 regulates the use and disposal of construction and demolition debris. Notify the local Board of Health or the local Ohio EPA office 7 days before placing clean hard fill off the Right-of-Way. Submit copies of this notification to the Engineer.

Legally dispose of debris containing wood, road metal, or plaster at a licensed construction and demolition debris site.

Under the regulations cited above the disposal of brush, trees, stumps, tree trimmings, branches, weeds, leaves, grass, shrubbery, yard trimmings, crop residue, and other plant matter is restricted. If allowed by the Contract Documents, the Contractor may waste brush, trees, stumps, tree trimming, branches, weeds, leaves, grass, shrubbery, yard trimmings, crop residue, and other plant matter within the Right-of-Way. Otherwise, submit a plan and any required permits to legally dispose of these materials off the Right-of-Way to the Engineer. Provide all documents submitted to obtain this permit to the Engineer.

If the Project contains garbage or solid and hazardous waste, the Contract Documents will detail the removal of these items.

When the wasting of clean hard fill is allowed, comply with all the requirements of this subsection and 105.16.

105.18 Acceptance. The County will accept Work according to 109.091 and 109.12 or completed sections of the Project according to 109.11.

106 CONTROL OF MATERIAL

106.01 Source of Supply and Quality Requirements

The materials used on the Work shall meet all requirements of the contract. In order to expedite the inspection and testing of materials, the Contractor shall notify the Engineer of his proposed sources prior to delivery. At the option of the Engineer, materials may be approved at the source of supply before delivery is started. If it is found after trial that the sources of supply do not produce the specified materials, the Contractor shall furnish from other sources without adjustment to the contract price or completion date.

106.02 Samples, Tests, Cited Specifications

All materials will be inspected and in compliance with the specified requirements determined by the Engineer before they are incorporated into the Work. Materials may be sampled and tested by the Engineer or certifications required as designated herein. Certifications or samples are required as directed for materials not covered herein. Unless otherwise designated, tests in accordance with AASHTO, ASTM or the methods on file in the office of the Cuyahoga County Department of Public Works will be made by and at the expense of the Cuyahoga County Department of Public Works. Samples will be taken in accordance with the Cuyahoga County Department of Public Works' procedures by a qualified representative of the Cuyahoga County Department of Public Works. References included in these specifications to AASHTO, ASTM, Federal Specifications and to other referenced specifications shall be the test method or specification as amended to its issue date next preceding the bid opening date. Materials being used are subject to inspection, test or rejection at any time prior to incorporation into the Work. Copies of tests made by the Engineer will be furnished to the Contractor's representative upon request. The Contractor, in all cases, shall furnish the required samples and specified materials certifications at no expense to the County other than provided in 109.03.

Transports and distributors hauling bituminous material shall be equipped with an approved submerged bituminous material sampling device.

106.03 Small Quantities and Materials for Temporary Application.

The Engineer may accept small quantities and materials for temporary application that are not intended for permanent incorporation in the Work. The Engineer may accept these small quantities and materials for temporary application in either of the following cases:

- A. Where similar materials from the same source have recently been approved.
- B. Where the materials, in the judgment of the Engineer, will serve the intended purpose.

106.04 Plant Sampling and Testing Plan

The Engineer may undertake the inspection of materials at the source. In the event plant sampling and testing is undertaken, the following conditions shall be met:

- (a) The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom he has contracted for materials.
- (b) The Engineer shall have full entry at all times to such parts of the plant as may concern the manufacture or production of the materials being furnished. Agree to make available to the County, upon request, all documentation and inspection requirements of the ODOT TE-24 plant sampling and testing plan.
- (c) If required by the Engineer, the Contractor shall arrange for an approved building for the use of the inspector; such building to be located conveniently near the plant, independent of any building used by the material producer.
- (d) Adequate safety measures shall be provided and maintained.

It is understood that the Cuyahoga County Department of Public Works reserves the right to retest all materials prior to incorporation into the Work which have been tested and accepted at the source of supply after the same have been delivered and to reject all materials which, when retested, do not meet the requirements of these specifications, or those established for the specific project.

106.05 Storage of Materials

Materials shall be so stored as to assure the preservation of their quality and fitness for the Work. Stored materials, even though approved before storage, may again be inspected prior to their use in the Work. Stored materials shall be located so as to facilitate their prompt inspection. Approved portions of the right-of-way may be used for storage purposes and for the placing of the Contractor's plant and equipment, but any additional space required therefore must be provided by the Contractor at his expense. Private property shall not be used for storage purposes without written permission of the owner or lessee, and if requested by the Engineer copies of such written permission shall be furnished him. All storage sites shall be restored to their original condition by the Contractor at his expense. The Contractor and property owner will hold the County harmless from claims that may arise from their contract or permission statement. This shall not apply to the stripping and storing of topsoil, or to other materials salvaged from the Work.

Areas used to Store Materials shall adhere to 107.10.

106.06 Handling Materials

All materials shall be handled in such manner as to preserve their quality and fitness for the Work. Aggregates shall be transported from the storage site to the Work in tight vehicles so constructed as to prevent loss or segregation of materials after loading and measuring in order that there may be no inconsistencies in the quantities of materials intended for incorporation in the Work as loaded, and the quantities as actually received at the place of operations.

106.07 Unacceptable Materials

All materials not conforming to the requirements of the specifications at the time they are used shall be considered unacceptable and shall be removed immediately from the site of the Work unless otherwise instructed by the Engineer. No materials, the defects of which have been corrected, shall be used until approval has been given. Upon failure on the part of the Contractor to comply immediately with any order of the Engineer made under the provisions of this section, the Engineer shall have authority to remove and replace defective materials and to deduct the cost of removal and replacement from any monies due or to become due to the Contractor.

106.08 Material Furnished by the Cuyahoga County Department of Public Works

The Contractor shall furnish all materials required to complete the Work, except when otherwise provided in the proposal. Material furnished by the Cuyahoga County Department of Public Works will be delivered or made available to the Contractor as provided for in the Cuyahoga County Engineer Specification Booklet or in the plans.

The cost of handling and placing all materials after they are delivered to the Contractor shall be considered as included in the contract price for the item in connection with which they are used.

The Contractor will be held responsible for all material delivered to him and deductions will be made from any monies due him to make good any shortages and deficiencies, from any cause whatsoever, and for any damage which may occur after such delivery, and for any demurrage charges.

106.09 Steel and Iron Products Made in the United States.

Furnish steel and iron products that are made in the United States according to the applicable provisions of Federal regulations stated in 23 CFR 635.410 and State of Ohio laws, and ORC 153.011 and 5525.21. "United States" means the United States of America and includes all territory, continental or insular, subject to the jurisdiction of the United States.

A. Federal Requirements. All steel or iron products incorporated permanently into the Work must be made of steel or iron produced in the United States and all subsequent manufacturing must be performed in the United States. Manufacturing is any process that modifies the chemical content; physical shape or size; or final finish of a product. Manufacturing begins with the initial melting and mixing, and continues through the bending and coating stages. If a domestic product is taken out of the United States for any process, it becomes a foreign source material.

B. State Requirements. All steel products used in the Work for load-bearing structural purposes must be made from steel produced in the United States. State requirements do not apply to iron.

C. Applications.

1. When the Work is Federally funded both the Federal and State requirements apply. This includes all portions of the Work, including portions that are not Federally funded.
2. When the Work has no Federal funds, only the State requirements apply.

D. Exceptions. When the work is Federally funded, ODOT may grant specific written permission to use foreign steel or iron products in bridge construction and foreign iron products in any type of construction. When the work is not Federally funded, the County may grant specific written permission to use foreign steel or iron products in bridge construction and foreign iron products in any type of construction. ODOT and/or the County may grant such exceptions under either of the following conditions:

1. The cost of products to be used does not exceed 0.1 percent of the total Contract cost, or \$2,500, whichever is greater. The cost is the value of the product as delivered to the project.
2. The specified products are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet the requirements of the Contract Documents. ODOT and/or the County may require the Contractor to obtain letters from three different suppliers documenting the unavailability of a product from a domestic source, if the shortage is not previously established.

E. Proof of Domestic Origin. Furnish documentation to the Engineer showing the domestic origin of all steel and iron products covered by this section, before they are incorporated into the Work. Products without a traceable domestic origin will be treated as a non-domestic product.

106.10 Qualified Product List.

The County may use Qualified Product Lists (QPL) for approval of manufactured materials. The Ohio Department of Transportation's (ODOT's) Office of Materials Management (OMM) will maintain the QPL and standard procedure for the QPL process. Inclusion of a material onto the QPL will be determined by OMM with support from other ODOT offices. To be kept on the QPL, manufacturers must recertify their material according to ODOT's standard procedure by January 1 of each year. When a material requires QPL acceptance, only provide materials listed on the QPL at the time of delivery of the material to the project. Provide the Engineer documentation according to ODOT's standard procedure that, at the time of delivery, the material provided is on the QPL.

107 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107.01 Laws to be Observed.

Stay fully informed of all Federal and State laws, all local laws, ordinances, and regulations, and all orders and decrees of authorities having any jurisdiction or authority that affect those engaged or employed on the Work, or that affect the conduct of the Work. Observe and comply with all such laws, ordinances, regulations, orders, and decrees. The Contractor shall protect and indemnify Cuyahoga County, the Cuyahoga County Department of Public Works and their representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's employees, subcontractors, or agents.

The Contractor agrees that in the hiring of employees for the performance of Work under this Contract or any subcontract hereunder, neither the Contractor, the subcontractor, nor any person acting on behalf of such Contractor or subcontractor shall, by reasons of race, religion, color, sex, or national origin, discriminate against any citizen of the United States in the employment of labor or workers, who is qualified and available to perform the Work to which the employment relates.

Neither the Contractor, the subcontractor, nor any person on their behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of Work under this Contract on account of race, religion, color, sex, or national origin.

Comply with OAC-4123:1-3, entitled "Specific Safety Requirements of the Industrial Commission of Ohio Relating to Construction," as amended, and with the Federal Occupational Safety and Health Act of 1970 and Code of Federal Regulations, Title 29, Chapter XVII, Part 1926 and as amended.

107.02 Permits, Licenses and Taxes

The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the Work.

The Contractor shall not be required to pay any Manufacturer's Excise Tax or Ohio Sales Tax on materials to be incorporated into the Work. Cuyahoga County shall issue to the Contractor the Certificate of Exemption marked "State of Ohio-Political Subdivision #29". The Contractor shall pay all other taxes required by law. The lump sum and unit prices bid shall be exclusive of all exempt taxes and shall be so construed.

107.03 Patented Devices, Materials, and Processes

If the Contractor employs any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the Surety shall indemnify and save harmless Cuyahoga County, any affected third party or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material, process, or any trademark or copyright, and shall indemnify Cuyahoga County for any costs, expenses, and damages which it may be obliged to pay by reason of any infringement, at any time during the prosecution or after the completion of the Work.

In the case of patented pavements and wearing courses where royalties, licensing and proprietary service charges, exacted or to be exacted by the patentees, are published and certified agreements are filed with the Cuyahoga County Department of Public Works, guaranteeing to prospective bidders free unrestricted use of all such proprietary rights and trade-marked goods upon payment of such published charges, such patented pavements may be specifically designated in the proposal and competition secured upon the item exclusive of the patent or proprietary charges.

107.04 Restoration of Surfaces Opened by Permit

The right to construct or reconstruct any utility service in the highway or street or to grant permits for same, at any time, is hereby expressly reserved by the Cuyahoga County Department of Public Works for the proper authorities of the municipality in which the Work is done and the Contractor shall not be entitled to any damages either for the digging up of the street or for any delay occasioned thereby.

Any individual, firm, or corporation wishing to make an opening in the highway must secure a permit. The Contract shall allow parties bearing such permits, and only those parties, to make openings in the highway. When ordered by the Engineer, the Contractor shall make in an acceptable manner all necessary repairs due to such openings and such necessary Work will be paid for as Extra Work, or as provided in these specifications, and will be subject to the same conditions as original Work performed.

107.05 Federal-Aid Provisions.

When the United States Government pays for all or any portion of the Project's cost, the Work is subject to the inspection of the appropriate Federal agency.

Such inspections will not make the Federal Government a party to this Contract. The inspections will in no way interfere with the rights of either party to the Contract.

107.06 Sanitary Provisions

The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his/her employees and Cuyahoga County Department of Public Works representatives as may be necessary to comply with the requirements of the State and local Boards of Health, or of other authorities having jurisdiction.

107.07 Public Convenience and Safety

The Contractor shall at all times so conduct his Work as to assure the least possible obstruction to traffic. The safety and convenience of the general public and the residents along the highway and the protection of persons and property shall be provided for by the Contractor as specified under subsection 104.05. The attention of the bidder is directed to the provisions of 5543.17, ORC. Do not close any highways or streets unless specifically allowed by the contract.

The Contractor shall provide and maintain safeguards, safety devices and protective equipment and take any other needed actions as may be necessary to protect the public and property in connection with the Work. The presence of barricades, lights or other traffic control devices, provided and maintained by any party other than the Contractor, shall not relieve the Contractor of this responsibility.

107.08 Bridges over Navigable Waters

All Work on navigable waters shall be so conducted that free navigation of the waterways will not be interfered with and that the existing navigable depths will not be impaired except as allowed by permit issued by the U.S. Coast Guard. Work within the flood plain of a navigable stream may require the contractor to acquire a permit from the U.S. Army Corps of Engineers. If a U.S. Army Corps of Engineers permit is required, provide all documentation submitted to obtain the permit(s) and a copy of the permit(s) to the Engineer.

107.09 Use of Explosives.

When the use of explosives is necessary for the prosecution of the Work, exercise the utmost care not to endanger life or property, including new Work. The Contractor is responsible for all damage resulting from the use of explosives.

Obtain written permission to perform in-stream blasting from the Chief of the Division of Wildlife, Ohio DNR according to ORC 1533.58. Provide the Engineer with all documentation submitted to obtain this permit and with a copy of the permit.

The Contractor agrees, warrants, and certifies that it will observe State laws and local ordinances and regulations relative to the use and storing of explosives kept on the Project site.

Perform all blasting operations according to Item 208.

107.10 Protection and Restoration of Property.

The Contractor is responsible for the preservation of all public and private property impacted by the Contractor's operations.

The Contractor is responsible for all damage or injury to property, during the prosecution of the Work, resulting from any act, omission, neglect, defective work or materials, or misconduct in the manner or method of executing the Work. The Contractor will remain responsible for all damage and injury to property until the Project is accepted under 109.12, except for portions of the Work accepted under 109.11.

If the Contractor causes any direct or indirect damage or injury to public or private property by any act, omission, neglect, or misconduct in the execution or the non-execution of the Work, then it must restore, at its own expense, the property to a condition similar or equal to that existing before the damage or injury.

If mail boxes, road, or street name signs and supports interfere with the Work, then remove and erect them in a temporary location during construction in a manner satisfactory to and as directed by the Engineer. After completion of the Work and before final acceptance of the Project, erect the mailboxes, road, or street name signs and supports in their permanent locations according to the plans unless otherwise directed by the Engineer. Consider the cost of this Work as incidental to the affected items.

Cooperate with the Engineer in protecting and preserving monuments, cornerstones and boundary survey markers that are affected by the Work as required by ORC 5519.05.

Right-of-Way monuments are property boundary monuments set to comply with Ohio Administrative Code Section 4733.37, "Minimum Standards for Boundary Surveys in the State of Ohio" and ORC 5519.05 and may be recited on the deed of record. Existing Right-of-Way monuments will be referenced prior to construction activities and, if disturbed, reset after construction activities by the Contractor. There are situations where temporary Right-of-Way easements are purchased to construct the work and it is expected that the permanent Right-of-Way monuments within the temporary easements may get destroyed to perform the work. Any permanent Right-of-Way Monuments or property monuments on or outside the Right of Way limits and not enclosed within a temporary easement for the project will be the Contractor's responsibility to protect. Upon completion of the final grading, replace any Right-of-Way Monuments destroyed during or by construction activities. A quantity for replacement of Right-of-Way Monuments expected to be destroyed that are within a temporary easement will be paid under Item 604. When specified in the plans, the Contractor will construct the Monument Assemblies with the iron pin and cap. Right-of-Way Monuments and Monument Assemblies are to be set under the direct supervision of a Registered Surveyor.

Do not begin grading or resurfacing operations until the Contractor has referenced and verified the position of all known monuments, cornerstones, and boundary survey markers in the area to be improved, relative to the survey information provided to the Contractor by the County. Make a reasonable search effort using common iron pin locating devices to locate monuments, cornerstones, and boundary survey markers at normal probable locations (i.e. offsets at occupation lines) if no monuments are shown on the plans. If monuments, cornerstones, and boundary survey markers are unexpectedly encountered, then protect, reference, and preserve them in the same manner. Referencing, as indicated above, shall mean locating their positions relative to a project control network, traverse line or centerline using standard acceptable surveying measurements and techniques suitable to meet the requirements of OAC Section 4733-37-04, Measurement Specifications. The locating method, field

data recording procedures and equipment to be used will be reviewed and approved by the Engineer prior to performing the work.

Provide the Engineer with a report indicating the monuments, cornerstones, and boundary survey markers located. List project coordinates and/or station and offset relative to the plan centerline and a description of the monuments, cornerstones, and boundary survey markers found, including size, material, condition, any cap stamping or markings and noting any differences from the plan locations of any of the monuments. The Engineer shall compare the Contractor's preconstruction monument report with the plans and any preconstruction checks provided by the County.

If monuments, cornerstones, and boundary survey markers are encountered in the performance of the Work, and their adjustments or replacements are not provided in the proposal, the Contractor shall perform the necessary adjustments, or furnish and install the replacements at their precise location in conformity with ORC 5519.05. All such adjustments/replacements are subject to review/verification by the County. Furnish all labor, equipment, and materials required to perform such adjustments/replacements. The County will pay for any labor, equipment, or materials furnished during the adjustments/replacements according to 109.05. Perform said Work under the supervision of a registered surveyor.

The Engineer will deduct from the estimates the cost incurred by the County for repair, re-determination of location, and replacement of any monuments, cornerstones, and boundary survey markers within the highway that were damaged, destroyed, or made inaccessible during the progress of the Work by the Contractor or its employees, subcontractors, or their agents, in violation of these provisions.

"Do not create staging areas, store materials and equipment, or borrow or waste materials in areas labeled as an environmental resources areas in the Contract Documents. All properties to be utilized by the Contractor outside the project Right of Way must be cleared for all environmental resource impacts prior to the beginning of work. Environmental resources include but may not be limited to:

1. Cultural Resources
 - a. Buildings, structures, objects, and sites eligible for or listed on the National Register of Historic Places
 - b. Historic or prehistoric human remains, cemeteries, and/or burial sites (pursuant with ORC 2909.05 and 2927.11)
2. Ecological Resources
 - a. Wetlands
 - b. Streams
 - c. Wooded areas with trees to be removed in excess of 8 inches diameter at breast height
3. Public Lands
 - a. Lands meeting the criteria of 49 U.S.C. 303, 23 CFR 771.135: 4(f).
 - b. Lands meeting the criteria of 16 U.S.C. 4601-4, 36 CFR 59.1: 6(f).
4. FEMA Mapped 100 year Floodplains
5. Hazardous Waste Areas

Except for locations utilized specifically for parking of equipment between workdays for maintenance type projects, all areas proposed to be utilized by the Contractor outside the project construction limits shall be reviewed by environmental contractor(s) that are prequalified by ODOT for each environmental resource. This exception applies to projects with "maintenance" in the project description. Have the consultant(s) certify that the proposed site to be utilized for the contractor will not impact:

Cultural Resources
Ecological Resources
Public Lands
FEMA Mapped 100 year Floodplains
Hazardous Waste Areas

Provide all documentation and the consultant certification to the ODOT Office of Environmental Services with a copy to the Engineer.

Should the areas proposed for use by the Contractor outside the project right of way limits contain environmental resources the Contractor is responsible to the County for all environmental clearances and permits prior to the beginning of work.”

107.11 Contractor’s Use of the Project Right-of-Way or Other County-Owned Property.

A. Disposal of Waste Material and Construction Debris and Excavation of Borrow on the Project Right-of-Way or on Other County-Owned Property.

Dispose of waste material according to 105.16 and dispose of construction debris according to 105.17. In addition to the rights granted in 104.03, the Contractor’s use of the Project Right-of-Way or other County-owned property for the disposal of waste material and construction debris and excavation of borrow material is restricted as follows:

1. If the Contract Documents identify locations for the disposal of waste material and construction debris or excavation of borrow material within the Project Right-of-Way or on other County-owned property, then only perform these operations in these designated locations.
2. If the Contract Documents do not identify locations for the disposal of waste material and construction debris or excavation of borrow material within the Project Right-of-Way or on other County-owned property, then do not bid assuming that the County will make such locations available.

If the Contractor’s request to use locations within the Project Right-of-Way or on other County-owned property is approved by the Engineer, then the County may allow the Contractor to dispose of waste material and construction debris or excavate borrow material for a fee of \$0.50 per cubic yard.

B. Contractor’s Use of Portable Plants Within the Project Right-of-Way or on Other County-Owned Property.

The Contractor’s use of portable plants within the Project Right-of-Way or on other County-owned property is limited as follows:

1. If the Contract Documents identify locations within the Project Right-of-Way or on other County-owned property to place a portable plant, then only place a portable plant in these designated locations subject to the requirements of 107.11.C.
2. If the Contract Documents do not identify locations within the Project Right-of-Way or on other County-owned property to place a portable plant, then do not bid assuming that the County will make such locations available.

However, the County will consider a Value Engineering Change Proposal (VECP) for the placement of a portable plant within the Project Right-of-Way or on other County-owned property and, if accepted, may allow the use of a particular site on its property subject to the requirements of 107.11.C.

C. Placement of a Portable Plant within the Project Right-of-Way or on Other County-Owned Property.

To place a portable plant within the Project Right-of-Way or on other County-owned property, comply with the following requirements:

1. Local noise ordinances.
2. Obtain any necessary EPA permits for the operation of the plant. Provide the County with a copy of the information submitted to obtain the permit and a copy of the permit.
3. Provide the Engineer written certification that the plant will supply material only for the Project for which it was approved. Do not use the plant to supply any other project or to sell materials commercially.
4. Submit a traffic control plan to the Engineer for approval that details the anticipated truck movements and provides acceptable protection, warning, and guidance to motorists, pedestrians, and the workers.

D. Equipment Storage and Staging.

The Contractor may use, fee-free, any portion of the Project within the Project Right-of-Way for staging, equipment storage, or an office site with the approval of the Engineer, provided such usages do not interfere with the Work and are not prohibited by the Contract Documents. Do not bid in anticipation of using any properties within the Project Right-of-Way or County-owned property outside the Project Right-of-Way for equipment storage or staging. For all other private property, provide evidence of an agreement with the property owner granting/indicating permission to use said property.

E. Equipment Removal and Site Restoration.

Remove all Contractor equipment and completely restore all utilized sites used as required by 104.04 before Final Acceptance as provided in 109.12.

107.12 Responsibility for Damage Claims and Liability Insurance.

The Contractor shall indemnify and save harmless Cuyahoga County, Ohio, and its employees, the State of Ohio, municipalities, public utilities, any affected railroad or railway company, and any fee owner from whom a temporary Right-of-Way was acquired for the Project from all suits, actions, claims, damages, or costs of any character brought on account of any injuries or damages sustained by any person or property on account of any negligent act or omission by the Contractor or its subcontractors or agents in the prosecution or safeguarding of the Work.

The Contractor shall procure and maintain insurance for liability for damages imposed by law and assumed under this Contract, of the kinds and in the amounts hereinafter provided from insurance companies authorized to do business in the State by the Ohio Department of Insurance. The cost of insurance is incidental to all contract items. Before the execution of the Contract by Cuyahoga County, furnish to Cuyahoga County, a certificate or certificates of insurance in the form satisfactory to Cuyahoga County demonstrating compliance with this subsection. Provide an insurance certificate or certificates that show that the Contractor's liability and auto policies coverage are not reduced, restricted, or canceled until 30 days written notice has been given to Cuyahoga County by the insurer. Mail all certificates and notices to: Cuyahoga County, 1219 Ontario St., Cleveland, Ohio, 44113. Upon request, the Contractor shall furnish Cuyahoga County with a certified copy of each policy, including the provisions establishing premiums.

The types and minimum limits of insurance are as follows:

A. Workers' Compensation Insurance. Comply with all provisions of the laws and rules of the Ohio Bureau of Workers' Compensation covering all operations under Contract with the County whether performed by it or its subcontractors. In addition, if a portion of the Work is performed from a barge or ship or requires unloading material from a barge or ship on a navigable waterway of the United States, it is the responsibility of the Contractor to arrange coverage for that portion of the Work under the Longshore and Harborworkers' Compensation Act [33 USC Section 901 *et seq.*] and the Jones Act [5 USC Section 751 *et seq.*] and provide proof of coverage to the County.

B. Commercial General Liability Insurance. The minimum limits for liability insurance are as follows:

General Aggregate Limit	\$2,000,000
Products - Completed Operations	
Aggregate Limit	\$2,000,000
Personal and Advertising Injury Limit	\$1,000,000
Each Occurrence Limit	\$1,000,000

Obtain the above minimum coverages through primary insurance or any combination of primary and umbrella insurance. In addition, the County will require the General Aggregate Limit on a per project basis.

Ensure that the Commercial General Liability Insurance policy names Cuyahoga County, Ohio, and its employees as additional insureds with all rights to due notices in the manner set out above. Obtain Explosion, Collapse, and Underground (XCU) coverage at the same limits as the commercial general liability insurance policy. In addition, if blasting is to be performed, obtain XCU coverage providing a minimum Aggregate Limit of \$5,000,000 and Each Occurrence Limit of \$1,000,000. Submit proof of insurance, endorsements, and attachments to the Engineer prior to starting the Work.

C. Comprehensive Automobile Liability Insurance. The Comprehensive Automobile Liability policy shall cover owned, non-owned, and hired vehicles with minimum limits as follows:

Bodily Injury and Property Damage Liability Limit	
Each Occurrence	\$1,000,000

Insurance coverage in the minimum amounts set forth neither relieves the Contractor from liability in excess of such coverage, nor precludes Cuyahoga County from taking such other actions as are available to it under any other provisions of this Contract or otherwise in law.

Clearly set forth all exclusions and deductible clauses in all proof of insurance submitted to Cuyahoga County. The Contractor is responsible for the deductible limit of the policy and all exclusions consistent with the risks it assumes under this Contract and as imposed by law.

If the Contractor provides evidence of insurance in the form of certificates of insurance, valid for a period of time less than the period during which the Contractor is required by terms of this Contract, then Cuyahoga County will accept the certificates, but the Contractor is obligated to renew its insurance policies as necessary. Provide new certificates of insurance from time to time, so that Cuyahoga County is continuously in possession of evidence that the Contractor's insurance is according to the foregoing provisions.

If the Contractor fails or refuses to renew its insurance policies or the policies are canceled or terminated, or if aggregate limits have been impaired by claims so that the amount available is under the minimum aggregate required, or modified so that the insurance does not meet the requirements of 107.12.C, Cuyahoga County may refuse to make payment of any further monies due under this Contract or refuse to make payment of monies due or coming due under other contracts between the Contractor and Cuyahoga County. Cuyahoga County in its sole discretion may use monies retained pursuant to this subsection to renew or increase the Contractor's insurance as necessary for the periods and amounts referred to above. Alternatively, should the Contractor fail to comply with these requirements, Cuyahoga County may default the Contractor and call upon the Contractor's Surety to remedy any deficiencies. During any period when the required insurance is not in effect, the Engineer may suspend performance of the Contract. If the Contract is so suspended, the Contractor is not entitled to additional compensation or an extension of time on account thereof.

Nothing in the Contract Documents and insurance requirements is intended to create in the public or any member thereof a third party beneficiary hereunder, nor is any term and condition or other provision of the Contract intended to establish a standard of care owed to the public or any member thereof.

107.13 Reporting, Investigating and Resolving Motorist Damage Claims

Pursuant to 107.10 and 107.12, the following procedures shall be utilized by the Contractor and the Cuyahoga County Department of Public Works for reporting, investigating and resolving motorist damage claims.

When a motorist reports damage to its vehicle either verbally or in writing to the Contractor, the Contractor shall within 3 days make and file a written report to the Engineer. In the event that the Engineer directly receives the motorist's claim, the Engineer shall within 3 days send the claim report to the Contractor. In the event the contractor has not agreed to resolve the motorist claim, the Engineer or his/her designated representative, as a co-insured party, may then contact the Contractor's insurance company and request that the insurance company investigate and resolve the claim. If the Contractor or their insurance company does not resolve the claim in a timely manner, the Engineer may advise the motorist of the option of pursuing the claim in the appropriate Court of Law.

In the event of a lawsuit filed by the motorist in the appropriate Court of Law against Cuyahoga County and/or the Cuyahoga County Department of Public Works, Cuyahoga County and/or the Cuyahoga County Department of Public Works, as co-insured party, may request the Contractor's insurance company to defend this lawsuit and hold Cuyahoga County and/or the Cuyahoga County Department of Public Works harmless in accordance with 107.12.

If the lawsuit claim amount is \$2,500 or less and the Court of Claims Coordinator determines that the Contractor is responsible for the claimed damages then the County's Court of Claims Coordinator may, after notifying the Contractor, determine that it would be in the best interest of the County to settle the claim. Any settlement amount including court costs may be assessed to the Contractor and deducted from the project. The Engineer will notify the Contractor prior to executing the deduction. The Contractor or the Contractor's insurance company may within 14 days appeal the assessment decision of the Court of Claims Coordinator to the Engineer. The decision of the Engineer will be made within 14 days and will be administratively final.

107.14 Opening Sections of Project to Traffic

The Engineer may order the Contractor to open a section of the Work to the safe use of traffic at any time. The County will make an adjustment according 108.06 and 109.05 to compensate the Contractor for the added costs and delay, if any, resulting from such an opening.

107.15 Contractor's Responsibility for Work

Until final written acceptance of the project by Cuyahoga County, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the Work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the Work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the Work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to weather, civil disturbances, or governmental acts.

In the event that damage to completed permanent items of Work results from traffic utilizing a substantially completed section of roadway, as determined by the Engineer, the Contractor may be compensated for repair of damage as authorized by Subsidiary Agreement to establish the propriety of reimbursement. To receive compensation for damage the Contractor must meet the following requirements:

1. The Contractor must formally notify the Engineer of each occurrence of damage within 10 calendar days.
2. The Contractor shall contact the local law enforcement agency to determine if the damage (accident) was investigated and a report filed. If an accident report was filed, the Contractor shall obtain the report and notify the motorist, and copy their insurance company, via registered mail that the motorist is responsible for the cost of damage repairs. If the motorist does not respond within 30 days, the Contractor shall make a second attempt to contact the motorist and copy the insurance company via registered mail.
3. If no response is received from the motorist or insurance company within 30 days, the Contractor will send a letter to the Engineer and include documentation of good faith effort to seek recovery from responsible parties.
4. Cuyahoga County will compensate the Contractor to make necessary repairs to the damaged Work and request the Cuyahoga County Prosecutor to collect the costs from responsible parties on behalf of Cuyahoga County.

If there is no accident report on file and no means of identifying the guilty motorist, the Contractor will likewise be compensated to repair the damaged Work.

In case of suspension of Work by the Contractor or under the provisions of 105.01 or 105.09 A, the Contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the project, provide for normal drainage and shall erect any necessary temporary structures, signs, or other facilities at his expense. During such period of suspension of Work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seeding, and sodding furnished under his/her contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

The Engineer may direct the Contractor to remove graffiti any time during the Work. The County will make an adjustment according to 108.06 and 109.05 to compensate the Contractor for the added costs and delays, if any, resulting from all ordered graffiti removal.

107.16 Contractor's Responsibility for Utility Property and Services

At points where the Contractor's operations are adjacent to properties of railway, cable, telegraph, telephone, and power companies, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, Work shall not be commenced until all arrangements necessary for the protection thereof have been made.

The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations in order to ensure that these operations progress in a reasonable manner, that duplication of rearrangement Work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

In the event of interruption to underground or overhead utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall immediately contact emergency personnel, if required, and alert the occupants of nearby premises as to any emergency that the Contractor may create or discover at or near such premises. The Contractor shall then notify the Engineer and the owner or operator of the utility facility of the disruption and shall cooperate with the said utility owner or operator in the restoration of service. If water service is interrupted, repair Work shall be continuous until the service is restored. No Work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority. The Contractor shall not begin Work around fire hydrants until the local fire authority approves the Contractor's provisions for continued service.

107.17 Furnishing Right-of-Way

The Cuyahoga County Department of Public Works, through Cuyahoga County, will be responsible for the securing of all necessary rights-of-way in advance of construction. Any exceptions will be indicated in the proposal by reference to a specific parcel number. Prospective bidders will be notified in writing prior to the date scheduled for receipt of bids regarding the specific dates such parcels will be made available to the Contractor.

107.18 No Waiver of Legal Rights.

The following County actions do not waive the County's rights or powers under the Contract, or any right to damages herein provided:

- A. Inspection by the Engineer or by any of Engineer's duly authorized representatives.
- B. Any order, measurements, or certificate by the Engineer, or County representatives.
- C. Any order by the Engineer or County representatives for the payments of money or the withholding of money.
- D. Acceptance of any Work.
- E. Any extension of time.
- F. Any possession taken by the County or its duly authorized representatives.

The County will not consider any waiver of a breach of this Contract to be a waiver of any other subsequent breach.

107.19 Environmental Protection.

Comply with all Federal, State, and local laws and regulations controlling pollution of the environment. Avoid polluting streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, sediments, or other harmful materials, and avoid polluting the atmosphere with particulate and gaseous matter.

Fording of streams is prohibited. Causeways for stream and river crossings or for Work below a bridge are permitted provided:

- A. The causeway is constructed according to 207.03.B.8.b.
- B. The causeway complies with the requirements of the 404 Permit the County obtained for the Project.
- C. The Contractor obtains a 404 Permit from the U.S. Army Corps of Engineers if the County has not obtained such a permit. Obtain the 404 Permit prior to beginning construction of the causeway. The County does not guarantee that the Contractor will be able to obtain a 404 Permit.

Comply with all current provisions of the Ohio Water Pollution Control Act, (OWPCA), (ORC Chapter 6111). The County will obtain a storm water permit under the OWPCA provisions when the plan Work acreage requires a permit. The storm water permit will not cover the Contractor's Work outside the Project limits shown on the Plans. The Contractor shall apply for a permit to cover operations outside the Project limits shown on the plans as required by the OWPCA provisions. When the County has not applied for a permit on the Project and a permit is required under the provisions of the OWPCA because of the total area of the Contractor's Work, the contractor shall apply for, obtain, and comply with the required permit for both the Work within Project limits and the Contractor's Work.

The County has obtained the required permits from the U.S. Army Corps of Engineers and Ohio EPA for Work in the "Waters of the United States" and isolated wetlands under ORC Chapter 6111. The Contractor shall comply with the requirements of these permits.

When equipment is working next to a stream, lake, pond, or reservoir, spill response equipment is required in the event of a hydraulic leak. Do not stockpile fine material next to a stream, lake, pond, or reservoir.

Take precautions to avoid demolition debris and discharges associated with the excavation and hauling of material from entering the stream. Remove any material that does fall into the stream as soon as possible.

When excavating in or adjacent to streams, separate such areas from the main stream by a dike or barrier to keep sediment from entering the stream. Take care during the construction and removal of such barriers to minimize sediment entering the stream.

Accomplish control of ground water and water in excavations in a manner that prevents the degradation of the water quality of any surface water. Install wells and well points with suitable screens and filters where necessary to prevent the continuous pumping of fines. Pump sediment-laden water in a manner to prevent degradation of streams, lakes, ponds, or other areas of water impoundment. Such prevention may involve but is not limited to the means and methods described in Item 207. Use the current version of ODOT's *Sediment and Erosion Control Handbook* to plan this Work. Use the methods necessary to prevent adverse effects to surface waters as provided in OAC-3745-1-04. The cost of constructing and maintaining these measures is incidental to the Contract.

Contain, collect, characterize and legally dispose of all waste water and sludge generated during the work. Do not mix waste water with storm water. Do not discharge any waste water without the appropriate regulatory permits. Manage waste water and sludge in accordance with ORC Chapter 6111 and all other laws, regulations, permits and local ordinances relating to this waste. Waste water management is incidental to the Work unless otherwise specified in the contract.

Control the fugitive dust generated by the Work according to OAC-3745-17-07(B), OAC-3745-17-08, OAC-3745-15-07, and OAC-3745-17-03 and local ordinances and regulations. In addition, use dust control measures when fugitive dust creates unsafe conditions as determined by the Engineer. Perform this Work without additional compensation except for Item 616.

Perform open burning according to 105.16.

107.20 Civil Rights.

Comply with Federal, State, and local laws, rules, and regulations that prohibit unlawful employment practices including that of discrimination because of race, religion, color, sex, or national origin and that define actions required for Affirmative Action and Disadvantaged Business Enterprise (DBE) programs.

For projects not involving Federal Funds, replace the term "Disadvantaged Business Enterprise (DBE)" with "Small Business Enterprise (SBE)".

107.21 Prompt Payment.

In accordance with ORC 4113.61, make payment to each subcontractor and supplier within 10 Calendar Days after receipt of payment from the County for Work performed or materials delivered or incorporated into the Project, provided that the pay estimate prepared by the Engineer includes Work performed or materials delivered or incorporated into the public improvement by the subcontractor or supplier. Promptly release any retainage held, as set forth in any subcontractor or supplier agreement, within 10 days of County's acceptance of the work involving the subcontractor or supplier from whom retainage has been held. For the sole purpose of establishing a time frame for the release of the subcontractor or supplier retainage, acceptance of subcontractor or supplier work will occur when the subcontractor or supplier has complied with the requirements of 109.12.A, B and C.

The Contractor shall also require that this contractual obligation be placed in all subcontractor and supplier contracts that it enters into and further require that all subcontractor and suppliers place the same payment obligation in each of their lower tier contracts. If the Contractor, subcontractors, or supplier subject to this provision fail to comply with the 10 Calendar Day requirement, the offending party shall pay, in addition to the payment due, interest in the amount of 18 percent per annum of the payment due, beginning on the eleventh Calendar Day following the receipt of payment from the County and ending on the date of full payment of the payment due plus interest.

Repeated failures to pay subcontractors and suppliers timely pursuant to this subsection will result in a finding by the County that the Contractor is in breach of Contract and subject to all legal consequences that such a finding entails.

107.22 Personal Liability of Public Officials

In carrying out any of the provisions of these specifications, or in exercising any power or authority granted to them by or within the scope of the contract, there shall be no liability upon Cuyahoga County, the Cuyahoga County Department of Public Works or their authorized representatives, either personally or as officials of the County, it being understood that in all such matters they act solely as agents and representatives of the County.

108 PROSECUTION AND PROGRESS

108.01 Subletting of Contract

The provisions of this section apply to all subcontracts.

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or contracts or any portion thereof, or of his/her right, title, or interest therein, without written approval of the Cuyahoga County Department of Public Works. Such approval shall not relieve the contractor of the responsibility for the management and performance of the sublet Work. A copy of any such subcontracts must be furnished to the Cuyahoga County Department of Public Works. In case such approval is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with his/her own organization, Work amounting to not less than 50 percent of the total contract cost, except as set forth in paragraph (3) hereof. The term "his/her own organization" shall be construed to include only workers employed and paid directly by the Contractor and equipment owned or rented by him with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime Contractor. An assignment of contract Work is considered synonymous with a subcontract to perform Work.

To determine whether the Contractor is in compliance with the requirement that he perform with his/her own organization contract Work amounting to not less than 50 percent of the total contract price, the following criteria shall apply:

1. The contract amount upon which the 50 percent requirement is computed shall include the cost of materials and manufactured products which are to be purchased or produced under the contract provisions.
2. The percentage of subcontracted Work, for purposes of this section, shall always be based on original contract prices rather than actual subcontract prices. If only a part of a contract item is to be sublet, its proportional value shall be determined administratively on the same basis. This procedure shall be followed even when the part not sublet consists only of procuring the materials. However, when a firm both sells materials to a Contractor and performs the Work of incorporating the materials in the project, these two phases must be considered in combination and as constituting a single subcontract. If an affiliate of the firm either sells the materials or performs the Work, the Cuyahoga County Department of Public Works may refuse approval. An affiliate is one who has some common ownership or other close relation to said firm.
3. The Cuyahoga County Department of Public Works may reduce the 50 percent amount by insertion of a contract provision in the Special Provisions of the Cuyahoga County Engineer Specification Booklet. However, in no event shall the Contractor perform less than 35 percent of the total contract cost. No subcontract, or transfer of contract, shall release the Contractor of his/her liability under the contract and bonds, unless release is granted by Cuyahoga County.

In order to obtain the written approval of the Cuyahoga County Department of Public Works to sublet Work, the contractor must complete and submit to the Cuyahoga County Department of Public Works a Cuyahoga County Engineer form C-92C Request to Sublet for each proposed subcontractor.

The contractor must sublet all Work for which he/she does not hold the required ODOT work type qualification to subcontractors who hold the required ODOT work type qualifications. Upon approval of the Engineer, the contractor may employ subcontractors who do not hold an ODOT Certificate of Qualification to perform the following types of Work:

1. Work for which there is no corresponding work type.
2. Work for which the contractor holds the required ODOT work type qualification provided that the subcontractors' collective compensation does not exceed 15%, not to exceed \$500,000.00, of the contract amount.

108.02 Preconstruction Meeting, Progress Meetings, Post-milestone Meeting and Post Construction Meeting

A. Preconstruction Meeting. Meet with the Engineer for a Preconstruction Meeting before beginning the Work. At or before the meeting, submit the initial progress schedule to the Engineer. Prepare the schedule according to 108.03.A or, if included in the proposal, per the "Critical Path Method Project Schedule" pay item/proposal note.

Furnish a list of proposed subcontractors and material suppliers at or before the Preconstruction Meeting. If the Contractor fails to provide the required submissions at or before the Preconstruction Meeting, the Engineer may order the meeting suspended until they are furnished. Do not begin the Work until the meeting is reconvened and concluded or the Engineer gives specific written permission to proceed.

B. Progress Meetings. Attend monthly Progress Meetings unless the frequency is otherwise determined at the Preconstruction Meeting. Coordinate with the Engineer to determine agenda topics prior to each meeting. The purpose of Progress Meetings is to keep open communication between the Contractor and the Engineer. The senior personnel team is encouraged to participate in all Progress Meetings.

C. Post-milestone Meeting. The Engineer will determine whether a Post-milestone Meeting (conducted as part of the Progress Meeting or as a separate meeting) is required for multi-year projects, multi-phase projects, or projects with critical items of work or milestone dates. Discuss and, if necessary, update the Progress Schedule and/or any items specific to the Project. All stakeholders should be invited to attend.

D. Post Construction Meeting. The County may conduct a Post Construction Meeting with the Contractor after final inspection. The County will determine the time and place for the meeting. The County may contact the design agency or consultant, local government agency and, if applicable, ODOT to request a representative attend this meeting.

The purpose of this meeting is to document and evaluate the project's challenges and successes.

The cost of attending this meeting is incidental to the Contract.

108.03 Prosecution and Progress

Start the Work according to 108.02 and 108.03A below. Notify the Engineer at least 24 hours before starting Work. If the prosecution of Work is suspended, notify the Engineer a minimum of 24 hours in advance of resuming operations.

Pursue the Work diligently and continuously as to complete the Project by the Completion Date.

A. Progress Schedule.

1. General. Furnish a bar chart progress schedule to the Area Construction Engineer for review at or before the Preconstruction Meeting. The Engineer will review the schedule and within 14 calendar days of receipt, will either accept the schedule or provide the Contractor with comments. Acceptance of the schedule does not revise the Contract Documents. Provide clarification or any needed additional information within 10 days of a written request by the Engineer. The County will withhold Estimates until the Engineer accepts the schedule. The Engineer will not measure or pay for the preparation of the schedule and schedule updates directly, but the cost of preparing and updating the schedule is incidental to all Contract Items.

a. Include the following Administrative Identifier Information:

(1) Project Number

(2) County Road Name/Number

- (3) Project Limits
- (4) PID Number (if applicable)
- (5) Contract Notice to Proceed Date
- (6) Completion Date
- (7) Contractor's Name
- (8) Contractor's Dated Signature
- (9) County's Dated Acceptance Signature

Provide a working day schedule that shows the various activities of Work in sufficient detail to demonstrate a reasonable and workable plan to complete the Project by the Completion Date. Show the order and the sequence for accomplishing the Work. Describe all activities in sufficient detail so that the Engineer can readily identify the Work and measure the progress of each activity. The bar chart schedule must reflect the scope of work, required phasing, maintenance of traffic requirements, interim completion dates, the Completion Date, and other project milestones established in the Contract Documents. Include activities for submittals, working and shop drawing preparation, submittal review time for the County, material procurement and fabrication, and the delivery of materials, plant, and equipment, and other similar activities. The schedule must be detailed on letter or legal sized paper.

b. Activity requirements are discussed in further detail as follows:

- (1) Activity Description

Assign each activity an unambiguous descriptive word or phrase. For example, use "Excavate Area A," not "Start Excavation."

- (2) Activity Original Duration

Indicate a planned duration in calendar days for each activity. Do not exceed a duration of 20 working days for any activity unless approved by the Engineer. Do not represent the maintenance of traffic, erosion control, and other similar items as single activities extending to the Completion Date. Break these Contract Items into component activities in order to meet the duration requirements of this paragraph.

2. Updated Progress Schedule. Submit an updated progress schedule when ordered by the Engineer. The Engineer may request an updated progress schedule when progress on the work has fallen more than 14 calendar days behind the latest accepted progress schedule. Information in the updated schedule must include a "% work completed" value for each activity.

3. Recovery Schedule. If the progress schedule projects a finish date for the Project more than 14 calendar days later than the Completion Date, submit a revised schedule showing a plan to finish by the Completion Date. The County will withhold Estimates until the Engineer accepts the revised schedule. The Engineer will use the schedule to evaluate time extensions and associated costs requested by the Contractor.

108.04 Limitation of Operations

Limit operations to prevent unnecessary inconvenience to the traveling public. If the Engineer concludes that the extent of the Contractor's Work unnecessarily inconveniences the public or concludes limiting operations are necessary to protect the existing or new construction from damage, the Engineer will require the Contractor to finish portions of Work in progress before starting new Work.

108.05 Character of Workers, Methods and Equipment

Provide personnel with sufficient skills and experience to perform assigned tasks.

Ensure that no debarred individuals listed on the Federal website: www.epls.gov or State debarment list at the website: www.dot.state.oh.us/divisions/contractadmin/ act in any ownership, leadership, managerial, or other similar position that could influence the operations of an entity doing business with the County.

If the Engineer gives written notification that specific Contractor or subcontractor personnel are improperly performing the Work, intemperate, disorderly, or creating a hostile work environment, remove the identified personnel from the Project. Do not allow removed personnel to return to the Project without the Engineer's approval.

The Engineer may suspend the Work by written notice under this subsection for the following reasons:

- A. The Contractor does not furnish sufficient skilled and experienced personnel to complete the Project by the Completion Date.
- B. The Contractor does not remove personnel from the Project as directed in writing by the Engineer.

Use equipment of sufficient size and mechanical condition to complete the Project by the Completion Date. Ensure that the equipment does not harm the roadway, adjacent property, other highways, workers, or the public.

If the Contract Documents do not prescribe the methods and equipment required to accomplish the Work, determine the methods or equipment necessary to complete the Work according to the Contract.

If the Contract Documents specify methods and equipment to perform the Work, use such methods and equipment, unless others are authorized by the Engineer. Obtain the Engineer's written approval before substituting alternate methods or equipment. To obtain the Engineer's approval, submit a written description of the alternate methods and equipment proposed and an explanation of the reasons for making the change. The Engineer's approval of substitute methods and equipment does not relieve the Contractor of the obligation to produce Work according to 105.03. If after trial use of the substituted methods or equipment, the Engineer determines that the Work does not conform to the Contract Documents, then complete the remaining Work using the specified methods and equipment. Remove all deficient Work and replace it according to the Contract Documents, or take such other corrective action as directed by the Engineer. The Engineer's authorization to substitute alternative methods and equipment will not change the basis of payment for the construction items involved or the Contract Time.

108.06 Determining a Time Extension to the Completion Date and Payment for Excusable Delays.

A. General. The County will only extend the Completion Date if an excusable delay, as specified in 108.06.B or 108.06.D, delays Work on the critical path shown on the accepted progress schedule and impacts the Completion Date. The critical path is defined as the longest path of activities in the project that determines the project schedule completion date. The activities that make-up the critical path of activities are the "Critical Activities". Any extension of the Completion Date will be issued in writing by the Engineer.

Mitigation of any delay, whether caused by the County, Contractor, third-party or an intervening event, is a shared contract and legal requirement. Mitigation efforts include, but are not limited to, re-sequencing work activities, acceleration, and continuation of work through an otherwise planned shutdown period. The Contractor and Engineer must explore and discuss potential mitigation efforts in a timely manner.

The County will not evaluate a request for extension of the Completion Date unless the Contractor notifies the Engineer as specified in 104.05. Notification shall be in writing to the Engineer within 30 days following the

termination of the event giving rise to the request and shall be accompanied by supporting analysis and documentation. The Engineer will evaluate the Contractor's analysis and determine the time extension due, if any. The Engineer will measure all time extensions in Calendar Days. For delays measured in Workdays, the Engineer will convert Workdays to Calendar Days by multiplying by 1.4 for a 5-day work week or less; 1.2 for a 6-day work week; and 1 for a 7-day work week; and extend the Completion Date by the resulting number of Calendar Days plus any holidays the Contractor does not normally work that occur in the extension period. When the conversion of Workdays to Calendar Days results in a decimal of 0.5 or greater, the Engineer will round the number of Calendar Days to the next highest whole number. When the conversion results in a decimal less than 0.5, the Engineer will delete the decimal portion of the Calendar Days.

The Engineer will not grant an extension of time for delays incurred from December 1 to April 30 unless the Contractor's accepted progress schedule depicts Work on the critical path occurring during this period.

The Engineer may order the Contractor to continue Work after November 30 and compensate the Contractor for costs incurred due to cold weather Work.

The Contractor's plea that insufficient time was specified is not a valid reason for an extension of time.

The County will relieve the Contractor from associated liquidated damages, as specified in 108.07, if the Engineer extends the Completion Date under 108.06.A.

The extended Completion Date shall then have the same standing and effect as though it was the original Completion Date.

If the Contractor contends that an excusable delay is also compensable, as specified in 108.06.D, submit a detailed cost analysis of the requested additional compensation along with the request for extension of Completion Date.

B. Excusable, Non-Compensable Delays. Excusable, non-compensable delays are delays that are not the Contractor's or the County's fault or responsibility. The Engineer will not grant additional payment for excusable, non-compensable delays.

The following are excusable, non-compensable delays:

1. Delays due to floods, tornadoes, lightning strikes, earthquakes, or other cataclysmic phenomena of nature.
2. Delays due to weather as specified in 108.06.C.
3. Extraordinary delays in material deliveries the Contractor or its suppliers cannot foresee or avoid resulting from freight embargoes, government acts, or area-wide material shortages. Delays due to the Contractor's, subcontractor's, or supplier's insolvency or mismanagement are not excusable.
4. Delays due to civil disturbances.
5. Delays from fires or epidemics.
6. Delays from labor strikes that are beyond the Contractor's, subcontractor's, or supplier's power to settle and are not caused by improper acts or omissions of the Contractor, subcontractor, or supplier.
7. Added quantities that delay an activity on the critical path.
8. All other delays not the Contractor's and County's fault or responsibility.

C. Extension to the Completion Date for Weather or Seasonal Conditions. A weather day is defined as a workday that weather or seasonal conditions reduced production by more than 50 percent on items of work on the critical path. Submit the dates and number of weather days in writing to the Engineer at the end of each month. In the event the Contractor fails to submit weather days at the end of each month the Engineer will determine the dates and number of weather days from project records. The Engineer will extend the Completion Date one workday for each lost workday caused by weather or seasonal conditions, except for workdays lost from December 1 to April 30.

When the Contractor's accepted progress schedule depicts Work on the critical path occurring during the period from December 1 to April 30, then the Engineer will provide a time extension for weather days lost in excess of those tabulated in Table 108.06-1.

TABLE 108.06-1

Month	Number of Workdays Lost Due to Weather
December	6
January	8
February	8
March	7
April	6

The Engineer will not consider weekends and holidays as lost workdays unless the Contractor normally works those days or unless the Engineer directs the Contractor to work those days.

D. Excusable, Compensable Delays. Excusable, compensable delays are delays that are not the Contractor's fault or responsibility, and are the County's fault or responsibility or are determined by judicial proceeding to be the County's sole responsibility or are the fault and responsibility of a local government. For the following excusable, compensable delays, the Engineer will extend the Completion Date if the conditions specified in 108.06.A are met:

1. Delays due to revised Work as specified in 104.02.B, 104.02.D, or 104.02.F.
2. Delays due to utility or railroad interference within the Project limits.
3. Delays due to an Engineer-ordered suspension as specified in 104.02.C.
4. Delays due to acts of the government or a political subdivision other than the County; however, these compensable delay costs are limited to escalated labor and material costs only, as allowed in 109.05.D.2.b and 109.05.D.2.d.
5. Delays due to the neglect of the County or its failure to act in a timely manner.

Compensation for excusable, compensable delays will be determined by the Engineer according to 109.05.D.1 and 109.05.D.2.

E. Non-Excusable Delays. Non-excusable delays are delays that are the Contractor's fault or responsibility. All non-excusable delays are non-compensable.

F. Concurrent Delays. Concurrent delays are separate critical delays that occur at the same time. When a non-compensable delay is concurrent with a compensable delay, the Contractor is entitled to additional time but not entitled to additional compensation.

108.07 Failure to Complete on Time

If the Contractor fails to complete the Work within the time or times allowed by the contract, the Cuyahoga County Department of Public Works, if satisfied that the Contractor is carrying the Work forward with reasonable progress, and the Cuyahoga County Department of Public Works deems it to be in the best interest of the public, may allow the Contractor to continue in control of the Work. It shall be necessary for the Contractor to make written application to the Cuyahoga County Department of Public Works in order to warrant such continuance. Payments to the Contractor for Work performed and materials furnished will be made.

When the Work is not completed within the time or times allowed by the contract and the Contractor is permitted to remain in control, the Work shall be prosecuted at as many different places, at such times and with such forces as the Cuyahoga County Department of Public Works may request. The Contractor may be required to provide a written plan for the completion of the Work.

For each calendar day that any Work shall remain uncompleted after the contract completion date or dates, the sum specified herein will be deducted from any money due the Contractor, not as a penalty but as liquidated damages; provided, however, that due account shall be taken of any adjustment of the completion date or dates granted under the provisions of 108.06. In the event one or more interim completion dates are specified without specific separate liquidated damages, the amount set forth in the Schedule of Liquidated Damages will separately apply to each interim date. In the event a period of liquidated damages for an interim completion date overlaps a subsequent completion date, the higher rate of liquidated damages will apply for the duration of the overlap.

Permitting the Contractor to continue and finish the Work or any part of it after the date or dates fixed for its completion, or after the date or dates to which completion may have been extended, will in no way operate as a waiver on the part of Cuyahoga County or the Cuyahoga County Department of Public Works of any of their rights under the contract.

The County may stop deducting liquidated damages when:

- A. The Work is substantially complete and the project is available for use as intended by the contract.
- B. The Contractor is diligently pursuing the remaining Work.
- C. The Work remaining will not interfere with the intended use of the project and will not impact traffic. For the limited purposes of assessing liquidate damages, the closing of a shoulder is not considered an impact upon traffic.
- D. All contract safety items are complete and operational. These safety items include but are not limited to signs, pavement markings, guardrail, attenuators, and signals. Raised pavement markers (RPM) are required safety items if the roadway section involved had RPMs before the project started.
- E. Deemed reasonable and appropriate by the Cuyahoga County Department of Public Works.

TABLE 108.07-1 SCHEDULE OF LIQUIDATED DAMAGES

Original Contract Amount (Total Amount of the Bid)		Amount of Liquidated Damages to be Deducted for Each Calendar Day of Overrun in Time
From More Than	To and Including	
\$0.00	\$500,000	\$500
\$500,000	\$2,000,000	\$1,000
\$2,000,000	\$10,000,000	\$1,500
\$10,000,000	\$50,000,000	\$2,600
Over 50,000,000		\$3,200

108.08 Unsatisfactory Progress and Default of Contractor.

The Engineer will notify the Contractor in writing of unsatisfactory progress for any of the following reasons:

- A. The Contractor has not commenced the Work by the dates established in the schedule.
- B. The Contractor does not proceed with the Work in a manner necessary for completion of the Project by the Completion Date.
- C. The Contractor is performing the Work improperly.
- D. The Contractor abandons, fails, or refuses to complete the Work.

E. Any other reason the Engineer believes jeopardizes completion of the Work by the Completion Date.

If the Contractor does not respond to the satisfaction of the Engineer, the Engineer may declare the Contractor in default and may notify the Contractor and Surety that the responsibility to complete the Work is transferred to the Surety. Upon receipt of this notification, the Contractor's right to control and supervise the Work will immediately cease. In such a case, the Engineer will proceed as specified in ORC 5555.68. The defaulted Contractor will not be compensated for costs resulting from the default and is not eligible to be retained by the Surety to complete the Work. If it is determined that the County's default of the Contractor according to 108.08 is wrongful, then the default will revert to a termination of the Contract according to 108.09.

108.09 Termination of Contract for the Convenience of the County

Cuyahoga County may terminate the contract for their convenience at any time. The Contractor will be compensated under 109.04 and 109.05 for added expense not including anticipated profits for termination of the contract for the convenience of Cuyahoga County. This subsection is subject to the limitations of ORC 5555.69.

108.10 Payroll Records.

Keep payroll records as specified in ORC 4115.07 or as required by Federal law.

Authorized representatives of Cuyahoga County or the Cuyahoga County Department of Public Works may inspect the certified payroll and other payroll records. Upon completion of the Work and before receiving the final estimate and when required by ORC 4115.07, submit an affidavit stating that wages have been paid according to the minimum rates specified in the Contract Documents.

109 ACCEPTANCE, MEASUREMENT AND PAYMENT

109.01 Measurement of Quantities

The County will measure the quantities of Work and calculate payments based on the method of measurement and basis of payment provisions provided in these Specifications. When the following units of measure are specified, the County will measure quantities as described below unless otherwise specified in the Contract Documents. The accuracy of individual pay item estimate payments will be one decimal more accurate than the unit measure denoted in the pay item.

Lump Sum. Not measured. Describes payment as reimbursement for all resources necessary to complete the Work. When a complete structure or structural unit is specified as the unit of measurement, the unit will include all necessary fittings and accessories.

Each. Measured by the number of individual items of Work completed.

Foot (Meter). Measured parallel to the longitudinal base or foundation upon which items are placed, or along the longitudinal surface of the item. Measured vertically to the nearest 0.1 foot (0.01 m), with a minimum vertical measurement of 1 foot (0.10 m), at each unit.

Square Yard or Square Foot (Square Meter). Measured by a two-dimensional area method on the surface of the item.

Cubic Yard (Cubic Meter). Measured by a three-dimensional volume method. Measure all "loose material" or material "measured in the vehicle" by the cubic yard (cubic meter). Haul material "measured in the vehicle" in approved vehicles and measure in the vehicle at the point of delivery. For this purpose, use approved vehicles of any type or size satisfactory to the Engineer, provided the vehicle's bed is of such type that the actual contents are readily and accurately determined. Unless all approved vehicles on a job are of uniform capacity, each approved vehicle must bear a legible identification mark indicating the specific approved capacity. The Inspector may reject all loads not hauled in such approved vehicles.

Cubic Yard (Cubic Meter) for Asphalt Concrete. Measure as specified in 401.21.

Acre (Hectare). Measured by a two-dimensional area method on the surface to the nearest 0.1 acre (0.05 ha).

Pound (Kilogram). Measured by actual item net weight avoirdupois (mass).

Ton (Metric Ton). The term "ton" means the short ton consisting of 2000 pounds avoirdupois. The term "metric ton" means 1000 kilograms. Weigh all materials that are proportioned by weight on accurate and approved scales that are operated by competent, qualified personnel at locations approved by the Engineer. However, car weights will not be acceptable for materials to be passed through mixing plants. If trucks are used to haul material being paid for by weight, weigh the empty truck at least once daily and as the Engineer directs and only if the weight of the truck is used in determining the ticket weight. Place a plainly legible identification mark on each truck bearing the weight of the truck.

For Work on a tonnage basis, file with the Engineer receipted freight bills for railroad shipments and certified weight-bills when materials are received by any other method, showing the actual tonnage used. For Work on a volume basis, itemize evidence of the volume used.

Gallon (Liter). Measured by actual item liquid volume. The County will measure the following materials by the gallon (liter) at the following temperatures:

Temperatures Items

60 °F (16 °C)	Creosote for Priming Coat, Creosote Oil, Creosote Solutions for Timber Preservatives, Asphalt Primer for Water-proofing, and Liquefier
100 °F (38 °C)	RC, MC Asphalt Emulsions, CBAE, Primer 20, and Primer 100
300 °F (149°C)	Asphalt Binder

Measure tank car outage of asphalt material at its destination before any material has been removed from the tank car according to Supplement 1060.

Convert the net weight of asphalt material shipments to gallons (liters) at the specified pay temperature according to Supplement 1060.

Convert the gallons (liters) at the measured temperature to gallons (liters) of asphalt material at the specified pay temperature according to Supplement 1060.

Thousand Board Feet, MBF (Cubic Meter). Measure timber by MBF (cubic meter) actually incorporated in the structure. Base the measurement on nominal widths, thicknesses, and the extreme length of each piece.

Standard Manufactured Items. When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by size, unit weight, section dimensions, etc., such identification will be to nominal weights or dimensions set by the industry.

109.02 Measurement Units.

The County will measure using either English or metric units as indicated in the Contract Documents. Use the Tables 109.02-1 and 109.02-2 to convert units when required. If Tables 109.02-1 and 109.02-2 do not provide a required factor, then use the appropriate factor provided in the IEEE/ASTM SI 10.

TABLE 109.02-1 ENGLISH TO SI (METRIC) CONVERSION FACTORS

Symbol	When You Know	Multiply By	To Find	Symbol
Length				
mil	mils	25.4	micrometers	μm
in	inches	25.4	millimeters	mm
ft	feet	0.3048	meters	m
yd	yards	0.9144	meters	m
mi	miles	1.609347	kilometers	km
Area				
in ²	square inches	645.16	square millimeters	mm ²
ft ²	square feet	0.09290304	square meters	m ²
yd ²	square yards	0.8361274	square meters	m ²
ac	acres	0.4046873	hectares	ha
ac	acres	4046.873	square meters	m ²
mi ²	square miles	2.589998	square kilometers	km ²
Volume				
fl oz	fluid ounces	29.57353	milliliters	mL
gal	gallons	3.785412	liters	L
ft ³	cubic feet	0.02831685	cubic meters	m ³
yd ³	cubic yards	0.7645549	cubic meters	m ³
Mass				
oz	ounces	28.34952	grams	g
lb	pounds	0.4535924	kilograms	kg
T	2000 pounds	0.9071847	metric tons	t
Temperature				
°F	Fahrenheit	$C = (F - 32) / 1.8$	Celsius	°C
Illumination				
fc	foot-candles	10.76391	lux	lx
fl	foot-lamberts	3.426259	candelas per square meter	cd/m ²
Force and Pressure or Stress				
lbf-ft	pounds-force foot	1.355818	newton meter	N·m
lbf	pounds force	4.448222	newtons	N
lbf/ft ² (psf)	pounds force per square foot	47.88026	pascals	Pa
lbf/in ² (psi)	pounds force per square inch	0.006894757	megapascals	MPa

TABLE 109.02-2 SI (METRIC) TO ENGLISH CONVERSION FACTORS

Symbol	When You Know	Multiply By	To Find	Symbol
Length				
µm	micrometers	0.03937	mils	mil
mm	millimeters	0.03937	inches	in
m	meters	3.28084	feet	ft
m	meters	1.093613	yards	yd
km	kilometers	0.62137	miles	mi
Area				
mm ²	square millimeters	0.00155	square inches	in ²
m ²	square meters	10.76391	square feet	ft ²
m ²	square meters	1.19599	square yards	yd ²
ha	hectares	2.4710437	acres	ac
m ²	square meters	0.000247	acres	ac
km ²	square kilometers	0.3861	square miles	mi ²
Volume				
mL	milliliters	0.033814	fluid ounces	fl oz
L	liters	0.264172	gallons	gal
m ³	cubic meters	35.31466	cubic feet	ft ³
m ³	cubic meters	1.30795	cubic yard	yd ³
Mass				
g	grams	0.035274	ounces	oz
kg	kilograms	2.204622	pounds	lb
t	metric tons	1.1023114	2000 pounds	T
Temperature				
°C	Celsius	F = 1.8C + 32	Fahrenheit	°F
Illumination				
lx	lux	0.09290304	foot-candles	fc
cd/m ²	candelas per square meter	0.29186352	foot-lamberts	fl
Force and Pressure or Stress				
N·m	newton meters	0.7375621	pounds-foot force	lbf ft
N	newtons	0.22480892	pound force	lbf
Pa	pascals	0.02088543	pounds force per square foot	lbf/ft ² (psf)
MPa	megapascals	145.03774	pounds force per square inch	lbf/in ² (psi)

109.03 Scope of Payment.

Payment of the Contract Price is full compensation for all resources necessary to complete the contract item and maintain the Work. Assume liability for risk, loss, damage, or expense resulting from the Work. The Contract Price and Contract Time shall only be changed by written Change Order or as determined by the County in writing in accordance with the contract documents.

109.04 Compensation for Altered Quantities, Eliminated Items or Termination of the Contract for Convenience of the County.

If the agreed quantities of contract items vary from the quantities in the Contract, the County will make payment at the original Contract unit prices for the agreed quantities of Work.

A. If an item is eliminated in accordance with 104.02.E or the contract is terminated in accordance with 108.09 the County will pay the following in addition to that provided by 104.02.D:

1. Restocking charges supported by paid invoices and an additional 5 percent mark up on the compensation for overhead and profit.
2. The cost of material transferred to the County or a local government agency in lieu of restocking or disposal. The allowed compensation is the paid invoice cost plus 15 percent markup, but no more than the unit bid price for the reference number involved.

3. Hauling costs, if not included in restocking charges, for returned material and for material delivered to the County.

B. If the project is terminated for convenience of the County, the County will negotiate compensation with the Contractor for actual costs incurred as a result of the termination. The County will pay for Extra Work as stipulated in approved Extra Work Change Orders or written authorizations subject to the limitations set forth in ORC 5555.69. Such authorizations for emergencies and to avoid Project delays are in advance of an approved Extra Work Change Order and commit the County only to the terms of the authorizations. The County will pay for Extra Work after the approval of the subsequent Change Order.

109.05 Changes, Extra and Force Account Work.

A. General. If the County revises the Contract under: 104.02, 105.07, 105.10, 105.13, 107.10, 107.14, 107.15, 108.09, 109.06, or 109.07, the County will pay for changes and Extra Work with a Supplemental Agreement using the sequence specified in 109.05.B through 109.05.E.

In establishing the method of payment for contract changes or extra work orders, force account procedures shall only be used when strictly necessary, such as when agreement cannot be reached with the contractor on the price of a new work item, or when the extent of work is unknown or is of such character that a price cannot be determined to a reasonable degree of accuracy. The reason or reasons for using force account procedures shall be documented.

Unless otherwise stated in 109.05, the compensation provided in 109.05.B through 109.05.E constitutes payment in full for all changes and Extra Work completed by original Contract Price, agreed unit price, agreed lump sum price, and for work performed on a force account basis, including:

1. Administration.
2. Superintendence.
3. Project and field office overhead.
4. Home office overhead.
5. Use of tools and equipment for which no rental is allowed.
6. Profit.
7. Taxes other than sales tax.
8. Premiums on insurance including additional premiums for Commercial General Liability Insurance required by 107.12.a and any additional coverage carried by the Contractor or subcontractor, excluding pollution and railroad General Liability Insurance. The County will pay the Contractor's pollution and railroad liability insurance premiums, if required by the contract, by a separate Change Order for the cost of the premium without any mark up. When the Contractor's or subcontractors' basic rate for General Commercial Liability Insurance required by 107.12.a is greater than 5 percent of payroll, the County will pay directly without mark up the portion of the premium in excess of 5 percent and provide copies of paid premiums.

Sales tax will not be allowed on any item for which tax exemption was obtained.

B. Negotiated Prices. Negotiated prices for changed and Extra Work shall be comparable to prices that would have resulted from a competitive bid contract. The Engineer and Contractor will negotiate agreed unit or lump sum prices using one or more of the following methods:

1. Original Contract prices for similar work but adjusted for:
 - a. increased or decreased material costs specified in 109.05.C.3.
 - b. increased or decreased labor costs specified in 109.05.C.2
 - c. increased or decreased equipment costs specified in 109.05.C.4

Adjustments of these prices for inflation or mark up for subcontractor work is not allowed.

2. State-wide average unit price awarded for the item or items as listed in ODOT's annual "Summary of Contracts Awarded." These prices may be adjusted for inflation using factors issued by ODOT's Office of Construction Administration. No mark up for subcontractor work is allowed.

3. Average price awarded on three different projects of similar work and quantity. These prices may be adjusted for inflation using factors issued by ODOT's Office of Construction Administration. No mark up for subcontractor work is allowed.

4. Cost analysis of labor, material, equipment, and mark ups as allowed in 109.05.C.

5. For the cost of compensable delays as defined in 108.06, prepare a cost analysis as allowed by 109.05.D.

Provide proposed pricing and cost justification for changes or Extra Work within 5 business days after the County's request. The County will respond within 5 business days after receipt of the Contractor's proposal. The County and the Contractor can mutually agree to extend these 5-day time limits.

If the County negotiates with the Contractor but does not agree on a price adjustment, the Engineer may direct the Contractor to perform all or part of the revised Work under force account.

C. Force Account.

1. **General.** The Engineer may direct the Contractor to perform the revised Work under force account. Submit a written proposal and estimated costs for the Work, including the planned equipment, materials, labor, and a work schedule.

The County will pay the Contractor as specified in 109.05.C as full compensation for performing the force account Work. The Project and Contractor personnel will document the labor and equipment used on the force account work on a Daily Force Account Record. At the end of each Workday, the Project and Contractor personnel will compare and sign the Daily Force Account Record. The County will make no force account payment before the Contractor submits an itemized statement of the costs for that work.

The Engineer will examine and, if found to be acceptable, approve all rates and costs submitted by the Contractor.

Provide the following content in itemized statements for all force account Work:

- a. Name, classification, date, daily hours, total hours, rate, and amount for all labor.
- b. Designation, dates, daily hours, total hours of actual operation and idle time, Blue Book rate with reference or category, and amount for each unit of equipment and the applicable Blue Book hourly operating cost for each unit of equipment and invoices for all rental equipment. The designation includes the manufacturer's name or trademark, model number, and year of manufacture.
- c. Quantities of materials and prices.
- d. Transportation charges on materials, free on board (F.O.B.) at the job site.
- e. Cost of workers' compensation insurance premiums, all applicable insurance premiums, unemployment insurance contributions, and social security tax and fees or dues required by a collective bargaining agreement. Express each of these items of cost as a percentage of payroll, except fees or dues, which should be expressed as a cost per hour.
- f. Documentation showing payment for all surveying, professional, or similar specialized Work not normally a part of a County contract.

- g. If materials are taken from Contractor's stock and original receipted invoices for the materials and transportation charges do not exist, provide an affidavit and certify all of the following:
 - (1) The materials were taken from the Contractor's stock.
 - (2) The quantity shown was actually used for the force account Work.
 - (3) The price and transportation costs represent the actual cost to the Contractor.
- h. Documentation showing payment to trucking firms and owner-operators. Submit documentation showing owner-operations status. When the trucking is subject to prevailing wage, submit payroll and equipment usage records according to 109.05.C.1.a, 109.05.C.1.b, and 109.05.C.1.e.
- i. Provide "receipted invoices" for all costs substantiated by an invoice.

If only part of the expenditure represented by an invoice is applicable to force account work, or if the invoice represents expenditure for more than one item of work, clearly indicate the actual amount of expenditure applicable to each item of work.

2. Labor. The County will pay the wages and fringe benefits currently in effect for each hour the Work is performed by all labor employed in the Work and all foremen in direct charge of the specific operation. The County will pay an additional 38 percent mark up on these wages and benefits. "Fringe benefits" are the actual costs paid to, or on behalf of, workmen by reason of health and welfare benefits, pension fund benefits, or other benefits, when such amounts are required by prevailing wage laws or by a collective bargaining agreement or other employment contracts generally applicable to the classes of labor employed on the Project.

The County will pay the actual itemized cost, without mark up, of the following payroll taxes and legally required insurances:

- a. Social Security Tax.
- b. Medicare Tax.
- c. Ohio Workers' Compensation Premiums.
- d. State and Federal Unemployment Insurance.
- e. Longshore and Harborworkers' Compensation Insurance for Work from a barge or ship, or unloading material from a barge or ship.

Provide itemized statements in addition to the documentation requirements for all labor including the name, classification, date, daily hours, total hours, rate, and amount. If any person is paid more than the one rate, a separate listing shall be made for that person for each rate paid. Provide itemized statements for Ohio Workers' Compensation insurance premiums, all applicable insurance premiums, State and Federal Unemployment Insurance contributions, and Social Security Tax and fees or dues required by a collective bargaining agreement. Express each of these items of cost as a percentage of payroll, except fees or dues, which shall be expressed as a cost per hour.

Instead of itemizing the cost of Social Security Tax, Ohio Workers' Compensation, and State and Federal Unemployment Insurance, the Contractor may elect to receive as compensation for these payroll taxes and premiums, an amount equal to 22 percent of the paid wages. If the Contractor pays fringes directly to the worker in lieu of paying into a fringe benefit program, then the County will treat these fringe payments as paid wages when calculating the allowed 22 percent compensation.

The County will pay, without mark up, the actual itemized cost of fees and dues paid to labor unions or to business associations when they are based on payroll hours and required by a collective bargaining agreement.

The County will not pay for wages or benefits for personnel connected with the Contractor's forces above the classification of foreman that have only general supervisory responsibility for the force account Work.

If the foreman or timekeeper is employed partly on force account Work and partly on other Work, the Contractor shall prorate the number of hours between the force and non-force account Work according to the number of people on each task as shown on payrolls.

The County will pay the prevailing wage and fringe rates that apply to the Project for the classifications required for Extra Work. The Contractor must provide payroll records for pay rates higher than the prevailing wages and establish that the higher than prevailing rates are paid for original Contract Work. The County will pay for foremen and time keepers not covered by prevailing wages not more than the salaried rate they receive when engaged in original Contract Work.

The County will pay actual costs for subsistence and travel allowances when such payments are required by the collective bargaining agreement or other employment contracts applicable to the classes of labor employed on the Project. The County will not pay a percent mark up on these costs.

3. Materials. The County will pay the Contractor's actual invoice costs, including applicable taxes and actual freight charges, for Engineer-approved materials the Contractor uses in force account Work. The County will pay an additional 15 percent mark up on these costs.

Freight or hauling costs charged to the Contractor and not included in unit prices shall be itemized and supported by invoices. The cost of owned or rented equipment used to haul materials to the project is not part of the materials cost. Such equipment, when used for hauling materials, shall be listed under cost of equipment.

Provide itemized statements in addition to the documentation requirements for all equipment including the quantity and price of each material and transportation charges free on board (F.O.B.) at the job site. Attach invoices to support the quantities of materials used, unit prices paid and transportation charges.

If the Contractor uses materials from the Contractor's stock and original receipted invoices for the materials and transportation charges do not exist, the County and the Contractor will agree on a price that represents the actual cost to the Contractor. Provide an affidavit and certify all of the following:

- a. The materials were taken from the Contractor's stock.
- b. The quantity shown was actually used for the force account work.
- c. The price and transportation costs represent the actual cost to the Contractor.

Do not incorporate materials into the Work without a price agreement.

4. Equipment.

a. General. The County will pay the Contractor's costs for equipment the Engineer deems necessary to perform the force account Work for the time directed by the Engineer or until the Contractor completes the force account Work, whichever happens first. The County will pay the Contractor the established rates for equipment only during the hours that it is operated, except as otherwise allowed elsewhere in these Specifications. The County will pay for non-operating hours at the idle equipment rate as specified in 109.05.C.4.c. Report equipment hours to the nearest 1/2 hour. The established equipment rates in these Specifications include compensation for overhead and profit except as otherwise specified.

The County will pay for use of Contractor-owned equipment the Engineer approves for force account Work at established rates. The County will pay the rates, as modified in 109.05.C.4.b, given in the Rental Rate Blue Book for Construction Equipment (Blue Book) published by Equipment Watch, a unit of Interec Publishing, a PRIMEDIA Company.

Tool trucks will be allowed for compensation if they are used at the force account site. Only the tools used from the tool truck will be allowed for compensation. Tools in the tool truck that are not used in the force

account work will not be compensated. A tool trailer that remains at the Contractor's office or yard will not be allowed on the force account work. Tool trailers that are taken to the force account site will be allowed for compensation along with the tools used on the force account work that were taken from the trailer.

Provide, and the Engineer will confirm, the manufacturer's ratings and manufacturer-approved modifications required to classify equipment for rental rate determination. For equipment with no direct power unit, use a unit of at least the minimum recommended manufacturer's rating.

The County will not pay rental for small tools or equipment that show a daily rate less than \$5.00 or for unlisted equipment that has a value of less than \$400.

Treat traffic control devices used in Maintaining Traffic and owned by the Contractor as owned equipment. Allowed rates for common traffic control devices and concrete barrier that are not listed in the Blue Book will be as determined by the County.

Use Engineer-approved equipment in good working condition and providing normal output or production. The Engineer may reject equipment not in good working condition or not properly sized for efficient performance of the Work.

For each piece of equipment used, whether owned or rented, provide the Engineer with the following information:

- (1) Manufacturer's name or trademark.
- (2) Equipment type.
- (3) Year of manufacture.
- (4) Model number.
- (5) Type of fuel used.
- (6) Horsepower rating.
- (7) Attachments required, together with their size or capacity.
- (8) All further information necessary to determine the proper rate.
- (9) Dates, daily hours, total hours of actual operation and idle time,
- (10) Blue Book rate with reference or category,
- (11) Amount
- (12) Applicable Blue Book hourly operating cost
- (13) Invoices for all rental equipment.

b. Hourly Owned Equipment Rates. The base rate for the machine and attachments represent the major cost of equipment ownership, such as depreciation, interest, taxes, insurance, storage, and major repairs. The hourly operating rate represents the major costs of equipment operation, such as fuel and oil lubrication, field repairs, tires, expendable parts, and supplies.

For all equipment used on force account Work, determine, and have the County confirm, the hourly owned equipment rates as follows:

$$HOER = [RAF \times ARA \times (R / 176)] + HOC$$

Where:

HOER = hourly owned equipment rate

RAF = regional adjustment factor shown in the Blue Book

ARA = age rate adjustment factor shown in the Blue Book

R = current Blue Book monthly rate

HOC = estimated hourly operating cost shown in the Blue Book

However, compensation for equipment normally used on a 24 hours per day basis will not exceed the monthly rate plus adjustments and operating costs. The Contractor will be paid no more than the monthly rate plus

adjustments and operating costs for a single piece of equipment regardless of the number of Force Accounts the piece of equipment is used in during that month.

The rate adjustment factor assigned to any attachment will be the yearly factor as determined for the base equipment.

When multiple attachments are included with the rental equipment, only the attachment having the highest rental rate will be eligible for payment, provided that the attachment has been approved by the Engineer as being necessary to the force account Work.

When a piece of owned equipment is not listed in the Blue Book, use the rate for similar equipment found in the Blue Book or use 6 percent of the purchase price as the monthly rate (*R*) and add the hourly operating rate found in the Blue Book for similar equipment of the same horsepower.

For equipment brought to the Project exclusively for force account Work and on the Project for less than a month, multiply the monthly rate (*R*) by the factor listed below:

TABLE 109.05-1

Working Hours	Factor
Less than or equal to 8.0	2.00
8.1 to 175.9	2.048 - (hours/168)
176 or greater	1.00

The term "WORKING HOURS," as used in Table 109.05-1, includes only those hours the equipment is actually in operation performing force account Work; apply the factor, as determined above, to these actual working hours only. Calculate compensation for any idle time according to 109.05.C.4.c without application of the factor.

The County will pay as working equipment for the entire Workday equipment used intermittently during the Workday. The following criteria qualify for intermittently used equipment:

- (1) Equipment dedicated to the force account exclusively all day and not used on bid work.
- (2) Equipment works before and after the intermittent idle period and its total working time during the Workday is at least 2 hours.

Equipment that is captive to the force account work (i.e., it must remain at the force account site), but does not qualify for intermittently used owned equipment, is paid as idle equipment according to Section 109.05.C.4.c. for the time it is not working.

c. Hourly Idle Equipment Rate. For equipment that is in operational condition, on site, and necessary for force account Work, but is idle, the County will pay an hourly idle equipment rate. The procedure to determine the hourly idle equipment rate for Contractor owned equipment is as follows:

$$HIER = RAF \times ARA \times (R / 176) \times (1/2)$$

Where:

HIER = Hourly idle equipment rate.

RAF = Regional adjustment factor shown in the Blue Book.

ARA = Age rate adjustment factor shown in the Blue Book.

R = Current Blue Book monthly rate.

If rented equipment necessary for force account Work is idle, the County will pay the Contractor for the actual invoiced rates prorated for the duration of the idle period. The actual invoiced rates must be reasonably in line with the Blue Book rates and approved by the Engineer. The County will pay a 15 percent mark up for overhead and profit for the actual invoiced rates during the idle period.

The County will not pay idle owned equipment costs for more than 8 hours in a 24-hour day or 40 hours in a week.

The County will not pay for inoperable equipment.

The Engineer may order specific equipment to the site up to 5 days before its planned usage. If this equipment is not used for other Work, the County will pay for it as idle equipment until used.

The County will pay for the cost of idle owned or rented equipment when the Work was suspended for the convenience of the County. The County will pay as working equipment for the entire Workday equipment used intermittently during the Workday. The County will not pay the cost of idle equipment when the Work was suspended by the Contractor for the Contractor's own reasons.

The County will only pay for the number of Calendar Days during the existence of the suspension. The County will not compensate the Contractor for days that the Engineer determined were lost to weather.

The County will only pay for equipment physically located at the Project site that was received to prosecute the scheduled Work during the delay.

Compensation for idle equipment will stop at the completion of the force account Work or at the end of the suspension of Work.

d. Rented Equipment. The County will pay a 15 percent mark up for overhead and profit for all rented equipment, its corresponding Blue Book hourly operating costs, and State and Local sales tax.

(1) Equipment Rented Solely for Force Account Work. If the Contractor rents or leases equipment from a third party exclusively for force account Work, the County will pay the actual invoiced amount. The actual invoiced rates must be reasonably in line with the Blue Book and approved by the Engineer. The County will pay a 15 percent mark up for overhead and profit for all rented equipment paid for by the actual invoices. Add the Blue Book hourly operating cost to the marked up actual invoiced rates.

(2) Equipment Rented for Original Contract Work, but Used for Force Account Work. If the Contractor uses rented equipment currently on the Project for original Contract Work to perform force account Work, then determine the hourly outside-rented equipment rate as follows:

$$HRER = (HRI \times 115\%) + HOC$$

Where:

HRER = hourly rented equipment rate

HRI = hourly rental invoice costs prorated for the actual number of hours that rented equipment is operated solely on force account Work. Use a monthly invoice rate divided by 176, a weekly invoice rate divided by 40, or a daily invoice rate divided by 8.

HOC = hourly operating cost shown in the Blue Book

The County will not compensate for rental rates that exceed the Blue Book rates unless approved in advance of the Work by the Engineer.

e. Moving of Equipment. The County will also pay for the time required to move needed equipment to the location of the force account Work and to return it to its original location. The County will pay for loading and transportation costs instead of moving time if equipment is moved by means other than its own power. Moving time back to the original location or loading and transportation costs will not be allowed if the equipment is used at the site of the force account Work on contract items or related Work.

The County will consider the actual cost of transferring the equipment to the Project and returning it to the original location as an additional expense and pay for it as specified, for equipment moved on the Project exclusively for force account Work.

The Engineer will confirm the original location of the equipment before the Contractor moves and uses it for force account Work.

If the equipment is transported by a common carrier, the allowance is the invoiced amount paid for the freight plus 15 percent. However, if the Contractor's forces transport the equipment, the allowable compensation will be Blue Book rate of the hauling unit and hourly Blue Book operating cost plus the driver's wages and the cost of loading and unloading the equipment calculated according to 109.05.C.2.

5. Foreman's Transportation. The County will pay the Blue Book rate for every hour the foreman's truck is on the force account site or moving to or from the site. This rate includes equipment cost, fuel and lubricants, overhead, profit, and mobile phone or two-way radios.

6. Subcontract Work. For Work performed by an approved subcontractor, the County will pay an amount to cover administrative costs pursuant to Table 109.05-2. No additional mark-up is allowed for work of a sub-subcontractor or trucking services employed by a subcontractor.

TABLE 109.05-2

Subcontractor Force Account Costs (109.05.C.2 through 109.05.C.5)	Mark-up Amount
Up to \$10,000	5% of Subcontractor Force Account Cost (\$100 Min.)
\$10,001 to \$500,000	5% of Subcontractor Force Account Costs
Over \$500,000	\$25,000 + 2.5% of Subcontractor Force Account amount over \$500,000 to a maximum of \$37,500

7. Final Adjustment to Premium for Contract Bonds: The final bond premium amount for the payment and performance bonds will be computed based on the actual final contract value. For the purpose of computing a bond premium adjustment the actual final contract value is defined as the whole sum of money, excluding any bond premium adjustment, which is passed from the County to the contractor as a result of the completion of the Work. If the actual final contract value is different from the original contract value, the premium shall be adjusted accordingly; either by refund of part of the original bond premium by the contractor if the original contract value is larger than the actual final contract value; or by payment of additional bond premium by the County if the original contract value is smaller than the actual final contract value. Additional payment by the County or refund by the contractor will be based on the difference between the invoiced bond premium for the original contract value and the invoiced bond premium for the actual final contract value without any markup. A final bond premium adjustment will not be made when the actual final contract value differs from the original contract value by less than \$ 40,000.00.

8. Trucking.

- a. Trucking that is not subject to prevailing wage will be paid at the invoiced cost plus administrative costs pursuant to Table 109.05-3.

TABLE 109.05-3

Trucking Invoice Costs	Mark-up Amount
Up to \$10,000	5% of Subcontractor Force Account Cost (\$100 Min.)
\$10,001 to \$500,000	5% of Invoice Costs
Over \$500,000	\$25,000 + 2.5% of invoice amount over \$500,000 to a maximum of \$37,500

- b. Trucking that is subject to the prevailing wage law will be compensated according to 109.05.C.1, 109.05.C.2, 109.05.C.4, 109.05.C.6, 109.05.C.10, and 109.05.C.11.

Provide documentation showing payment to trucking firms and owner-operators and owner-operations status. When the trucking is subject to prevailing wage, submit payroll and equipment usage records according to 109.05.C.2 and 109.05.C.4.

9. Professional and Specialized Work. The following Work, when performed by a firm hired by the Contractor, is paid at the reasonable and fair market invoiced cost plus a 5 percent mark up. The mark up is limited to \$10,000 for all the Work performed by the firm.

- a. Surveying.
- b. Engineering design.
- c. Specialized Work that is not normally part of a County Contract and is not normally subject to prevailing wage.
- d. Emergency Work to eliminate a hazardous condition.
- e. Installation, periodic maintenance, and removal of traffic control devices under Item 614 performed by a traffic control service or rental company, provided the workers are not on the Project full-time. Maintenance of Traffic services performed by LEO.
- f. Other professional or specialized Work not contemplated at the time of Bid.

Provide documentation showing payment for professional and specialized Work.

10. Payment for Force Account Work.

Submit an analysis of estimated cost prepared in accordance with 109.05C for work that will be performed on a force account basis. Attach an original affidavit to the analysis stating:

"Labor rates shown are the actual rates paid for labor, unit prices for materials and rates for owned and rented equipment have been estimated on the basis they are not in excess of those charged in the area in which the work will be performed."

The Engineer will process an Estimated Cost of Force Account (ECFA) if the amount of the force account work is likely to be greater than \$100,000 and is expected to take more than two weeks to complete. The Engineer will process an Actual Cost of Force Account (ACFA) to make any necessary adjustment between the ECFA and the final itemized costs for the force account work.

For force account work estimated to be less than \$100,000 and anticipated to require less than two weeks to perform, the Engineer will process an Actual Cost of Force Account (ACFA) at the conclusion of the work.

Submit biweekly itemized statement of costs prepared from the Daily Force Account Records to the Engineer as the work is being performed. The Engineer will process estimates as the force account work is performed. Payment will only be made upon receipt of the Contractor's itemized statement of costs.

Upon conclusion of the work performed by an ECFA or work performed by an ACFA submit an itemized statement of the actual costs prepared from the Daily Force Account Record.

Attach an original affidavit to the hard copy stating:

"The name, classification, total hours worked and rates paid each person listed on the Summary of Actual Cost are substantiated by actual records of persons employed on the force account work. All unit prices for materials and rates for owned and rented equipment listed on the Summary of Actual Costs are substantiated by actual records of materials and equipment actually used in performance of the force account work and the price of any owned equipment not previously agreed upon does not exceed prices charged for similar equipment in the area in which the work was performed."

Daily Force Account Records signed by both the County and Contractor will govern over other County and Contractor records subject to the following:

(1) When the Contractor is subject to a Union Contract that requires a minimum number of paid hours, the compensation will be for the verified contract minimum hours.

(2) Material quantity disagreements will be resolved by field measurements of the installed quantities or the Engineer's estimate of the amount of temporary or un-measurable material used. The Engineer may also review and consider the Contractor's material invoices and material certifications to make the final determination.

In the event the Contractor declines to sign the Daily Force Account Record, the County's records shall govern. Any resulting dispute must be pursued in accordance with 104.05.

The County will not make final payment for Work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements of the cost of such force account Work and Cuyahoga County and the Contractor have entered into a Supplemental Agreement.

D. Delay Costs.

1. General. If the County agrees that it has caused a delay, the County will pay for the costs specified in 109.05.D as allowed by 108.06.D, unless these costs have been previously paid as listed in 109.05.B or 109.05.C. Such payment constitutes full compensation for any and all delay costs.

The County will make no payment for delays occurring during the period from December 1 to April 30 unless the Contractor's approved progress schedule depicts critical Work occurring throughout this period.

The County will make no payment for delay costs before the Contractor submits an itemized statement of those costs. Provide the content specified in 109.05.C.1, for the applicable items in this statement and as follows:

- a. Proof of cost of Superintendent, or other project staff salaries, wages, and payroll taxes and insurance.
- b. Proof of cost of office rent, utilities, land rent, and office supplies.
- c. Proof of escalated cost for labor and material.
- d. Proof of material storage costs.

2. Allowable Delay Costs.

a. Extended Labor. Compute labor costs during delays as specified in 109.05.C.2 for all non-salaried personnel remaining on the Project as required under collective bargaining agreements or for other Engineer-approved reasons.

b. Escalated Labor. To receive payment for escalated labor costs, demonstrate that the County-caused delay forced the Work to be performed during a period when labor costs were higher than planned at the time of Bid. Provide adequate support documentation for the costs, allowances, and benefits specified in 109.05.C.2. The County will pay wages and fringes with a 15% mark-up to cover administrative costs.

c. Idle Equipment or Equipment Demobilization. The County will pay the Contractor according to 109.05.C.4.c for idle equipment, other than small tools, that must remain on the Project during the delays. The County will pay the Contractor's transportation costs to remove and return equipment not required on the Project during the delays. No other equipment costs are recoverable as a result of delay.

d. Material Escalation or Material Storage. The County will pay the Contractor for increased material costs or material storage costs due to the delay. Obtain the Engineer's approval before storing materials due to a delay. Payment will be based upon the accepted quantity of work performed during the period for which escalated costs have been approved. The County will pay increased material costs with an 8% mark-up to cover administrative costs and material waste inherent to the work.

e. Field Overhead. The County will pay any Contractor or subcontractor for field overhead costs which include the cost of supervision, field office and office supplies, and utilities for which payment is not provided for in 109.05.D.2.f, during a delay period provided all of the following criteria are met:

(1) The Contractor or subcontractor has incurred an excusable, compensable delay that delays the Work at least 10 Calendar Days beyond the original Completion Date. These days are cumulative throughout the project.

(2) The delay for which payment of field overhead is sought is only due to delays defined in 108.06.D.3 and 108.06.D.5 or for delays due to any revised Work specified in 104.02.B or 104.02.F that is not performed under 109.05.C Force Account.

The County will pay the salary and fringes plus a 5 percent mark up for field personnel identified in Table 109.05-4.

Table 109.05-4

Original Contract Amount	Field Personnel
Up to \$5,000,000	One Superintendent
\$5,000,001 to \$50,000,000	One Superintendent, One Assistant Superintendent or One Engineer, One Clerk
Over \$50,000,000	One Superintendent, One Assistant Superintendent, One Engineer, One Clerk

f. Home Office Overhead. The County will pay the Contractor for home office overhead, unabsorbed home office overhead, extended home office overhead, and all other overhead costs for which payment is not provided for in 109.05.D.2.e, including overhead costs that would otherwise be calculated using the Eichleay formula or some other apportionment formula, provided all of the following criteria are met:

(1) The Contractor has incurred an excusable, compensable delay that delays the Work at least 10 Calendar Days beyond the original Completion Date. These days are cumulative throughout the project.

- (2) The delay for which payment of home office overhead is sought is only due to delays defined in 108.06.D.3 and 108.06.D.5.

Any subcontractor that has approved C-92's for subcontracted work totaling \$4,000,000 or more is eligible for reimbursement of home office overhead provided the criteria set forth in 109.05.D.2.f.(1) and 109.05.D.2.f.(2) are met.

Payment will be made for every eligible day beyond the original contract completion date at the rate determined by 109.05.D.2.f.i. Payment for eligible days occurring during an unanticipated construction period will be calculated in accordance with 109.05.D.2.f.ii. Payment for eligible days occurring during an unanticipated winter period will be calculated in accordance with 109.05.D.2.f.iii.

(i) Home Office Overhead Daily Rate

Calculate the home office overhead daily rate using the following formula:

$$\text{Daily HOOP} = (A \times C)/B$$

Where:

A = original contract amount

B = contract duration in Calendar Days

C = value from Table 109.05-5

TABLE 109.05-5	
Original Contract Amount	C
Up to \$5,000,000	0.08
\$5,000,001 to \$25,000,000	0.06
Over \$25,000,000	0.05

Daily HOOP = home office overhead daily rate

Contract duration term, B, includes every Calendar Day from the execution of the Contract, unless otherwise specified by the County, to the original Contract Completion Date.

When the Contractor requests home office overhead compensation for a subcontractor, use the above formula to calculate the subcontractor's Daily HOOP; however, in the subcontractor calculation, A is equal to the subcontractor's portion of the original contract amount as determined by the sum of all approved C-92's issued for the subcontracted work.

(ii) Home Office Overhead Payment for an Unanticipated Construction Period

Calculate the home office overhead payment for an unanticipated construction period occurring between May 1 and November 30 using the following formula:

$$CP\ HOOP = \text{Daily HOOP} \times D$$

Where:

D = sum of all excusable, compensable delays in Calendar Days minus the sum of all delays due to 108.06.D.1 and 108.06.D.4 in Calendar Days

Daily HOOP = daily home office overhead rate

CP HOOP = home office overhead payment for an unanticipated construction period occurring between May 1 and November 30

The excusable, compensable delay term, D, is the additional, unanticipated extended period for work performed between May 1 and November 30 in Calendar Days.

(iii) Home Office Overhead Payment for an Unanticipated Winter Period

Calculate the payment for home office overhead for an unanticipated winter period occurring between December 1 and April 30 using the following formula:

$$WP\ HOOP = Daily\ HOOP \times F \times D/E$$

Where:

D = sum of all excusable, compensable delays in Calendar Days minus the sum of all delays due to 108.06.D.1 and 108.06.D.4 in Calendar Days

E = sum of all excusable, compensable delays in Calendar Days plus the sum of all excusable, non-compensable delays in Calendar Days

F = 151 for a non leap year or 152 for a leap year

Daily HOOP = daily home office overhead rate

WP HOOP = home office overhead payment for an unanticipated winter period occurring between December 1 and April 30

Payment for Home Office Overhead for an unanticipated winter period will not be made when the value of the remaining work is 15% or less of the estimated final contract value.

(iv) Total Home Office Overhead Payment

Calculate the total home office overhead payment using the following formula:

$$Total\ HOOP = CP\ HOOP + WP\ HOOP$$

Where:

CP HOOP = home office overhead payment for an unanticipated construction period occurring between May 1 and November 30

WP HOOP = home office overhead payment for an unanticipated winter period occurring between December 1 and April 30

Total HOOP = total home office overhead payment

E. Changes in Materials

Changes in material specifications that result in increased cost to the Contractor are compensated by lump sum adjustment to the reference number. The allowed compensation is equal to the invoice supported material cost increase plus 15 percent markup for profit and overhead.

Material cost savings resulting from a specification change shall be credited to the project by a lump sum adjustment to the reference number plus a 15 percent markup if the originally specified material has not been ordered.

If the original material was ordered before the Contractor was informed of the change, the savings markup allowed is 2.5 percent in order to exclude profit on the original bid price and pay only for incurred overhead.

109.06 Directed Acceleration. The Engineer may order the Contractor to accelerate the Work to avoid delay costs or to complete the Project early. The Engineer and the Contractor will negotiate acceleration costs.

109.07 Inefficiency. Payment for efficiency losses is limited to 5 percent unless otherwise determined by the Engineer. The County will compensate for all such costs according to 109.05.

109.08 Unrecoverable Costs. The Contractor is not entitled to additional compensation for costs not specifically allowed or provided for in 109.05 including, but not limited to, the following:

A. Loss of anticipated profit.

B. Consequential damages, including loss of bonding capacity, loss of bidding opportunities, insolvency, and the effects of force account Work on other projects, or business interruption.

- C. Indirect costs.
- D. Attorneys fees, claim preparation expenses, and the costs of litigation.
- E. Interest before certification of claim.

109.09 Estimates

If satisfactory progress is being made, the Contractor will receive monthly payments equaling the Work and materials in place. The monthly payment is approximate, and all partial estimates and payments are subject to correction in the Final Estimate and payment. No monthly payments, as a rule, will be made for an amount less than \$500.00. Payment for Work and materials shall not, in any way, prevent later rejection when defective Work or material is discovered, or constitute acceptance under 109.11 or 109.12.

Except for estimates generated during Project Finalization, the County will not pay an estimate until the Contractor certifies to the Engineer that the work for which payment is being made was performed in accordance with the contract. Certification will be made on forms provided by the County.

The County may pay estimates twice each month if the Engineer concludes the amount of work performed is sufficient.

No estimate or payment shall be construed as acceptance of defective Work or improper materials.

The County will not pay the adjusted final estimate until the Contractor remedies all defective Work and accepted Work damaged by the Contractor's operations.

On or about the first day of each month the Engineer will make an approximate estimate of the value of the Work completed and of materials delivered which will become a part of the Work. In accordance with sections 153.12 and 153.14 of the ORC, ninety-two percent (92%) of the estimate will be paid to the Contractor until the Work is fifty percent (50%) complete. After the Work is fifty percent (50%) completed, further completed Work under the contract shall be paid for at the rate of one hundred percent (100%). In accordance with section 5555.66 of the ORC, materials delivered but not incorporated in the finished Work may be paid for at not more than ninety percent (90%) of the value of the material until the material is incorporated in the finished Work. The Contractor shall furnish to the Engineer such detailed information as he/she may request to aid him/her in preparation of monthly estimates.

In accordance with section 153.13 of the ORC, from the date the contract is fifty percent (50%) complete, as evidenced by payments in the amount of at least fifty percent of the contract to the Contractor, except in the case of contracts the total cost of which is less than fifteen thousand dollars, all funds retained pursuant to sections 153.12 and 153.14, of the ORC for the faithful performance of Work shall be deposited in the escrow account designated in section 153.63 of the ORC. After the contract is fifty percent complete, no further funds shall be retained. When the Engineer determines that the major portion of the project is substantially completed and occupied, or in use, or otherwise accepted, and there exists no other reason to withhold retainage, the retained percentages held in connection with such portion shall be released from escrow and paid to the Contractor, withholding only that amount the Engineer determines necessary to assure completion.

Estimates may be allowed twice each month if in the judgment of the Engineer the amount of Work performed is sufficient to so warrant.

Should any defective Work or material, or acceptable Work that has been damaged by the Contractor's operations, be discovered previous to the final acceptance or should a reasonable doubt arise previous to the final acceptance as to the integrity of any part of the completed Work, the estimate and payment for such defective or questioned Work shall not be allowed until the defect has been remedied and cause for doubt removed.

The Engineer may withhold indefinitely payment of any or all estimates until the Contractor complies with any or all of the orders given by the Engineer in compliance with and by virtue of the terms of the Contract.

109.091 Acceptance and Final Payment

The Engineer shall within 30 days after the completion of the construction by the contractor, and after he has satisfied himself by test, examination or otherwise that the Work has been finally and fully completed in accordance with the plans and specifications, make a final estimate of the Work done under the contract, the value thereof and the balance due to the Contractor.

Cuyahoga County shall, in accordance with 153.14 ORC, pay the entire balance so found to be due within 30 days after such final estimate is made and certified. All prior estimates and payments shall be subject to correction in the final estimate and payment, but in the absence of error or manifest mistakes, it is agreed that all estimates certified by the Engineer, when approved by Cuyahoga County, shall be conclusive of the Work done and materials furnished.

Before payment is made on the final estimate the Contractor shall submit a signed and notarized affidavit, on the form prepared by the Engineer, which states all bills for labor, materials, and services rendered by others in connection with the contract have been paid in full and all claims and obligations arising in connection with the Work have been satisfactorily settled. Cuyahoga County may further request waivers of liens from each and every subcontractor or supplier for the Contractor.

Before payment is made on the final estimate the Contractor shall also submit the affidavit required by 108.10.

The date of approval of the final estimate by Cuyahoga County shall be the date of final acceptance for the Project.

109.10 Payment for Delivered Materials

Partial payments may be made up to 90% of the delivered cost of approved materials to be incorporated in the Work, when delivered on the project or stored in acceptable storage places in the vicinity of the project.

Partial payments may be made up to 90% of the cost of approved materials to be incorporated in the Work when assigned to the Contractor, if the Engineer determines that it is not practical to deliver the material to the project site. This provision shall be applicable only to bulky materials that are durable in nature and represent a significant portion of the project cost, such as aggregates, steel and precast concrete. Small warehouse items may not be included.

No partial payment will be made on living or perishable plant materials until planted.

All partial payments are subject to the provisions of 5555.66, ORC.

109.11 Partial Acceptance.

Upon completion of a portion of the Work, the Contractor may request acceptance of a completed portion of the Work.

An inspection may be performed on a completed portion of the project roadway section provided:

- A. All safety items are in place including permanent pavement markings.
- B. Traffic is in its final pattern.
- C. A completed portion of the project constitutes a completed geographic section of the project or a direction of traffic on a divided highway.
- D. Is in accordance with other contract provisions.

An inspection may be performed on a completed bridge provided:

- A. All work on the bridge and approaches are complete, including all safety items and permanent pavement markings.
- B. The Contractor will not return to the bridge for any work except as allowed in D.
- C. Traffic is in its final pattern.
- D. Painting of structural steel is either completed or scheduled to be performed.
- E. Is in accordance with other contract provisions.

The Engineer will grant written partial acceptance for that portion of the Work or reject the Contractor's request. Such written partial acceptance will designate what portion of the Work is accepted, the date of acceptance, and the warranty provisions started by the partial acceptance.

Partial acceptance will relieve the Contractor of maintenance responsibility for the designated portion of the Work. This does not relieve the Contractor of responsibility to correct defective Work or repair damage caused by the Contractor or waive any other remedy to which the County is entitled at law or in equity.

109.12 Final Acceptance and Termination of Contractor Responsibility.

A. Final Inspection. The County will perform a Final Inspection for the sole purpose of relieving the Contractor of maintenance responsibility for the Work.

The Final Inspection shall be a limited visual review of the Work and shall only serve as the County's verification that the Work appears substantially complete. Final Inspection does not waive any available rights or remedies of the County, nor divest the Contractor of any responsibility for compliance with the contract or liability for damages.

Notify the Engineer when the Project is complete and all of the Engineer's punch list items are complete. If the Engineer agrees the Project is complete, then within 10 business days the Engineer will inspect the Work and categorize it as one of the following:

1. Unacceptable or not complete.
2. Substantially complete with punch list items found by the Engineer.
3. Substantially complete.

If the Engineer finds the Work substantially complete or substantially complete with punch list items, then the Contractor's maintenance responsibilities end on the day of the Final Inspection, except for any maintenance related to unfinished punch list items. This does not relieve the Contractor of responsibility to correct defective Work or repair damage caused by the Contractor or waive any other remedy to which the County is entitled at law or in equity. The Engineer will issue a Final Inspection Report that will document the findings of the inspection and start any warranty period.

B. Punch List. The Engineer will issue to the Contractor a written punch list of work required as a condition of final acceptance. The Engineer's punch list will stipulate a reasonable time to complete the required Work. Failure of the Contractor to complete the punch list items by the stipulated time will result in the assessment of fifty percent of the Liquidated Damages according to 108.07 for each Calendar Day for every day beyond the stipulated time the punch list work remains incomplete and beyond the revised Completion Date.

C. Finalization. The Contractor shall accept the final quantities as determined by the Engineer or provide a written notice indicating the reason for disagreement within 30 Calendar Days of receiving the Engineer's list of final quantities. The prescribed 30 Calendar Day period can be modified by mutual agreement of the Contractor and the Engineer. If no notice of disagreement is received, then the final payment will be based on the Engineer's list of final quantities.

Supply all documents necessary for Project finalization within 60 Calendar Days from the date that the Work is physically complete. These documents include:

1. Delinquent material certifications.
2. Delinquent certified payrolls or required revised payrolls.
3. Wage affidavit required by ORC Chapter 4115 on projects without any Federal funding.
4. Delinquent force account records.
5. If applicable, DBE or SBE affidavits.
6. Any other document required to complete finalization of the project.

Failure to submit these acceptably completed documents will result in an administrative fee of \$100 per Calendar Day for every day that any of the required documents remain delinquent, starting 30 Calendar Days after receipt of written notification from the Engineer of a document deficiency.

D. Acceptance and Final Payment. Final payment is based on:

1. The agreed final quantities or as determined by the Engineer if agreement is not possible, no compensation for unauthorized Work is allowed.
2. Acceptance by the Engineer.
3. Receipt of acceptable finalization documents.
4. Contractor certification that the Work was performed in accordance with the contract.

E. Termination of Contractor's Responsibility. The contract will be considered complete when all Work has been completed, the final inspection has been made, the Work has been accepted and the amount certified in the final estimate has been approved in writing by Cuyahoga County. The Contractor will then be released from further obligations except that the Contractor and Surety will still be responsible under the provisions of ORC 153.56 with regards to any money due for labor or Work performed or materials furnished on the project for the time period stipulated in ORC 153.56. Completion of the Contract does not relieve the Contractor of any responsibilities to properly perform or correct the Work or to repair damage or waives any remedies to which the County is entitled at law or in equity.

SECTION 200
SPECIAL PROVISIONS

**Cuyahoga County
Department of Public Works
General Notes**

DESCRIPTION OF WORK

THE INTENT OF THIS PROJECT IS TO PERFORM PAVEMENT CRACK SEALING ON A TASK ORDER BASIS THROUGHOUT CUYAHOGA COUNTY WITHIN THE PUBLIC RIGHT OF WAY FOR THE DURATION OF THIS CONTRACT, OCTOBER 31, 2014. AT VARIOUS TIMES THROUGHOUT THE DURATION OF THE CONTRACT THE CONTRACTOR WILL BE ASKED TO REVIEW ONE OR MORE ROADS AND PROVIDE AN ESTIMATE BASED UPON THE CONTRACT PRICES AND THE CONDITION OF THE ROAD. BASED UPON REVIEW OF THE CONTRACTORS ESTIMATE THE COUNTY WILL DECIDE WHICH ROAD TO PROCEED WITH AND A NOTICE TO PROCEED FOR ONE OR MORE ROADS WILL BE ISSUED TO THE CONTRACTOR. THE CONTRACTOR WILL HAVE FOUR (4) WEEKS FROM NOTICE TO PROCEED FOR EACH INDIVIDUAL TASK (CONSISTING OF ONE OR MORE ROADS) TO COMPLETE THE WORK. FOR THAT TASK NO WORK SHALL BE STARTED UNTIL NOTICE TO PROCEED FOR THAT TASK IS ISSUED BY THE COUNTY. THE QUANTITY LISTED IN THE BID FORM IS AN ESTIMATE FOR THE ANTICIPATED AMOUNT OF WORK TO BE PERFORMED DURING THIS CONTRACT. THE COUNTY RESERVES THE RIGHT TO INCREASE OR DECREASE THE AMOUNT OF ACTUAL WORK REQUESTED DURING THE CONTRACT PERIOD. NO MINIMUM QUANTITY OF MATERIAL OR OF WORK TO BE PERFORMED IS GUARANTEED.

2010 STANDARD SPECIFICATIONS

THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, SHALL GOVERN THIS IMPROVEMENT EXCEPT WHEN MODIFIED BY SPECIAL PROVISION, SUPPLEMENTAL SPECIFICATION, OR PROPOSAL NOTE.

UTILITIES

NO UTILITIES WILL BE IMPACTED BY THIS PROJECT.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL SUBSIDIARY AGREEMENT GOVERNING COMPLETION OF THIS PROJECT.

ADJUSTMENTS IN CONTRACT TIME

THERE WILL BE NO TIME EXTENSIONS FOR THIS PROJECT.

DEFINITIONS AND TERMS

WHEREVER THERE APPEARS, IN THE STANDARD SPECIFICATIONS (ODOT ITEMIZED CMS), SUPPLEMENTAL SPECIFICATIONS OR PROPOSAL NOTES, THE TERM "THE STATE", "DIRECTOR OF TRANSPORTATION", "DEPARTMENT", "DISTRICT CONSTRUCTION ENGINEER (DCE)", "ENGINEER", OR ANY OTHER TERM DESIGNATING ANY REPRESENTATIVE OR EMPLOYEE OF THE STATE OR ITS DEPARTMENT OF TRANSPORTATION, SUCH TERM SHALL, FOR THE PURPOSE OF THIS CONTRACT, BE CONSIDERED AND TAKEN AS MEANING AND DESIGNATING THE RESPECTIVE OFFICER OR EMPLOYEE OF CUYAHOGA COUNTY WHOSE DUTY OR FUNCTION IT IS TO DEAL WITH THE SUBJECT MATTER IN CONNECTION WITH WHICH SUCH TERM IS USED AND SPECIFICALLY:

THE STATE	- SHALL MEAN CUYAHOGA COUNTY.
DEPARTMENT	- SHALL MEAN THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR	- SHALL MEAN THE CUYAHOGA COUNTY DIRECTOR OF PUBLIC WORKS, HIS/HER DEPUTIES OR ANY ENGINEER DESIGNATED AS THE DIRECTOR'S REPRESENTATIVE.
DISTRICT CONSTRUCTION ENGINEER (DCE) OR ENGINEER	- SHALL MEAN THE AREA CONSTRUCTION ENGINEER, OR THE DULY AUTHORIZED AGENT OR REPRESENTATIVE OF THE CUYAHOGA COUNTY DIRECTOR OF PUBLIC WORKS OR THE CUYAHOGA COUNTY ENGINEER ACTING WITHIN THE SCOPE OF HIS/HER AUTHORITY FOR THE PURPOSES OF CONSTRUCTION ENGINEERING AND ADMINISTRATION OF THE CONTRACT.
LABORATORY	- SHALL MEAN ANY LABORATORY DESIGNATED BY THE COUNTY.

GENERAL PROVISIONS

ALL REFERENCES TO THE GENERAL PROVISIONS (SECTION 100) OF THE OHIO DEPARTMENT OF TRANSPORTATION'S CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOT CMS) THAT ARE CITED IN THE ITEMIZED SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, PROPOSAL NOTES, PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS SHALL, FOR THE PURPOSE OF THIS CONTRACT, BE CONSIDERED AND TAKEN AS MEANING THE CUYAHOGA COUNTY ENGINEER'S GENERAL PROVISIONS AS CONTAINED IN THE "CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET". THE SUBSECTION NUMBERS AND TOPICS USED IN THE COUNTY'S GENERAL PROVISIONS CORRESPOND TO THOSE CONTAINED IN THE ODOT CMS.

WORK ON MORE THAN ONE ROAD

THIS PROJECT INCLUDES WORK ON MORE THAN ONE (1) ROAD. THE CONTRACTOR MAY WORK ON TWO (2) OR MORE ROADS SIMULTANEOUSLY SUBJECT TO THE SPECIFIC WRITTEN APPROVAL OF THE ENGINEER. ONCE WORK HAS BEGUN ON A ROAD, THE CONTRACTOR MUST COMPLETE WORK ON THAT ROAD BEFORE CONTRACTOR MAY DEMOBILIZE FROM THAT ROAD. THE FOLLOWING REQUIREMENTS APPLY TO THIS CONTRACT:

1. THE REQUIREMENTS OF 108.03 SHALL APPLY SPECIFICALLY TO EACH ROAD.
2. THE REQUIREMENTS OF 108.04 SHALL APPLY SPECIFICALLY TO EACH ROAD. IN DETERMINING WHETHER THE CONTRACTOR HAS COMPLIED WITH THE REQUIREMENT TO ASSURE THE LEAST INTERFERENCE WITH TRAFFIC, THE ENGINEER SHALL ADDITIONALLY TAKE INTO CONSIDERATION SUCH FACTORS AS:
 - A. THE LENGTH AND DURATION OF LANE CLOSURES.
 - B. ACCESS TO DRIVEWAYS.
 - C. UNNECESSARY PERIODS OF INACTIVITY BY THE CONTRACTOR.
 - D. WHETHER THE OPENING OF WORK ON A SECOND ROAD WILL BE TO THE PREJUDICE OR DETRIMENT OF WORK ALREADY BEGUN ON ANOTHER ROAD.
3. THE REQUIREMENTS OF 108.05 SHALL APPLY SPECIFICALLY TO EACH ROAD. THE CONTRACTOR SHALL AT ALL TIMES EMPLOY SUFFICIENT LABOR AND EQUIPMENT FOR PROSECUTING THE SEVERAL CLASSES OF WORK TO FULL COMPLETION IN THE MANNER AND TIME REQUIRED BY THESE SPECIFICATIONS.
4. LIQUIDATED DAMAGES, BASED ON THE TOTAL CONTRACT AS SPECIFIED IN 108.07, SHALL APPLY FOR EACH CALENDAR DAY THAT A SPECIFIED ROAD REMAINS UNCOMPLETED AFTER THE ROAD'S SPECIFIC COMPLETION DATE, AS DETERMINED BY THE NOTICE TO PROCEED PLUS 28 DAYS. DUE ACCOUNT WILL BE TAKEN OF ANY ADJUSTMENT OF THE SPECIFIC ROAD'S COMPLETION DATE GRANTED UNDER 108.06.

ITEM 614 - MAINTAINING TRAFFIC

IN CONJUNCTION WITH SECTION 109.09 OF THE SPECIFICATIONS, MAINTAINING TRAFFIC SHALL BE CONSIDERED INCIDENTAL TO THE CRACK SEAL QUANTITIES IN THIS CONTRACT. NO SEPARATE PAYMENT SHALL BE MADE FOR MAINTAINING TRAFFIC EXCEPT AS NOTED IN ITEM 614 – LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS.

ITEM 624 – MOBILIZATION, AS PER PLAN

PAYMENT FOR LUMP SUM ITEMS

IN CONJUNCTION WITH SECTION 109.09 OF THE SPECIFICATIONS, MOBILIZATION ITEMS SHALL BE PAYABLE TO THE CONTRACTOR AS SPECIFIED BELOW:

MOBILIZATION WILL BE PAID ONCE PER TASK ORDER AND THE CONTRACTOR WILL RECEIVE THE BID AMOUNT PER EACH. A TASK ORDER IS DEFINED AS A GROUP OF ONE OR MORE ROADS (TYPICALLY WITHIN A SINGLE MUNICIPALITY OR GEOGRAPHICAL AREA) FOR WHICH A SINGLE NOTICE TO PROCEED IS ISSUED. THE CONTRACTOR WILL ONLY BE PAID FOR MOBILIZATION ONCE PER APPROVED TASK ORDER ONCE IT IS INITIATED BY THE ENGINEER OR A REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS. NO MOBILIZATION WILL BE PAID FOR INITIAL ASSESSMENT OF PAVEMENT CONDITION AND COST ESTIMATE.

THE FOLLOWING ESTIMATED QUANTITY IS CARRIED TO THE PROPOSAL FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 624–	MOBILIZATION, AS PER PLAN	100 EACH
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INITIAL ASSESSMENT OF PAVEMENT CONDITION AND COST ESTIMATE, AS PER PLAN

PLAN SHEETS ARE NOT INCLUDED IN THE CONSTRUCTION DOCUMENTS AND THE ROADS TO BE CRACK SEALED HAVE NOT BEEN IDENTIFIED AT THIS TIME. AT MULTIPLE TIMES THROUGHOUT THE DURATION OF THIS CONTRACT THE CONTRACTOR WILL BE PROVIDED WITH A LIST OF ROADS LOCATED IN VARIOUS MUNICIPALITIES THROUGHOUT THE COUNTY. THE CONTRACTOR SHALL ASSESS THE CONDITION OF THE EXISTING PAVEMENT AND PREPARE AN ITEMIZED ESTIMATE FOR EACH ROAD BASED UPON EXISTING PAVEMENT CONDITION. PRIOR TO COMMENCEMENT OF THIS ITEM, THE CONTRACTOR AND THE ENGINEER SHALL AGREE UPON THE NUMBER OF LANE MILES INCLUDED IN EACH REQUEST.

THE COST OF ASSESSING AND ESTIMATING FOR EACH ROAD SHALL BE PAID FOR SHALL BE PAID FOR PER LANE MILE.

THE FOLLOWING ESTIMATED QUANTITY IS CARRIED TO THE PROPOSAL FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 642 –	TRAFFIC ITEM MISC., INITIAL ASSESSMENT OF PAVEMENT CONDITION AND COST ESTIMATE, AS PER PLAN	250 LANE MILES
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ITEM 423 – CRACK SEALING, TYPE III, AS PER PLAN

WHEN THE ABOVE ITEM IS CALLED FOR IN THE PROPOSAL, ALL APPLICABLE PROVISIONS OF ITEM 423, AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL APPLY UNLESS MODIFIED HEREIN.

423.08 OPENING TO TRAFFIC. IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATION AS SET FORTH IN THE CONSTRUCTION AND MATERIALS SPECIFICATION, THE CONTRACTOR SHALL WET ROLL THE CRACK AT LEAST ONCE, USING ANY ROLLER. ROLLING APPLICATION MUST BE PERFORMED SUCH THAT CRACK SEALANT WILL NOT BE PULLED UP BY ANY TRAFFIC.

423.10 BASIS OF PAYMENT. THE PAYMENT FOR THIS ITEM SHALL INCLUDE ALL ITEMS LISTED IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. ADDITIONALLY, WET ROLLING, AND MAINTENANCE OF TRAFFIC SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM AND WILL NOT BE PAID FOR SEPERATELY.

THE FOLLOWING ESTIMATED QUANTITY IS CARRIED TO THE PROPOSAL FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 423 – CRACK SEALING, TYPE III, AS PER PLAN	300,000 POUND
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CUYAHOGA COUNTY INSURANCE REQUIREMENTS

THE CONTRACTOR SHALL PROCURE, MAINTAIN AND PAY PREMIUMS FOR THE INSURANCE COVERAGE AND LIMITS OF LIABILITY INDICATED BELOW WITH RESPECT TO PRODUCTS, SERVICES, WORK AND/OR OPERATIONS PERFORMED IN CONNECTION WITH THIS CONTRACT.

1. MANDATORY INSURANCE REQUIREMENTS

THE FOLLOWING THREE ITEMS (WORKER'S COMPENSATION INSURANCE, COMMERCIAL GENERAL LIABILITY INSURANCE, AND BUSINESS AUTOMOBILE LIABILITY INSURANCE) ARE ALL MANDATORY REQUIREMENTS UNLESS OTHERWISE SPECIFIED.

(a) **WORKER'S COMPENSATION INSURANCE** AS REQUIRED BY THE STATE OF OHIO. SUCH INSURANCE REQUIREMENT MAY BE MET BY EITHER PURCHASING COVERAGE FROM THE OHIO STATE INSURANCE FUND OR BY MAINTAINING QUALIFIED SELF-INSURER STATUS AS GRANTED BY THE OHIO BUREAU OF WORKERS COMPENSATION (BWC).

FOR CONTRACTORS WITH EMPLOYEES WORKING OUTSIDE OF OHIO, WORKER'S COMPENSATION INSURANCE AS REQUIRED BY THE VARIOUS STATE AND FEDERAL LAWS AS APPLICABLE INCLUDING EMPLOYERS' LIABILITY COVERAGE WITH LIMITS OF LIABILITY NOT LESS THAN:

\$1,000,000 EACH ACCIDENT FOR BODILY INJURY BY ACCIDENT;
\$1,000,000 EACH EMPLOYEE FOR BODILY INJURY BY DISEASE;
\$1,000,000 POLICY LIMIT FOR BODILY INJURY BY DISEASE.

SUCH INSURANCE SHALL BE WRITTEN ON THE NATIONAL COUNCIL ON COMPENSATION INSURANCE (NCCI) FORM OR ITS EQUIVALENT.

(b) **COMMERCIAL GENERAL LIABILITY INSURANCE** WITH LIMITS OF LIABILITY NOT LESS THAN:

\$1,000,000 EACH OCCURRENCE BODILY INJURY & PROPERTY DAMAGE;
\$1,000,000 PERSONAL & ADVERTISING INJURY;
\$2,000,000 GENERAL AGGREGATE;

\$2,000,000 PRODUCTS/COMPLETED OPERATIONS AGGREGATE.

SUCH INSURANCE SHALL BE WRITTEN ON AN OCCURRENCE BASIS ON THE INSURANCE SERVICES OFFICE (ISO) FORM OR ITS EQUIVALENT.

(c) BUSINESS AUTOMOBILE LIABILITY INSURANCE COVERING ALL OWNED, NON-OWNED, HIRED, AND LEASED VEHICLES. SUCH INSURANCE SHALL PROVIDE A LIMIT OF NOT LESS THAN \$1,000,000 COMBINED SINGLE LIMIT (BODILY INJURY & PROPERTY DAMAGE) EACH ACCIDENT;

SUCH INSURANCE SHALL BE WRITTEN ON AN OCCURRENCE BASIS ON THE INSURANCE SERVICES OFFICE (ISO) FORM OR ITS EQUIVALENT.

NOTE: IF THE SERVICES REQUIRED UNDER THIS CONTRACT INCLUDE THE REPAIRING, SERVICING, PARKING OR STORING OF VEHICLES, THEN THE FOLLOWING INSURANCE COVERAGE SHALL ALSO BE REQUIRED:

GARAGEKEEPERS LEGAL LIABILITY INSURANCE WITH A LIMIT OF NOT LESS THAN \$1,000,000 COMBINED SINGLE LIMIT (BODILY INJURY & PROPERTY DAMAGE) EACH ACCIDENT.

2.

ADDITIONAL INSURANCE COVERAGE

EACH OF THE FOLLOWING EIGHT ITEMS MAY BE REQUIRED "IN ADDITION TO" THE MANDATORY COUNTY INSURANCE REQUIREMENTS SET FORTH ABOVE. ALTHOUGH THESE COVERAGES MAY NOT BE LISTED AS MANDATORY COUNTY INSURANCE REQUIREMENTS, IT IS AT THE COUNTY'S DISCRETION TO MANDATE THESE COVERAGES WHERE DEEMED NECESSARY BASED ON THE NATURE OF THE CONTRACTED SERVICES/PRODUCTS.

(a) UMBRELLA/EXCESS LIABILITY INSURANCE WITH LIMITS OF LIABILITY NOT LESS THAN:

\$5,000,000 EACH OCCURRENCE
\$5,000,000 GENERAL AGGREGATE
\$5,000,000 PRODUCTS/COMPLETED OPERATIONS AGGREGATE

SUCH INSURANCE SHALL BE WRITTEN ON AN OCCURRENCE BASIS AND SHALL SIT IN EXCESS OF THE LIMITS AND TERMS SET FORTH IN THE PRECEDING ITEMS (A)-(C).

(b) ALL RISK EQUIPMENT INSURANCE COVERING ALL RISK OF PHYSICAL DAMAGE TO EQUIPMENT PROVIDED FOR USE BY CONTRACTOR.

(c) PROFESSIONAL LIABILITY INSURANCE/ERRORS & OMISSIONS LIABILITY INSURANCE PROVIDING COVERAGE FOR CLAIMS ARISING OUT OF THE PROVISION OF DESIGN, ARCHITECTURAL, ENGINEERING AND/OR OTHER PROFESSIONAL SERVICES WITH A LIMIT OF LIABILITY NOT LESS THAN:

\$5,000,000 PER CLAIM;
\$5,000,000 AGGREGATE.

SUCH INSURANCE MAY BE WRITTEN ON EITHER AN OCCURRENCE OR CLAIMS-MADE BASIS. HOWEVER, IF WRITTEN ON A CLAIMS-MADE BASIS, THE CLAIMS-MADE RETROACTIVE DATE ON THE POLICY SHALL BE PRIOR TO THE COMMENCEMENT OF ANY DESIGN, ARCHITECTURAL, ENGINEERING OR OTHER PROFESSIONAL ACTIVITY RELATED TO THIS CONTRACT.

(d) POLLUTION LEGAL LIABILITY INSURANCE (INCLUDING CONTRACTORS POLLUTION LIABILITY INSURANCE, IF APPLICABLE) WITH A LIMIT OF LIABILITY NOT LESS THAN:

\$1,000,000 PER CLAIM;
\$1,000,000 AGGREGATE.

SUCH INSURANCE MAY BE WRITTEN ON EITHER AN OCCURRENCE OR CLAIMS-MADE BASIS, HOWEVER, IF WRITTEN ON A CLAIMS MADE-BASIS, THE CLAIMS-MADE RETROACTIVE DATE ON THE POLICY SHALL BE PRIOR TO THE COMMENCEMENT OF ANY WORK RELATED TO THIS CONTRACT.

(e) LIQUOR LIABILITY INSURANCE WITH A LIMIT OF LIABILITY NOT LESS THAN:

\$1,000,000 PER OCCURRENCE;
\$1,000,000 AGGREGATE.

(f) AVIATION LIABILITY INSURANCE COVERING THE USE AND MAINTENANCE OF ALL OWNED AND NON-OWNED AIRCRAFT OF ANY TYPE WITH A LIMIT OF LIABILITY NOT LESS THAN:

\$10,000,000 PER OCCURRENCE;
\$10,000,000 AGGREGATE.

(g) **MARINE LIABILITY INSURANCE** COVERING THE USE AND MAINTENANCE OF ALL OWNED AND NON-OWNED WATERCRAFT WITH A LIMIT OF LIABILITY NOT LESS THAN:

\$5,000,000 PER OCCURRENCE;
\$5,000,000 AGGREGATE.

(h) **BUILDERS RISK INSURANCE** ON AN ALL RISKS PROPERTY COVERAGE FORM COVERING DAMAGE TO BUILDINGS OR OTHER STRUCTURES WHILE UNDER CONSTRUCTION OR RENOVATION INCLUDING MATERIALS AND FIXTURES WHETHER OR NOT YET INCORPORATED INTO THE BUILDINGS OR OTHER STRUCTURES.

INSURANCE COVERAGE TERMS AND CONDITIONS

1. THE INSURANCE POLICIES OF THE CONTRACTOR REQUIRED FOR THIS CONTRACT, WITH THE EXCEPTION OF THE ALL RISK EQUIPMENT INSURANCE AND ERRORS & OMISSIONS INSURANCE, SHALL EACH NAME THE "COUNTY OF CUYAHOGA, OHIO AND ITS EMPLOYEES" AS AN ADDITIONAL INSURED AND SHALL CONTAIN THE FOLLOWING PROVISIONS:

(i) THIRTY (30) DAYS PRIOR NOTICE OF CANCELLATION OR MATERIAL CHANGE;

(ii) A WAIVER OF SUBROGATION WHEREIN THE INSURER(S) WAIVES ALL RIGHTS OF RECOVERY AGAINST THE COUNTY.

2. THE INSURANCE REQUIRED FOR THIS CONTRACT SHALL BE PROVIDED BY INSURANCE CARRIER(S) LICENSED TO TRANSACT BUSINESS AND WRITE INSURANCE IN THE STATE(S) WHERE OPERATIONS ARE PERFORMED AND SHALL CARRY A MINIMUM A.M. BEST'S RATING OF A VII OR ABOVE.

3. THESE INSURANCE PROVISIONS SHALL NOT AFFECT OR LIMIT THE LIABILITY OF THE CONTRACTOR STATED ELSEWHERE IN THIS CONTRACT OR AS PROVIDED BY LAW.

4. THE CONTRACTOR SHALL REQUIRE ANY AND ALL OF ITS SUBCONTRACTORS TO PROCURE, MAINTAIN, AND PAY PREMIUMS FOR THE INSURANCE COVERAGES AND LIMITS OF LIABILITY OUTLINED ABOVE WITH RESPECT TO PRODUCTS, SERVICES, WORK AND/OR OPERATIONS PERFORMED IN CONNECTION WITH THIS CONTRACT.

5. THE COUNTY RESERVES THE RIGHT TO REQUIRE INSURANCE COVERAGES IN VARIOUS AMOUNTS OR TO MODIFY OR WAIVE INSURANCE REQUIREMENTS ON A CASE-BY-CASE BASIS WHENEVER IT IS DETERMINED TO BE IN THE BEST INTEREST OF THE COUNTY.

6. IF THE BID/PROPOSAL/RFQ SPECIFIES THE NEED FOR HIGHER LIMITS OF LIABILITY FOR ANY APPLICABLE INSURANCE PROVISION, THE BID/PROPOSAL/RFQ SPECIFICATIONS SHALL GOVERN.

7. THE CONTRACTOR SHALL FURNISH A WORKER'S COMPENSATION CERTIFICATE AND CERTIFICATE OF INSURANCE EVIDENCING THE INSURANCE COVERAGES REQUIRED HEREIN ARE IN FULL FORCE AND EFFECT. ACCEPTANCE OF A NON-CONFORMING CERTIFICATE OF INSURANCE BY THE COUNTY SHALL NOT CONSTITUTE A WAIVER OF ANY RIGHTS OF THE PARTIES UNDER THIS CONTRACT.

Cuyahoga County
Department of Public Works
Maintenance of Traffic Notes

PLAN ENDORSEMENT

THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING OF ANY HIGHWAYS TO TRAFFIC AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THE NOTES AND ESTIMATES.

ITEM 614 - MAINTAINING TRAFFIC (Part Width-Flaggers)

THROUGH TRAFFIC SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH SECTION 614 AND THE DETAILS AND NOTES ON STANDARD CONSTRUCTION DRAWINGS MT-97.10 AND MT-97.11.

THE LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE KEPT TO A MINIMUM CONSISTENT WITH THE SPECIFICATION REQUIREMENTS FOR PROTECTION OF COMPLETED CRACK SEAL, AND SHALL BE AT THE APPROVAL OF THE ENGINEER.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES.

ITEM 614 - MAINTAINING TRAFFIC

THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTTING PROPERTY. THE CONTRACTOR SHALL MAINTAIN ADEQUATE PEDESTRIAN WALKS AT ALL INTERSECTIONS.

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL CHANNELS BY PLASTIC DRUMS, (FLASHING ARROW PANELS COMPLYING WITH SS-821 AND SS-921) AND TRAFFIC SIGNS PER MT-97.10 AND MT-97.11.

ALL CONSTRUCTION TRAFFIC CONTROL DEVICES USED FOR THIS PROJECT SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR, EXCEPT AS NOTED BELOW.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS, SUCH AS TYPE III BARRICADES, LIGHTING, FLAGGERS, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN ITEM 614, MAINTAINING TRAFFIC, SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED, IN COMPLIANCE WITH THE MANUAL, AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF RELOCATION, IF REQUIRED, SHALL BE INCLUDED IN THE COST OF ITEM 423 CRACK SEALING, TYPE III, AS PER PLAN.

THE LENGTH AND DURATION OF LANE CLOSURES AND/OR TRAFFIC RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. THE INTENT IS TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THERE SHALL BE NO SEPARATE PAYMENT FOR ITEM 614 MAINTAINING TRAFFIC. ALL COSTS ASSOCIATED WITH ITEM 614 MAINTAINING TRAFFIC SHALL BE CONSIDERED INCIDENTAL TO ITEM 423 CRACK SEALING, TYPE III, AS PER PLAN.

HOLIDAY TRAFFIC LIMITATION

NO WORK SHALL BE PERFORMED, AND ALL EXISTING LANES WHICH ARE NOT INSIDE A DESIGNATED WORK ZONE SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

NEW YEARS DAY	(JANUARY 1)
MEMORIAL DAY	(LAST MONDAY IN MAY)
INDEPENDENCE DAY	(JULY 4)
LABOR DAY	(FIRST MONDAY IN SEPTEMBER)
THANKSGIVING DAY	(FOURTH THURSDAY IN NOVEMBER)
CHRISTMAS DAY	(DECEMBER 25)
OTHER HOLIDAY OR EVENT BASED ON MUNICIPALITY POLICY	

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07.

ESTIMATED QUANTITIES FOR MAINTAINING TRAFFIC

ALL ITEMS RELATED TO MAINTAINING TRAFFIC SHALL BE CONSIDERED INCIDENTAL TO THE CRACK SEAL ITEMS.

NOTIFICATION

THE CONTRACTOR SHALL NOTIFY IN WRITING THE APPLICABLE AGENCIES FROM THE FOLLOWING LIST AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST 72 HOURS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING ANY STREET TO TRAFFIC:

THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS - PUBLIC INFORMATION OFFICER
THE OHIO DEPARTMENT OF TRANSPORTATION - DISTRICT 12 - PUBLIC INFORMATION OFFICE

THE GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
LAKETRAN

THE CUYAHOGA COUNTY BOARD OF MENTAL RETARDATION
THE UNITED STATES POSTAL SERVICE

LOCAL MUNICIPAL BOARD OF EDUCATION
LOCAL MUNICIPAL POLICE, FIRE AND SERVICE DEPARTMENTS

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS MUST BE APPROVED BY THE ENGINEER. ANY USE OTHER THAN THE USES APPROVED BY THE ENGINEER AND SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE PROPOSAL AND IS FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 100 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

SIDE STREET CLOSURE LIMITATION

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON ALL STREETS:

INSTALLATION OF CRACK SEAL

THE CONTRACTOR MAY REDUCE THE NUMBER OF THROUGH TRAFFIC LANES BY 50%, AS DIRECTED BY THE ENGINEER, IN ORDER TO PLACE CRACK SEAL MATERIAL. HE SHALL CHECK WITH LOCAL REGULATIONS REGARDING TIME LIMIT FOR THE AFOREMENTIONED CLOSURE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

SECTION 300
SUPPLEMENTAL SPECIFICATIONS

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION 800
REVISIONS TO THE 2010 CONSTRUCTION & MATERIAL SPECIFICATIONS
DATED 4-19-2013

101.03

On pages 6-10, **Revise** the definitions as follows:

Claims. Disputes that are not settled through Steps 1 and 2 of the Dispute Resolution and Administrative Claim Process. The Dispute becomes a Claim when the Contractor submits a Notice of Intent to File a Claim.

Construction Limits. These limits must encompass all Work. This includes removals, room for construction equipment to complete work, site access, etc.

Disputes. Disagreements, matters in question and differences of opinion between the Department's personnel and the Contractor.

Partnering. A collaborative process for project cooperation and communication meant to achieve effective and efficient contract performance and completion of the Project within budget, on schedule, safely and with requisite quality in accordance with the contract.

Project Limits. Project limits are points on the mainline centerline of construction where the proposed improvement, as described in the project description on the Title Sheet (excluding incidental construction), begins and ends

Work Limits. Work Limits are the extreme limits of the contractor's responsibility on a project, including all temporary and incidental construction, with the exception of work zone traffic control devices required for maintenance of traffic.

104.05

On pages 19-24, **Delete** the entire subsection **104.05 Partnering and Dispute Resolution**. (See new section **108.02 Partnering**)

105.16

On page 29, **Replace** the first sentence of the third paragraph with the following:

Perform all engineering, including any field investigation, necessary to ensure long term stability of all side slopes and foundations of all borrow and waste areas.

105.19 Value Engineering Change Proposals.

On page 31 and 32, **Replace** the entire section with the following:

The Department will Partner with the Contractor by considering the Contractor's submission of a Value Engineering Change Proposal (VECP) which will reduce construction costs and possibly time on projects that do not contain Design Build provisions or incentive provisions based on time.

The purpose of this provision is to encourage the use of the ingenuity and expertise of the Contractor in arriving at alternate plans, specifications or other requirements of the contract. Savings in construction costs and possibly time will be shared equally between the Contractor and the Department. The Contractor's costs for development, design and implementation of the VECP are not eligible for reimbursement. The VECP must not impair any of the essential functions and characteristics of the project such as service life, reliability, economy of operation, ease of maintenance, safety and necessary standardized features. The submission of the value engineering change proposal shall conform with Supplement 1113. Acceptance of a VECP is at the sole discretion of the Director.

The Department will not approve VECPs with any of the following characteristics:

- A. Consist only of non-performing items of work contained in the plans.
- B. Include plan errors identified by the Contractor as part of the cost reduction.
- C. The VECP designer/consultant for the Contractor is also the designer of record for ODOT.
- D. Changes to any special architectural or aesthetic treatments.
- E. Requires concrete beams to be installed with less than 17' vertical clearance over a state highway.
- F. Changes the type or buildup of permanent pavement.
- G. Compromises controlling design criteria or would require a design exception as discussed in Volume I, Section 100, of the Location and Design Manual.
- H. Proposes a time savings for any project which has an Incentive / Disincentive clause, which was awarded based on A+B Bidding or Lane Rental.

Engineering and drawing development and implementation costs for the VECP are not recoverable.

The Contractor shall have no claim against the Department for any costs or delays due to the Department's review or rejection of the initial VECP.

If the Department already is considering revisions to the contract which are subsequently proposed as a VECP, the Department may reject the Contractor's initial VECP or portions thereof and may proceed with such revisions without any obligations to the Contractor.

107.10

On page 40, **Replace** the first paragraph with the following:

107.10 Protection and Restoration of Property.

Except for locations utilized specifically for parking of equipment between workdays for maintenance type projects, all areas proposed to be utilized by the Contractor outside the project construction limits shall be reviewed by environmental contractor(s) that are prequalified by the Department for each environmental resource. This exception applies to projects with "maintenance" in the project description. Have the consultant(s) certify that the proposed site to be utilized for the contractor will not impact:

107.13

On page 44, **Replace** the first paragraph of with the following:

Reporting, Investigating, and Resolving Motorist Damage Claims.

When a motorist reports damage to its vehicle either verbally or in writing to the Contractor, the Contractor shall within 3 days make and file a written report to the District's construction office. In the event that the Department directly receives the motorist's claim, the Department shall within 3 days send the claim report to the Contractor. In the event the Contractor has not agreed to resolve the motorist claim, the District's construction office shall forward the report to the Department's Court of Claims Coordinator who, as a co-insured party, may then contact the Contractor's insurance company and request that the insurance company investigate and resolve the claim. If the Contractor or their insurance company does not resolve the claim in a timely manner, the Department may advise the motorist of the option of pursuing the claim in the Ohio Court of Claims.

On page 44, **Replace** the third paragraph with the following:

If the lawsuit claim amount is \$2,500 or less and the Court of Claims Coordinator determines that the Contractor is responsible for the claimed damages then the Department's Court of Claims Coordinator may, after notifying the Contractor, determine that it would be in the best interest of the Department to settle the claim. Any settlement amount including court costs may be assessed to the Contractor and deducted from the project. The Engineer will notify the Contractor prior to executing the deduction. The Contractor or the Contractor's insurance company may within 14 days appeal the assessment decision of the Court of Claims Coordinator to the District Construction Engineer. The decision of the DCE will be made within 14 days and will be administratively final.

107.19

On page 46, **Replace** the entire subsection with the following:

107.19 Environmental Protection. Comply with all Federal, State, and local laws and regulations controlling pollution of the environment. Avoid polluting streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, sediments, or other harmful materials, and avoid polluting the atmosphere with particulate and gaseous matter.

By execution of this contract, the Contractor, will be deemed to have stipulated as follows:

A. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

B. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

C. That the firm shall promptly notify the Department of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

D. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

Fording of streams is prohibited. Causeways for stream and river crossings or for Work below a bridge are permitted provided:

A. The causeway complies with the requirements of the 404 Permit the Department obtained for the Project.

B. The Contractor obtains a 404 Permit from the U.S. Army Corps of Engineers if the Department has not obtained such a permit. Obtain the 404 Permit prior to beginning construction of the causeway. The Department does not guarantee that the Contractor will be able to obtain a 404 Permit.

Comply with all current provisions of the Ohio Water Pollution Control Act, (OWPCA), (ORC Chapter 6111). The Department will obtain a storm water permit under the OWPCA provisions when the plan work acreage requires a permit. Apply for a permit to cover operations outside the Project limits shown on the plans as required by the OWPCA provisions. When the Department has not applied for a permit on the Project and a permit is required under the provisions of the OWPCA because of the total area of the Contractor's work, apply for, obtain, and comply with the required permit for both the Work within Project limits and the Contractor's work.

The Department has obtained the required permits from the U.S. Army Corps of Engineers and Ohio EPA for Work in the "Waters of the United States" and isolated wetlands under ORC Chapter 6111. Comply with the requirements of these permits.

When equipment is working next to a stream, lake, pond, or reservoir, appropriate spill response equipment is required. Do not stockpile fine material next to a stream, lake, pond, or reservoir.

Take precautions to avoid demolition debris and discharges associated with the excavation and hauling of material from entering the stream. Remove any material that does fall into the stream as soon as possible.

When excavating in or adjacent to streams, separate such areas from the main stream by a dike or barrier to keep sediment from entering the stream. Take care during the construction and removal of such barriers to minimize sediment entering the stream.

Contain, collect, characterize and legally dispose of all waste water and sludge generated during the work. Do not mix waste water with storm water. Do not discharge any waste water without the appropriate regulatory permits. Manage waste water and sludge in accordance with ORC Chapter 6111 and all other laws, regulations, permits and local ordinances relating to this waste. Waste water management is incidental to the Work unless otherwise specified in the contract.

Control the fugitive dust generated by the Work according to OAC-3745-17-07(B), OAC-3745-17-08, OAC-3745-15-07, and OAC-3745-17-03 and local ordinances and regulations. Prior to the initiation of abrasive coating removal, pavement cutting or any other construction operation that generates dust, demonstrate to the Engineer that construction related dust will be controlled with appropriate Reasonable Available Control Measures (RACM) as described in OEPA Engineering Guide #57 (<http://epa.ohio.gov/dapc/engineer/eguides.aspx>).

In addition, use dust control measures when fugitive dust creates unsafe conditions as determined by the Engineer. Perform this work without additional compensation except for Item 616.

~~Perform open burning according to 105.16.~~

107.21

On page 48, **Replace** the first paragraph with:

In accordance with ORC 4113.61, make payment to each subcontractor and supplier within 10 Calendar Days after receipt of payment from the Department for Work performed or materials delivered or incorporated into the Project, provided that the pay estimate prepared by the Engineer includes Work performed or materials delivered or incorporated into the public improvement by the subcontractor or supplier. Promptly release any retainage held, as set forth in any subcontractor or supplier agreement, within 10 days of department's acceptance of the work involving the subcontractor or supplier from whom retainage has been held. For the sole purpose of establishing a time frame for the release of the subcontractor or supplier retainage, acceptance of subcontractor or supplier work will occur when the subcontractor or supplier has complied with the requirements of 109.12.A, B and C.

108.02

On pages 49-51, **Replace** the entire subsection **108.02** with the following:

108.02 Partnering. It is the intent of the Department to partner every project. The purpose of Partnering is to develop a proactive effort and spirit of trust, respect, and cooperation among all stakeholders in a project. Partnering does not affect the terms and conditions of the Contract. The Partnering process in this section is Self-facilitated Partnering performed by the Project personnel. Costs associated with the Self-facilitated Partnering process are incidental to the Contract.

A. Preconstruction Meeting. Meet with the Engineer for a Preconstruction Meeting before beginning the Work. At or before the meeting, submit the initial progress schedule to the DCE. Prepare the schedule according to 108.03.

Furnish a list of proposed subcontractors and material suppliers at or before the Preconstruction Meeting. If the Contractor fails to provide the required submissions at or before the Preconstruction Meeting, the Engineer may order the meeting suspended until they are furnished. Do not begin the Work until the meeting is reconvened and concluded or the Engineer gives specific written permission to proceed.

B. Initial Partnering Session. In conjunction with the Engineer, determine whether the Initial Partnering Session will be conducted as part of the Preconstruction Meeting or as a separate meeting. Partnering shall have its own agenda with specific time set aside to develop the necessary partnering protocols. Develop the Partnering agenda with the Engineer.

Identify and invite all stakeholders necessary to make the Project successful including utility companies, other transportation entities (i.e., railroads), community leaders, all Project participants including subcontractors.

During the Initial Partnering Session, consider developing Partnering teams consisting of Department and Contractor senior personnel and Project personnel. Consider the following items for discussion:

1. Identifying and developing a consensus on project goals consistent with the contractual obligations, including specific goals concerning safety, quality, schedule, and budget.

2. Deciding how the teams will measure progress on Project goals.

3. Identifying any potential risks to the Project's success, mitigation strategies and an implementation plan for the appropriate strategies.

4. Defining key issues, project concerns, joint expectations, roles of key partnership leaders, lines of decision making authority, and share relevant information to help determine the scope of the Partnering efforts.

5. Identifying any opportunities for project enhancement, enhancement strategies and a specific action plan for implementing strategies.

6. Developing a communication protocol to enhance communication on the Project7. Developing an issue identification and resolution process that identifies and attempts to resolve issues at the level closest to the work. The issue identification and resolution process will develop all the necessary steps for issue elevation including Notice and Mitigation defined in 108.02.F and the Dispute Resolution and Administrative Claims Process defined in 108.02.G.

C. Progress Meetings. Hold monthly Progress Meetings unless the frequency is otherwise determined at the Preconstruction Meeting. Coordinate with the Engineer to determine agenda topics prior to each meeting. The purpose of Progress Meetings is to keep open communication between the Contractor and the Engineer. The senior personnel team is encouraged to participate in all Progress Meetings. Include Partnering as an agenda item at the Progress Meetings.

D. Post-milestone Meeting. In conjunction with the Engineer, determine whether the Post-milestone Meeting will be conducted as part of the Progress Meeting or as a separate meeting for multi-year, multi-phase, or projects with critical items of work or milestone dates. Consider discussing and updating items from the Initial Partnering Session in addition to items specific to the Project. All stakeholders should be invited to attend.

E. Partnering Monitoring. Monitor the progress of the Partnering relationship based on the goals decided during the Initial Partnering Session. On-line surveys of Project participants may be used to monitor progress on Project goals and help identify issues as they arise. The on-line surveys are consistent with the Department's Partnering Project Rating Form which is located on the Division of Construction Management's Partnering website:

<http://www.dot.state.oh.us/Divisions/ConstructionMgt/Pages/Partnering.aspx>

F. Mitigation and Notice. Mitigation of any issue, whether caused by the Department, Contractor, third-party or an intervening event, is a shared contract and legal requirement. Mitigation efforts include, but are not limited to, re-sequencing work activities, acceleration, and substitution of materials. The Contractor and Engineer must explore and discuss potential mitigation efforts in a timely manner.

1. Contractor Initial Oral Notification. Provide immediate oral notification to the Engineer upon discovering a circumstance that may require a revision to the Contract Documents or may result in a dispute. Upon notification, the Engineer will attempt to resolve the identified issue as quickly as possible.

2. Contractor Written Early Notice. If the Engineer has not resolved the identified issue within 2 working days after receipt of oral notification, provide written notice to the Engineer of any

circumstance that may require a revision to the Contract Documents or may result in a dispute. This early notice must be given by the end of the second working day following the occurrence of the circumstance.

The Engineer and Contractor shall maintain records of labor, equipment, and materials used on the disputed work or made necessary by the circumstance. Such records will begin when early notice is received by the Engineer. Tracking such information is not an acknowledgement that the Department accepts responsibility for payment for this disputed work.

If an issue is not resolved through the initial mitigation efforts, either abandon or escalate to the Dispute and Administrative Claims Process defined in 108.02.G.

G. Dispute Resolution and Administrative Claims Process. Whenever an issue is elevated to a dispute, the parties shall exhaust the Department's Dispute Resolution and Administrative Claim process as set forth below prior to seeking additional compensation or contract time by filing an action in the Ohio Court of Claims. The following procedures do not compromise the Contractor's right to seek relief in the Ohio Court of Claims.

All parties to the dispute must adhere to the Dispute Resolution and Administrative Claim process. Do not contact Department personnel who are to be involved in a Step 2 or Step 3 review until a decision has been issued by the previous tier. Department personnel involved in Step 2 or Step 3 reviews will not consider a dispute until the previous tier has properly reviewed the dispute and issued a decision.

Failure to meet any of the timeframes outlined below or to request an extension may terminate further review of the dispute and may serve as a waiver of the Contractor's right to file a claim.

Disputes and claims by subcontractors and suppliers may be pursued by the Contractor on behalf of subcontractors or suppliers. Disputes and claims by subcontractors and suppliers against the Department but not supported by the Contractor will not be reviewed by the Department. Disputes and claims of subcontractors and suppliers against the Contractor will not be reviewed by the Department.

Continue with all Work, including that which is in dispute. The Department will continue to pay for Work.

The Department will not make the adjustments allowed by 104.02.B, 104.02.C, and 104.02.D if the Contractor did not give notice as specified in 108.02.F.1 and 108.02.F.2. This provision does not apply to adjustments provided in Table 104.02-2.

1. Step 1 (On-Site Determination). The Engineer will meet with the Contractor's superintendent within two (2) working days of receipt of the Contractor Written Early Notice set forth in 108.02.F.2. They will review all pertinent information and contract provisions and negotiate in an effort to reach a resolution according to the Contract Documents. The Engineer will issue a written decision of Step 1 within fourteen (14) calendar days of the meeting. If the dispute is not resolved either abandon or escalate the dispute to Step 2.

2. Step 2 (District Dispute Resolution Committee). Each District will establish a District Dispute Resolution Committee (DDRC) which will be responsible for hearing and deciding disputes at the Step 2 level. The DDRC will consist of the District Deputy Director, District Construction Engineer and the Planning and Engineering Administrator or designees (other than the project personnel involved).

Within seven (7) calendar days of receipt of the Step 1 decision, submit a written request for a Step 2 meeting to the District Construction Engineer (DCE). The DCE will assign the dispute a dispute number. Within fourteen (14) calendar days of receipt of the request for a Step 2 meeting, submit the Dispute Documentation as follows:

- a) Submit three (3) complete copies of the documentation of the dispute to the DCE.
- b) Identify the Dispute on a cover page by county, project number, Contractor name, subcontractor or supplier if involved in the dispute, and dispute number.
- c) Clearly identify each item for which additional compensation and/or time is requested.
- d) Provide a detailed narrative of the disputed work or project circumstance at issue. Include the dates of the disputed work and the date of early notice.
- e) Reference the applicable provisions of the plans, specifications, proposal, or other contract documents in dispute. Include copies of the cited provisions in the Dispute Documentation.
- f) Include the dollar amount of additional compensation and length of contract time extension requested.
- g) Include supporting documents for the requested compensation stated in number six (6) above.
- h) Provide a detailed schedule analysis for any dispute involving additional contract time, actual or constructive acceleration, or delay damages. At a minimum, this schedule analysis must include the Schedule Update immediately preceding the occurrence of the circumstance alleged to have caused delay and must comply with accepted industry practices. Failure to submit the required schedule analysis will result in the denial of that portion of the Contractor's request.
- i) Include copies of relevant correspondence and other pertinent documents.

Within fourteen (14) calendar days of receipt of the Contractor's Dispute Documentation, the DDRC will conduct the Step 2 meeting with Contractor personnel who are authorized to resolve the dispute. The DDRC will issue a written decision of Step 2 within fourteen (14) calendar days of the meeting. If the dispute is not resolved, either abandon or escalate the dispute to Step 3.

3. Step 3 (Director's Claims Board Hearing or Alternative Dispute Resolution). Submit a written Notice of Intent to File a Claim to the Dispute Resolution Coordinator in the Division of Construction Management within fourteen (14) calendar days of receipt of the Step 2 decision. Include the Contractor's request for either: 1.) a Director's Claim Board hearing on the claim or 2.) an acceptable Alternative Dispute Resolution (ADR) practice.

The dispute becomes a claim when the Dispute Resolution Coordinator receives the Notice of Intent to File a Claim.

a) Director's Claims Board Hearing. The Director's Claims Board (the Board) will consist of the Deputy Director of the Division of Construction Management, Deputy Director of Engineering and a District Construction Engineer from a district not involved in the claim or designees. A representative from the Division of Chief Legal Counsel and Equal Opportunity may be present to observe the hearing. The Director or designee will be responsible for deciding claims.

Submit six (6) complete copies of the Claim Documentation to the Dispute Resolution Coordinator within thirty (30) calendar days of receipt of the Notice of Intent to File a Claim. This timeframe may be extended upon mutual agreement of the parties and with approval of the Dispute Resolution Coordinator.

In addition to the documentation submitted at Step 2:

- i. Enhance the narrative to include sufficient description and information to enable understanding by a third party who has no knowledge of the dispute or familiarity with the project.

- ii. Certify the claim in writing and under oath using the following certification:

I, (Name and Title of an Officer of the Contractor) certify that this claim is made in good faith, that all supporting data is accurate and complete to the best of my knowledge and belief, and that the claim amount accurately reflects the contract amendment for which (Contractor Company name) believes the Department is liable.

Sign and date this claim certification and have the signature notarized pursuant to the laws of the State of Ohio. The date the Dispute Resolution Coordinator receives the certified claim documentation is the date of the Department's Receipt of the Certified Claim for the purpose of the calculation of interest as defined in 108.02.G.4. The Dispute Resolution Coordinator will forward one (1) complete copy of this documentation to the District.

Within thirty (30) calendar days of the District's receipt of the Contractor's Claim Documentation, the District will submit six (6) complete copies of its Claim Documentation to the Dispute Resolution Coordinator. In the event that the Contractor is granted a time extension for the submission of its Claim Documentation, the District will be granted an equal time extension for submission of its Claim Documentation. At a minimum, the District's Claim Documentation should include:

- i. An overview of the project.
- ii. A narrative of the disputed work or project circumstance at issue with sufficient description and information to enable understanding by a third party who has no knowledge of the dispute or familiarity with the project.
- iii. The dates of the disputed work and the date of early notice.
- iv. References to the applicable provisions of the plans, specifications, proposal, or other contract documents. Copies of the cited provisions shall be included in the claim document.
- v. Response to each argument set forth by the Contractor.
- vi. Any counterclaims, accompanied by supporting documentation, the District wishes to assert.
- vii. Copies of relevant correspondence and other pertinent documents.

Within fourteen (14) calendar days of receipt of the District's Claim Documentation, the Dispute Resolution Coordinator will forward one (1) complete copy to the Contractor and will schedule a hearing on the dispute.

Once a hearing date has been established, both the Contractor and District shall provide the Dispute Resolution Coordinator with a list of names of persons who may be presenting information at the hearing. Unless otherwise permitted by the Board, the exchange of documentation and all disclosures specified in this step of the process shall be completed at least fourteen (14) calendar days prior to the hearing.

Upon request or at the Board's discretion, the Board may delay the hearing one (1) time to allow more time for review and requests for more documentation.

The Board will hear the entire claim on behalf of the Director. The Board may have technical advisors at the hearing for assistance in reviewing the claim. The Contractor and District will each be allowed adequate time to present their respective positions before the Board. The Contractor and District will also each be allowed adequate time for one (1) rebuttal limited to the scope of the opposing party's presentation. The Contractor's position will be presented by a Contractor's representative who is thoroughly knowledgeable of the claim. Similarly, the District's position will be presented by a District representative who is thoroughly knowledgeable of the claim. Each party may have others assist in the presentation.

The Board may, on its own initiative, request information of the Contractor in addition to that submitted for the hearing. If the Contractor fails to reasonably comply with such request, the Board may render its decision without such information.

Upon completion of the hearing and consideration of any additional information submitted upon request, the Board will submit a written recommendation on the disposition of the claim to the Director. The Director or designee will ratify, modify, or reject the recommendation of the Board and render a decision within sixty (60) calendar days of the hearing. Within thirty (30) calendar days of receipt of the Board's decision, either accept or reject the decision in writing. In the event the Contractor fails to do so, the Board may revoke any offers of settlement contained in the decision.

The decision of the Director is the final step of the Department's Dispute Resolution Process and may not be appealed within the Department. The Director is not bound by any offers of settlement or findings of entitlement made during Steps 1 and 2 of the Dispute Resolution Process.

b) **Alternative Dispute Resolution (ADR).** In lieu of the Board hearing, the Contractor may opt to proceed through an Alternative Dispute Resolution (ADR) Process. The Department will then choose either binding arbitration as defined by ORC 5525.23 or mediation in the manner in which those methods are practiced by the Department and allowed by law.

The Dispute Resolution Coordinator will coordinate the agreement of the parties to the ADR method, and the selection of a neutral third party or technical expert. The fees of the neutral third party or technical expert will be shared equally between the Department and the Contractor. The Dispute Resolution Coordinator will obtain a written agreement, signed by both parties, that establishes the ADR process. The neutral third party or technical expert will have complete control of the claim upon execution of the ADR agreement.

4. **Interest on Claims.** The Department will pay interest in accordance with ORC Section 5703.47 on any amount found due on a claim which is not paid within 30 days of the Dispute Resolution Coordinator's Receipt of the Certified Claim.

H. Post Construction Meeting. The District will conduct a Post Construction Meeting with the Contractor prior to the project finalization. The District will invite the design agency and any other stakeholders deem necessary including utility companies, other transportation entities (i.e. railroads), community leaders, all Project participants including subcontractors performing critical work to attend this meeting.

Consider the following items for discussion:

- Project Safety.
- How were the goals evaluated or measured?

- How were foremen/ workers involved in the Partnering process?
- How were the subcontractors involved in the Partnering process?
- How were relationships with key stakeholders managed?
- Teambuilding activities or unique motivational activities.

I. Partnering Close-Out Survey. Complete the final Partnering evaluation to get participants' feedback and improve the Partnering process. The Partnering Close-Out Survey is located on the Division of Construction Management's Partnering website:

<http://www.dot.state.oh.us/Divisions/ConstructionMgt/Pages/Partnering.aspx>

108.03

On page 51, Add the following section to **108.03 Prosecution and Progress**:

A. Progress Schedule.

1. General. Furnish a bar chart progress schedule to the District Construction Engineer for review at or before the Preconstruction Meeting. The Engineer will review the schedule and within 14 calendar days of receipt, will either accept the schedule or provide the Contractor with comments. Acceptance of the schedule does not revise the Contract Documents. Provide clarification or any needed additional information within 10 days of a written request by the Engineer. The Department will withhold Estimates until the Engineer accepts the schedule. The Engineer will not measure or pay for the preparation of the schedule and schedule updates directly, but the cost of preparing and updating the schedule is incidental to all Contract Items.

a. Include the following Administrative Identifier Information:

- (1) Project Number
- (2) County
- (3) Route Number
- (4) FHWA Number
- (5) PID Number
- (6) Contract Number
- (7) Date of Contract
- (8) Completion Date
- (9) Contractor's Name
- (10) Contractor's Dated Signature
- (11) ODOT's Dated Acceptance Signature

Provide a working day schedule that shows the various activities of Work in sufficient detail to demonstrate a reasonable and workable plan to complete the Project by the Completion Date. Show the order and the sequence for accomplishing the Work. Describe all activities in sufficient detail so that the Engineer can readily identify the Work and measure the progress of each activity. The bar chart schedule must reflect the scope of work, required phasing, maintenance of traffic requirements, interim completion dates, the Completion Date, and other project milestones established in the

Contract Documents. Include activities for submittals, working and shop drawing preparation, submittal review time for the Department, material procurement and fabrication, and the delivery of materials, plant, and equipment, and other similar activities. The schedule must be detailed on letter or legal sized paper.

b. Activity requirements are discussed in further detail as follows:

(1) Activity Description

Assign each activity an unambiguous descriptive word or phrase. For example, use "Excavate Area A," not "Start Excavation."

(2) Activity Original Duration

Indicate a planned duration in calendar days for each activity. Do not exceed a duration of 20 working days for any activity unless approved by the Engineer. Do not represent the maintenance of traffic, erosion control, and other similar items as single activities extending to the Completion Date. Break these Contract Items into component activities in order to meet the duration requirements of this paragraph.

2. Early Completion Schedule. An Early Completion Schedule is defined as a baseline schedule or update schedule which anticipates completion of all work prior to the Completion Date established by the contract documents and the Contractor submits as an Early Completion Schedule. In the event that an Early Completion Schedule is accepted, the Engineer will initiate a change order amending the Completion Date to the finish date shown on the accepted Early Completion Schedule. The amended Completion Date will be effective upon execution of that change order and all contract provisions concerning the Completion Date such as incentives, disincentives, excusable delays, compensable delays, and liquidated damages will be measured against the amended Completion Date. The Contractor may elect not to execute the change order amending the Completion Date; however, in so doing, the Contractor waives its rights to delay damages in meeting the projected early Completion Date.

3. Updated Progress Schedule. Submit an updated progress schedule when ordered by the Engineer. The Engineer may request an updated progress schedule when progress on the work has fallen more than 14 calendar days behind the latest accepted progress schedule. Information in the updated schedule must include a "% work completed" value for each activity.

4. Recovery Schedule. If the progress schedule projects a finish date for the Project more than 14 calendar days later than the Completion Date, submit a revised schedule showing a plan to finish by the Completion Date. The Department will withhold Estimates until the Engineer accepts the revised schedule. The Engineer will use the schedule to evaluate time extensions and associated costs requested by the Contractor.

108.05

On page 51, after the first paragraph Add the following:

Ensure that no debarred individuals listed on the Federal website: www.epls.gov or State debarment list at the website: www.dot.state.oh.us/divisions/contractadmin/ act in any ownership, leadership, managerial, or other similar position that could influence the operations of an entity doing business with the Department.

108.06.A

On page 52, in the third paragraph of the section, **Replace** the first sentence with: The Department will not evaluate a request for extension of the Completion Date unless the Contractor notifies the Engineer as specified in 104.05. Notification shall be in writing to the Engineer within 30 days following the termination of the event giving rise to the request and shall be accompanied by supporting analysis and documentation.

108.07

On page 56 **Replace** the existing table with the following:

TABLE 108.07-1 SCHEDULE OF LIQUIDATED DAMAGES

Original Contract Amount (Total Amount of the Bid)		Amount of Liquidated Damages to be Deducted for Each Calendar Day of Overrun in Time
From More Than	To and Including	
\$0.00	\$500,000	\$500
\$500,000	\$2,000,000	\$1,000
\$2,000,000	\$10,000,000	\$1,500
\$10,000,000	\$50,000,000	\$2,600
Over 50,000,000		\$3,200

108.11

On page 57, **Delete** the entire subsection **108.11 Post Construction Meeting**. (See new section **108.02 Partnering**).

109.05.C.6

On page 71, **Replace** the first paragraph of 109.05.C.6 with:

6. Subcontract Work. For Work performed by an approved subcontractor, the Department will pay an amount to cover administrative costs of 8% on the first \$10,000 of work and 5% for work in excess of \$10,000 as provided in 109.05.C.2 through 109.05.C.5. No additional mark-up is allowed for work of a subcontractor or trucking services employed by a subcontractor.

109.05.C.6

On page 72, **Delete** Table 109.05-2.

109.05.C.8

On page 72, **Replace** the first paragraph of 109.05.C.8 with:

8. Trucking.

a. Trucking firms and owner operators not subject to prevailing wage will be paid at the invoiced cost plus 8% on the first \$10,000 of trucking and 5% for trucking in excess of \$10,000 to cover administrative costs.

109.05.C.8

On page 72, **Delete** Table 109.05-3.

109.05.D.2.b

On page 75, **Replace** the last sentence with:

The Department will pay wages and fringes with a 20% mark-up to cover administrative costs.

109.05.D.2.d

On page 75, **Replace** with the following:

109.05.D.2.d Delay Costs.

2. Allowable Delay Costs.

d. Material Escalation or Material Storage. The Department will pay the Contractor for increased material costs or material storage costs due to the delay. Obtain the Engineer's approval before storing materials due to a delay. Payment will be based upon the accepted quantity of work performed during the period for which escalated costs have been approved. The Department will pay increased material costs with an 8% mark-up to cover administrative costs and any material waste inherent to the Work.

109.05.D.2.e(2)

On page 75, **Replace** the first sentence with:

The delay for which payment of field overhead is sought is only due to delays defined in 108.06.D.2, 108.06.D.3, 108.06.D.5 or for delays due to revised Work as specified in 104.02.B or 104.02.F.

109.09

On page 79, **Replace** the first two paragraphs with the following:

109.09 Estimates. If satisfactory progress is being made, the Contractor will receive monthly payments equaling the Work and materials in place. The monthly payment is approximate, and all partial estimates and payments are subject to correction in the Final Estimate and payment. Payment for Work and materials shall not, in any way, prevent later rejection when defective Work or material is discovered, or constitute acceptance under 109.11 or 109.12.

Except for estimates generated during Project finalization, The Department will not pay an estimate until the Contractor certifies to the Engineer that the work for which payment is being made was performed in accordance with the contract. Certification will be made on forms provided by the Department.

109.12.C

On page 81, **Replace** the entire subsection with the following:

C. Finalization. The Contractor shall accept the final quantities as determined by the Engineer or provide a written notice indicating the reason for disagreement within 30 Calendar Days of receiving the Engineer's list of final quantities. The prescribed 30 Calendar Day period can be modified by mutual agreement of the Contractor and the District Construction Engineer. If no notice of disagreement is received, then the final payment will be based on the Engineer's list of final quantities.

Supply all documents necessary for Project finalization within 60 Calendar Days from the date that the Work is physically complete. These documents include:

1. Delinquent material certifications.
2. Delinquent certified payrolls or required revised payrolls.
3. Wage affidavit required by ORC Chapter 4115 on projects without any Federal funding.
4. Delinquent force account records.
5. If applicable, DBE affidavits.
6. Any other document required to complete finalization of the project.

Failure to submit these acceptably completed documents will result in an administrative fee of \$100 per Calendar Day for every day that any of the required documents remain delinquent, starting 30 Calendar Days after receipt of written notification from the Engineer of a document deficiency.

201.02.B

On page 83, **Replace** 201.02.B with the following:

B. In order to retard and prevent the spread of destructive insects, including the emerald ash borer and Asian longhorned beetle, limit the movement of regulated articles according to Ohio Administrative Codes 901:5-56 and 901:5-57. Observe requirements for handling and transporting of regulated articles in quarantined areas as defined by the Ohio Department of Agriculture (www.agri.ohio.gov).

The following are considered regulated articles and are subject to the quarantine established by the Ohio Department of Agriculture:

1. Deciduous trees of any size.
2. Deciduous limbs and branches
3. Any cut non-coniferous (non-evergreen) firewood.
4. Deciduous tree bark and deciduous tree wood chips larger than 1 inch (25 mm).
5. Deciduous logs and lumber with the bark, outer inch of sapwood, or both attached.
6. Any item made from or containing deciduous tree wood capable of spreading emerald ash borer or Asian longhorned beetle.
7. Any means of conveyance capable of spreading emerald ash borer or Asian longhorned beetle.

Follow all other federal and state emerald ash borer and Asian longhorned beetle quarantines.

202.13

On page 90, **Add** the following text after the last paragraph in 202.13:

If removal of steps is measured by the foot (meter), the Department will measure the number of feet (meters) along the front edge of each tread. If the steps have an integral wall, the Department will include the thickness of the integral wall with the tread width measurement.

On page 91, **Add** the following pay item after "Steps Removed":

202 Foot (Meter) Steps Removed

203.02

On page 93, **Add** the word "siltstone" to the definition of rock in 203.02.O.

On page 93, **Delete** the word "siltstone" from the definition of shale in 203.02.P.

On page 94, **Delete** the words "or durable siltstone" from 203.03.D.

203.10

On page 103, **Replace** the paragraph that begins "The Department will adjust earthwork quantities for changes ..." with the following paragraph:

The Department will not adjust earthwork quantities when the volume between two consecutive cross-sections differs by less than 5 percent from the plan quantity, unless the difference between the actual quantity and plan quantity is greater than 1000 cubic yards (1000 m³) for all pay items measured by the cubic yard (cubic meter) under Item 203, combined. For quantity differences greater than 5 percent or greater than 1000 cubic yards (1000 m³), submit supporting documentation to the Engineer. However, the Department will adjust earthwork quantities for changes less than 5 percent and 1000 cubic yards (1000 m³) when the change results from the following: undercutting, foundation settlement, changes to grades or slopes, and removing slides.

204.02

On page 104, **Replace** the second paragraph of 204.02 with the following:

Furnish material that conforms to 703.16.B or 703.16.C when Granular Embankment is specified. Furnish material that conforms to 703.16.C when Granular Material, Type ___ is specified, except do not use RPCC, EAF slag, or BOF slag.

205.04. A

On page 110, **Revise** the table title from Table 206.05-1 to Table 205.04-1.

205.07

On page 111, **Replace** the last sentence in the first paragraph with the following:

The Department will pay one-third of the lump sum amount bid when the chemically stabilized embankment is completed and accepted by the Department, and the field verification test results are all submitted.

206.05. C

On page 114, **Replace** the last paragraph of 206.05.C with the following:

The Contractor may either shape and fine grade the chemically stabilized subgrade before the curing period, or shape the subgrade before the curing period and fine grade after the curing period. If fine grading before the curing period, fine grade the same day as mixing, compacting, and

shaping. If fine grading after the curing period, shape the subgrade approximately 1 inch (25 mm) above the profile grade and typical sections. In either case, fine grade the subgrade to the profile grade and typical sections within the tolerances in 203.08.

206.08

On page 115, **Replace** the last sentence in the first paragraph with the following:

The Department will pay one-third of the lump sum amount bid when the chemically stabilized subgrade is completed and accepted by the Department, and the field verification test results are all submitted.

401.04

On page 170, **Replace** section 401.04 *Reclaimed Asphalt Concrete Pavement* with the following:

401.04 Reclaimed Asphalt Concrete Pavement and Reclaimed Asphalt Shingles.

Provide reclaimed asphalt concrete pavement (RAP) and/or reclaimed asphalt shingles (RAS) per the following requirements when choosing to use the in a mix. Failure to follow these requirements will result in a rejection of the Contractor QCP (403.03); restriction of any RAP or RAS use at the facility; and/or a change to Unconditional Acceptance at the facility.

Job Mix Formula. The Contractor may use a blend of new materials in combination with RAP obtained from verifiable Department or Ohio Turnpike Commission projects and/or RAS obtained from un-used manufactured shingle waste or used roofing tear-off shingles as listed in Tables 401.04-1 and 401.04-2 and as follows. If the RAP is not from the above sources or the source is unknown, process and blend the RAP into a single uniform stockpile, test according to Level 3 Asphalt Mix Design requirements and obtain District approval for use. Obtain written Laboratory approval for use of unusually large, old RAP stockpiles of unknown content and/or age. Include approved methods in the QCP for ongoing processing and testing of these piles. Ensure no foreign or deleterious material (703.04, 703.05) is present in RAP. All RAS suppliers must meet the requirements of Supplemental Specification 1116.

Ensure that the JMF falls within the specified limits of the required mix item. Ensure the JMF submittal includes the percentages of RAP, RAS, virgin aggregates, and virgin asphalt binder required for the mix item. Report all RAP and RAS test results, including binder blend analysis, in the JMF submittal. Identify the RAP in the JMF submittal as to project origin and mix type(s). Identify the manufactured shingle waste manufacturer source or the approved tear-off RAS processor in the JMF submittal.

Determine RAP properties and uniformity as follows. Determine the final RAP gradation and asphalt binder content on a minimum of four separate stockpile (or roadway for concurrent grinding) samples all agreeing within a range of 0.4 percent for asphalt binder content and 5 percent passing the No. 4 (4.75 mm) sieve. If fractionated RAP is used use a suitable sieve for determining gradation uniformity.

Determine RAS properties and usage as follows. Use no more than 5.0% RAS by dry weight of mix. For design assume 18.0% available RAS binder. Determine gradation and specific gravity per AASHTO PP 53-09, Section 5 or subsequent AASHTO applicable standard. Provide the required certification forms in the JMF submittal documenting that the RAS meets AASHTO MP 15-09,

sections 3.2 or 3.3 and that RAS from roofing tearoffs conforms to the EPA's NESHAP, 40 CFR 61 Subpart M, and other applicable agency requirements for asbestos.

RAP and RAS Usage Limits and Requirements. Process and use RAP and RAS as follows.

Process and use RAP by one of the following two methods. Note on the JMF submittal RAP page which of Method 1 or Method 2 methods described below apply to the RAP.

1) Method 1 Standard RAP. Include RAP in a JMF submittal per the Standard RAP/RAS Limits Table 401.04-1 unless specified differently in the applicable mix specification. For mixes that will contain up to 10 percent RAP the JMF submittal is not required to include the RAP except when a virgin polymer asphalt binder is used in a surface course. For surface course JMFs having polymer asphalt binder only submit at 0 or 10% RAP. If greater than 20 percent RAP is used in a JMF submittal include an analysis of the recovered asphalt binder and blend per Level 3 Mix Design procedures to determine the grade of virgin asphalt binder to use.

TABLE 401.04-1
METHOD 1 – STANDARD RAP/RAS LIMITS

Asphalt Mix Application	Percent RAP by Dry Weight of Mix, Max.	RAS Usage*	Total Virgin Asphalt Binder Content, Min.	Comments
Heavy Traffic Polymer Surface Course	10	None	5.2	Polymerized binder is virgin. (For non-polymer virgin binder allow 20% max RAP and 5.0 min. virgin.)
Medium Traffic Surface Course	20	Manufacturing waste only	5.0	Polymer or non-polymer virgin.
Light Traffic Surface Course		Manufacturing waste only	5.2	
Intermediate Course	35	Manufacturing waste and tear-offs	3.0	Any mix type used as an intermediate course.
Base Course 301	50	Manufacturing waste and tear-offs	2.7	The Laboratory will establish the asphalt binder content.
Base Course 302	40 (30)	Manufacturing waste and tear-offs	2.0	A lower RAP limit of 30 percent will be required if poor production mixing or coating is evident.

* No more than 5.0% RAS by dry weight of mix

RAP Processing for Table 401.04-1 Method 1-Standard RAP. For surface courses process RAP to less than 0.75 inch (19 mm) and place a 0.75 inch (19 mm) screen on the cold feed. For other courses

place a 2-inch (50 mm) screen on the cold feed. Ensure that the RAP is the proper size to allow for complete breakdown in the plant. If mixing is incomplete, place a smaller screen on the cold feed.

2) Method 2 Extended RAP. Include RAP in a JMF submittal per the Extended RAP/RAS Limits Table 401.04-2 unless specified differently in the applicable mix specification. Only use Method 2 with counter flow drum plants or mini-drum batch plant configurations meeting 402. For mixes that will contain up to 15 percent RAP the JMF submittal is not required to include the RAP unless a virgin polymer asphalt binder is used in a surface course. For JMFs having polymer asphalt binder do not submit at 1 through 9% RAP.

If greater than 25 percent RAP is used in a JMF submittal include an analysis of the recovered asphalt binder and blend per Level 3 Mix Design procedures to determine the grade of virgin asphalt binder to use. If the blending shows a grade change is required use a PG64-28 for heavy intermediate courses or PG 58-28 or 64-28 for medium intermediate or base courses. No grade change is required with RAP at 26% to 40% if Warm Mix Asphalt (WMA) technology is used in a manner to maintain the mix temperature below 275 °F (135°C). Use WMA technology meeting 402.09. Other WMA technologies must be approved by the Laboratory. If desired, WMA may be used to control plant temperatures when producing mixes using RAP above 40%, but a grade change is required if shown necessary by the blending index.

TABLE 401.04-2
METHOD 2-EXTENDED RAP/RAS LIMITS

Asphalt Application	Mix	Percent RAP by Dry Weight of Mix, max.	RAS Usage*	Total Virgin Asphalt Binder Content, min.	Comments
Heavy Traffic Polymer Surface Course		15	None	5.0	Polymerized binder is virgin. (For non-polymer virgin binder allow 25% max RAP and 4.6 min virgin.)
Medium Traffic Surface Course		25	Manufacturing waste only	4.8	Polymer or non-polymer virgin.
Light Traffic Surface Course			Manufacturing waste only	5.0	
Intermediate Course		40	Manufacturing waste and tear-offs	3.0	Any mix type used as an intermediate course.
Base Course 301		55	Manufacturing waste and tear-offs	2.5	The Laboratory will establish the asphalt binder content.
Base Course 302		45 (35)	Manufacturing waste and tear-offs	1.8	A lower limit of 35 percent will be required if poor coating is evident. The virgin requirement of 302.02 does not apply.

* No more than 5.0% RAS by dry weight of mix

RAP Processing for Table 401.04-2 Method 2-Extended RAP. Process RAP by means of fractionation or by additional in line processing. Include in the QCP additional methods and procedures to dictate how this is to be accomplished at plants. Specify documentation method for RAP measurement. Fractionation is the process of creating separate piles of RAP from one pile when split over a specific sieve or sieves. Test fractionated piles to show uniformity. For additional in line processing only process RAP from a uniform, tested and approved stockpile by passing the RAP over a double deck screen placed in-line between the RAP cold feed bin and the mixer. Use a 9/16 inch (14.3 mm) screen for surface and intermediate mixes and a 1.5 inch screen for base mixes. Do not use concurrent project RAP in a stream process.

3) RAS Processing and Usage. Include RAS in a JMF submittal per the Standard RAP/RAS Limits Table 401.04-1 or Extended RAP/RAS Limits Table 401.04-2 unless specified differently in the applicable mix specification.

Ensure RAS is processed to have 100 percent passing the ½ inch sieve and at least 85 percent passing the No. 4 sieve. Ensure RAS has less than 1.0 percent deleterious materials and 0.1 percent metals by weight. Do not blend RAS from manufacturing waste and RAS from roofing tearoffs.

Ensure the approved QCP includes RAS usage methods before using RAS. Include in the contractor QCP what contractor requirements apply to the RAS processor.

Introduce and control RAS in asphalt plants in the same manner as RAP is introduced and controlled. RAS for base courses may be preblended with RAP if using rate control equipment to ensure uniformity of blending and if satisfactory blend and production is achieved. RAS may be preblended with a small amount of virgin aggregate meeting 703.05 to minimize stockpile agglomeration. Include in the contractor QCP blending equipment type and operation and uniformity testing requirements for preblended RAP and RAS or RAS and virgin aggregate. Other methods must be approved by the Laboratory.

RAP and RAS QC and Management Requirements. Maintain as part of the QC records the signed certification forms as required in Supplemental Specification 1116.

Always note on the daily quality control report how much RAP and RAS is actually being used. Apply a tolerance of +/-5.0% on the amount of RAP used if needed for a quality control adjustment but do not exceed the limits of Table 401.04-1 or Table 401.01-2, whichever applies. If this adjustment is not adequate for maintaining control of the mix submit a new JMF for approval. Do not apply this tolerance to RAS.

Include in the QCP methods to be used to meet Method 1 and Method 2 requirements above and the following requirements:

Provide enough space for meeting all RAP and RAS handling requirements at a hot mix facility. Provide a clean, graded base for stockpiles that does not collect water. Test blended RAP and RAS stockpiles to assure uniform gradation and asphalt binder content. Ensure uniform stockpile properties match the JMF submitted RAP and RAS properties unless the uniform stockpile will be processed into the asphalt plant using plant cold feed in line processing.

If the uniform stockpile will be processed into the asphalt plant using plant cold feed in line processing determine the processed RAP properties for use in the mix design. Record in the JMF submittal both the uniform stockpile and in line processed RAP properties.

If desired, when applying Method 1 Standard RAP requirements, use concurrent Department project RAP in a stream process in place of stockpiling and testing for uniformity but do so in the following manner. Concurrent project RAP must be taken from one existing mix type on the concurrent project or two existing mix types if both mix types are taken at the same time in one pass of the milling machine. Submit a new JMF for each existing mix type on the project (or each milling pass of two types) desired for use as concurrent project RAP. Include in the QCP methods of validating RAP properties when using concurrent project RAP. If these requirements are not met blend and test for uniformity and apply the stockpile requirements of this specification.

Maintain in the plant lab and control room an up to date and dated site map of all tested and untested RAP and RAS stockpiles. Give each stockpile a unique identification and identify if RAS piles are from un-used manufactured shingle waste or used roofing tear-off shingles. Provide in the plant lab RAP and RAS properties for each uniform, blended stockpile cross referenced with its identification. In addition, provide the date the stockpile processing was completed and the stockpile estimated size in tons. The DET may require RAP and RAS pile staking for failure to maintain the above. Do not add to a stockpile

once it is tested for uniformity. Provide signage at all uniform stockpiles to inform haulers that uniform piles are not to be added to.

Stockpiles and processing methods are subject to inspection and approval by the DET at any time. Rejection of stockpiles can occur for the presence of foreign or deleterious materials, lack of uniformity, incomplete mixing in the asphalt mixture, adding to piles, or moving RAP or RAS in a way not traceable through the QCP records and methods. The Laboratory will resolve disputes over acceptability of RAP or RAS.

401.05

On page 173, in the 1st paragraph of this section, **Add** after the 1st sentence the following sentences: Schedule a date with the Department for approval inspection to be at least 1 week before mix production. Do not produce mixtures for projects from unapproved plants.

On page 178, **Replace** the third paragraph with the following:

Spread and finish the mixture using approved equipment or methods such that compaction can follow immediately. Preheat screeds and extensions before placing any asphalt concrete. Use side plates sufficient to contain the mixture laterally during spreading. Use only screed extensions, rigid or extendable, having the same features as the main screed including, but not limited to, vibration, heating, pre-strikeoffs, and tamping bars. When using front-mounted hydraulically extendable screeds at a fixed paving width use full width auger extensions and full tunnel extensions. When using fixed screed extensions use full width auger extensions and full tunnel extensions. Do not allow a buildup of excess material in front of any extended screed. Where excessive buildup of material is not controlled in front of the extended screed, the Engineer will require paver changes to correct the problem. The Contractor may use strike-off plates/strike-off extensions on irregular areas such as mailbox turnouts, driveway turnouts, and other irregular non-travelled roadway areas. The Engineer may approve the use of strike-off plates/extensions on variable width shoulders if the use of a standard extendable screed extension with the same features as the main screed is not practicable. Perform supplemental hand forming and tamping where irregularities develop and where placing the mixture by hand methods.

On page 178 after the 3rd paragraph in this section, **Add** the following paragraph:

Ensure the paver operation, screed, screed extension, and, or, mix design provide a mat, prior to compaction, that is free of texture inconsistencies, shadowing, streaking, tearing, pulling, or other deficiencies. Take immediate action to correct the paver operation, screed, screed extensions, or, mix design. The Engineer may stop placement until corrections are completed.

On page 179, **Replace** the 3rd, 4th, and 5th full paragraphs with the following:

When the total project includes more than one continuous lane mile (including bridges) of surface course paving in combination with night paving, provide a Material Transfer Vehicle (MTV) with paver hopper insert; a Material Transfer Device (MTD) with paver hopper insert; or a remixing paver specifically manufactured to eliminate segregation.

Provide equipment that:

- a. Includes a mixer/agitator mechanism that consists of either segmented, anti-segregation, re-mixing augers or two full-length longitudinal paddle mixers specifically designed for the

specific purpose of re-mixing. The longitudinal paddle mixers shall be located in the paver hopper insert.

- b. Eliminates segregation, and provides a uniform temperature throughout the mixture;
- c. Limits temperature differentials to less than 25 °F (14 °C).

Use the equipment on all mainline lanes of the traveled way including express lanes, collector-distributor lanes, continuous center turn lanes, acceleration/deceleration lanes, and ramp lanes.

Use paver hopper inserts with a minimum capacity of 14 tons.

Remixing may be done by the MTV or MTD, in the paver hopper insert, or by the remixing paver.

Demonstrate to the Engineer that the selected equipment eliminates physical segregation and limits the temperature differential of the mat surface measured transversely to 25 °F (14 °C). Provide a method before the start of paving that ensures non-segregation and thermal differential requirements are met, continuously during placement operations.

Remove equipment that does not consistently eliminate physical segregation and, or, does not meet the temperature differential requirement.

401.16

On page 180, Section 401.16 Compaction, **Replace** the 6th paragraph with the following:

For surface courses using a polymer modified asphalt binder give a copy of the JMF approval letter containing the design compaction temperature to the Engineer before any mix is placed. Unless otherwise specified ensure that the mix temperature immediately before rolling is not less than 290 °F (145 °C) if placing hot mix asphalt, and not less than 250 °F (121 °C) if placing warm mix asphalt according to 402.09. Do not compact polymer asphalt concrete surface courses with pneumatic tire rollers.

On page 180, Section 401.16 Compaction, **Add** the following new paragraph after paragraph 8:

When using pneumatic tire rollers, ensure for any mix, that surface deviations and deformations caused by the tires are removed with steel wheel rollers. Do not use pneumatic tire rollers if any resultant surface deformations cannot be removed.

401.17

On page 181, Section Joints, **Replace** paragraph 6 with the following:

Seal all cold longitudinal construction joints by coating the entire face of the cold joint with a certified 702.01 PG binder or 702.13 SBR Asphalt Emulsion to provide 100 percent coverage of the joint. Overlap the joint edges by at least 1/2 inch (13 mm). Seal all cold transverse construction joints with a certified 702.01 PG binder or 702.13 SBR Asphalt Emulsion to provide 100 percent coverage of the joint or with a certified 702.04 asphalt material applied at a rate of 0.25 gallon per square yard (1 L/m²).

401.19

On Page 182, Paragraph 6, **Delete** paragraph 6 of 401.19 and replace with the following paragraph:

Check the surface course for variations in slope or surface at locations where bumps are suspected when directed by the Engineer.

402

On page 183 **Replace** the entire section with the following:

ITEM 402 ASPHALT CONCRETE MIXING PLANTS	
402.01	Description
402.02	Calibration
402.03	Polymer Binders
402.04	Water Injection System for Warm Mix Asphalt

402.01 Description. This specification consists of the minimum requirements for an asphalt concrete mixing plant to produce asphalt concrete mixes according to Department specifications.

Ensure asphalt concrete mixing plants conform to the requirements of Supplement 1101 in addition to the following.

402.02 Calibration. Ensure the plant is calibrated according to Supplement 1101 when producing any asphalt concrete for the Department. Ensure that the calibration is accurate within 1.0 percent. When performing a complete calibration for ODOT projects notify the ODOT district 24 hours in advance of the calibration.

402.03 Polymer Binders. If an asphalt binder is modified by SBR at an asphalt concrete mixing plant, equip the plant with an automated SBR flow control and monitoring system. Obtain the Department's approval of the system before operating and demonstrate the system calibration to the District. If the District waives the demonstration, provide a letter documenting calibration data for the flow system to the DET for each project. Obtain written approval from the Laboratory for the use of SBR and ensure the QCP contains methods for properly controlling SBR.

For drum mix plants, introduce the SBR directly into the asphalt binder line through means of an in-line motionless blender or other device approved by the Laboratory which is able to provide a homogeneous blend. Locate a sampling valve between the in-line blender and the plant drum.

For batch plants, add the SBR after the aggregate has been completely coated with asphalt binder. Continue mixing for a minimum of 20 seconds after SBR is added and long enough to provide a uniform mixture.

Ensure the SBR pumping and metering system is capable of adding the SBR within the limits of 702.01. For drum plants ensure the SBR pump is automatically controlled by an independent computer and interfaced with the asphalt binder flow to automatically maintain the SBR flow within specification limits. Produce asphalt mixtures for placement in automatic SBR control mode only.

Ensure the SBR meter is accurate to +/- 2.0 percent over a flow range typical of that used at the asphalt plant (typically 0.8 to 12 gpm at drum plants and 10 to 25 gpm at batch plants). Ensure the SBR meter is a magnetic flow meter consisting of a metering flow tube which utilizes Faraday's Law of Induction to measure the flow and includes a transmitter to transmit the flow signal to a totalizer located in the control room of the asphalt plant. Locate the SBR meter downstream of any recirculation lines. Provide a means for removing the SBR line at the in-line blender to be able to obtain a sample of the SBR for calibration purposes.

Obtain Laboratory approval for use of any other type of SBR meter. Ensure the totalizer displays total volume measured and flow rate in standard engineering units. Ensure the totalizer is interfaced with a data logger which produces printouts of the logged data every five minutes for a drum plant or every batch for a batch plant. Ensure the logged data includes time, date, flow rate, and flow total except flow rate is not necessary for batch plant production.

Balling or wadding of SBR or uncoated aggregate indicates improper mixing; cease production immediately and until corrected to District satisfaction.

402.04 Water Injection System for Warm Mix Asphalt When allowed by specification use a Department-approved water injection system for the purpose of foaming the asphalt binder and lowering the mixture temperature. Only use equipment that has been proven stable and effective through project use on non-ODOT projects. Ensure equipment for water injection meets the following requirements:

1. Injection equipment computer controls are in the plant control room and are tied to the plant computer metering.
2. Injection equipment has variable water injection control controlled by the plant operation rate and the water injection can never exceed 1.8% by weight of asphalt binder.
3. Water injection rate cannot be manually overridden by the plant operator once in the computer.
4. Injection equipment stops water flow when a control or equipment failure in the injection system occurs.
5. The water injects into the asphalt binder flow before the asphalt binder spray hits aggregate. Do not allow water to touch aggregate before the binder spray.
6. Injection equipment includes water storage and pump control tied to the injection computer controls.
7. Water storage low water alarm installed in the control room.
8. Provide a PG binder sampling valve between the last piping tee on the tank side of the line and the injection equipment to sample PG binder before water is injected.

403.03

On page 188, **Replace** the 3rd sentence of the 1st Paragraph, with the following:

A minimum of 3 weeks before mix production, but no later than February 28, submit a hard copy of the proposed QCP to the Laboratory for review and approval.

On page 188, **Replace** the 2nd paragraph with the following:

Send a hard copy and a digital copy (if available) of the approval letter and approved QCP to the DET in every District in which work is performed. Keep copies of the approval letter and the

approved QCP in each Contractor plant laboratory and plant operation control room. Digital copies of the approved QCP and approval letter in pdf format are allowed in each Contractor plant laboratory and plant operation control room with the following requirements: The file icon must be appropriately labeled and be on the computer desktop of a computer in each area, the QCP must contain a Table of Contents inside the front cover locating all sections by page number and the QCP must be page numbered, and out of date QCPs must be removed from the computer desktop.

403.03. A

On page 188, **Replace** sentence 5 of the current Subsection A with the following:
Assign Level 2 technicians for all Level 2 QC testing duties, and provide a list designating their responsibilities and expected actions.

On page 188, **Insert** a new sentence 7 in the current Subsection A as follows:
Define in the QCP who is responsible at plants and specific methods for assuring haul vehicles meet all requirements and proper bed release products are used.

403.03. C

On page 188, **Delete** the following words in the 1st sentence of the current Subsection C:
“when tests are outside warning band limits of the QCP”

403.03. D

On page 189, **Replace** the current Subsection D with the following:
D. Methods to maintain all worksheets, including all handwritten records, and other test records for the duration of the contract or 5 years, whichever is longer. Define the test record process. Define company records retention requirements. Provide copies of all test reports and forms used in the quality control process.

403.03. E

On page 189, **Replace** the current Subsection E with the following:
E. Procedures for equipment calibration and documentation for Level 2 lab equipment. Provide documentation that all Level 2 lab equipment has been calibrated at the time of the Level 2 lab approval inspection. Procedures for calibration record storage.

403.03. H

On page 189, **Replace** entire paragraph with the following:
H. All procedures to meet the processing, testing and documentation requirements for RAP and RAS in 401.04 including test forms, record keeping, technician responsibilities, etc.

403.06

On page 190, **Replace** the 1st paragraph with the following:
The Department will perform VA. If the random Department sampling and testing verifies the accompanying Contractor tests, the results of all the Contractor's quality control tests for each day (for Basic mix), the Contractor's tests for each Lot (for 448 mix), or daily average MSG (446 mix) will be used to determine acceptance.

403.06. A

On page 191 **Replace** paragraphs 3 and 4 with the following paragraphs:

Provide a clean area of sufficient size and a hard surface to perform sample splitting. Split samples by quartering and recombining according only as described in to AASHTO T 248, Method B for hard surfaces and recombining for the Department and Contractor's sample. The Department split sample size required is generally 22 to 27 pounds (10,000 to 12,000 g). A mechanical quartering device approved by the Laboratory may be used in lieu of the above but only split according to the procedure outlined in the Contractor QCP. Ensure that every quality control or Item 448 Sublot sample taken by the technician has a labeled split for the Department. Wrap and label the Department split samples as to Lot or Sublot, time, location (tonnage), and accompanying Contractor test identification. The Monitoring Team will pick up all Department split samples within 4 workdays. Sample mishandling (careless identification, changing sample size, consistency, or pre-testing) will result in a change to Unconditional Acceptance.

For Item 448 mixes, conform to the procedures of Supplements 1035, 1038, 1039, and 1043 except take samples from a truck at the plant. If workmanship problems continue on the project (segregation, etc.) or if quality control problems persist, the Monitoring Team may require sampling on the road according to Supplement 1035. Lots will be 3000 tons (3000 metric tons), and Sublots will be 750 tons (750 metric tons). However, when production is limited to less than 3000 tons (3000 metric tons), consider the quantity produced as a partial Lot. For partial Lots of 1500 tons or less sample and test at least two sublot samples regardless of the tons produced. Split and test all Sublot sample locations, as selected by the Monitoring Team or project and taken by the Contractor. The Contractor may test a Sublot QC sample at the required Sublot sample location instead of the required random quality control test as both a QC and Sublot test provided the sample is tested in the half day in which the Sublot sample mix was produced sample and is tested for all required quality control properties. Test results will apply for both QC and sublot requirements. A change in the location of the Sublot sample must be approved by the District and be reasonably close to the original location. This allowance does not apply to any other samples including Department VA sample locations selected by the Monitor. Label Department split samples as Sublot or quality control samples.

When the figures to be dropped in rounding off are exactly one-half of unity in the decimal place to be retained, round the value up to the nearest number in the decimal place to be retained.

On Page 191, **Add** a final paragraph to the current Subsection A as follows:

For Item 446 mixes MSG VA testing will be performed by the District on a minimum of one in every four required District-sampled Daily samples.

403.06. B

On page 192, In 2nd paragraph of this section, **Replace** the 2nd sentence with the following:

When the figures to be dropped in rounding off are exactly one-half of unity in the decimal place to be retained, round the value up to the nearest number in the decimal place to be retained.

403.06. C

On page 192, **Replace** the 1st and 3rd sentences of the 1st paragraph of the current Subsection C with the following respectively:

For Basic and 448 mixes the Monitor/District will randomly choose one Department sample in a maximum of every four production days for VA testing to confirm Contractor testing and mix control.

The Department VA sample location will be chosen randomly by the Monitor, including where in the truck to take the sample, if applicable.

On page 192, **Replace** the 2nd sentence of the 2nd paragraph of the current Subsection C with the following:

However, if the Department tests VA samples on Contractor equipment, test a VA sample on District lab equipment a minimum of one time in 15 production days from a given plant regardless of the number of projects or JMFs tested in the Level 2 lab.

On page 193, **Replace** existing paragraph 3 of the current Subsection C with two new paragraphs as follows:

For Item 446 mixes MSG VA testing will be performed by the District on a minimum of one in every four required District-sampled Daily samples. This result will be compared to that days Contractor average of MSG QC test results.

For all mixes, the District may increase the number of VA testing samples if desired.

On page 193, **Replace** Table 403.06-1 Department Verification Acceptance and Quality Control Test Comparison with the following:

TABLE 403.06-1 DEPARTMENT VERIFICATION ACCEPTANCE AND QUALITY CONTROL TEST COMPARISON					
	Percent Asphalt Binder		Percent Passing No. 4 (4.75mm)		MSG Comparison
	VA[1]	QC/lot test[2]	VA[1]	QC/lot test[2]	VA[3]
Basic	±0.3	±0.4	±4.0	±5.0	
448	±0.3	±0.3	±4.0	±4.0	
446					0.025
[1] District VA mix test deviation from Contractor split.					
[2] District VA mix test deviation from QC and/or lot test.					
[3] Deviation of District Daily sample MSG compared to QC MSG daily average.					

403.06. D

On page 194, **Replace** Table 403.06-2 Mix Acceptance with the following:

TABLE 403.06-2 MIX ACCEPTANCE			
Mix Type	Acceptance Tolerances or Method		
Basic Mixes (no acceptance limits stated in appropriate specification)		Deviation from JMF	Range
	Asphalt Binder Content	$\pm 0.5\%$	1.0
	No. 4 (4.75 mm) sieve	$\pm 6\%$	12
Basic Mixes (acceptance limits stated in appropriate specification)	Use acceptance limits in appropriate specification		
448 Mixes	Calculate pay factor according to 403.08		
446 Mixes	Calculate pay factor according to 446.05		

403.06 E. 2

On page 195, **Replace** the 1st sentence of the current Subsection E. 2. with the following:
If the District tests and investigation shows lack of Contractor mix control compared to the JMF the District will test the remaining Department split or Daily samples for the days or Lots represented by the original tests.

407.06

On page 199 **replace** paragraphs 5 and 6 in this section with the following paragraphs:

Apply the tack coat in a manner that offers the least inconvenience to traffic. Do not allow tack pick up and tracking by traffic or by construction vehicles. Take immediate steps to eliminate tack pick up and tracking. Only apply the tack coat to areas that will be covered by a pavement course during the same day unless using a lane closure lasting more than 24-hours.

Obtain the Engineer's approval for the quantity, rate of application, temperature, and areas to be treated before application of the tack coat. The Engineer will determine the actual application in gallons per square yard (Liters per square meter) by a check on the project. The application is considered satisfactory when the actual rate is within ± 10 percent of the required rate and the material is applied uniformly with no visible evidence of streaking or ridging. The Engineer will require repairs to equipment when ridging, streaking, or other non-uniform coverage is observed, and a subsequent test strip to demonstrate proper application.

If the application is not uniform and not corrected or there is pick up, and, or tracking the total square yardage of non-uniform application will be considered non specification material. The Engineer will determine the number of gallons (liters) for non-payment by using the approved rate of application times the total square yards (square meters) of non-uniform application, pick up, and or tracking.

421

On Page 206, **Replace** entire section 421.02 Materials with the following:

421.02

Use a polymer modified emulsified asphalt binder (Binder) consisting of the following materials milled together:

- A. Natural SBR latex modifier or synthetic SBR latex modifier conforming to 702.14. Use only one type of latex.
- B. CSS-1h or CSS-1m (as required below) emulsified asphalt conforming to 702.04, except the cement-mixing test is waived. Use only emulsion certified per Supplement 1032.
- C. Other emulsifiers.

Use CSS-1mL (as defined below) if the project ADTT is less than 2000, otherwise use CSS-1hL (as defined below). Do not use port addition of the polymer to the emulsified asphalt. Provide to the Engineer certified test data and a statement from the Binder manufacturer with each load of Binder that the Binder is the same formulation as used in the mix design. Ensure the Binder meets one of the following.

CSS-1hL: Combine CSS-1h and SBR latex modified (L) to yield 3 percent SBR solids based on the weight of the asphalt binder content of the Binder. Ensure that the SBR latex modified residue conforms to the following requirements:

Test	Description	Specification
AASHTO T 59 (Note 1)	Residue	62 %
AASHTO T 53	Softening Point	60 °C minimum
AASHTO T 202	Absolute Viscosity @ 60 °C	8000 poise minimum

Note 1 - 24 hours at 77 °F (25 °C) in forced draft oven

CSS-1mL: Combine CSS-1m and SBR latex modifier (L) to meet the following properties.

Tests on emulsion, ASTM D 244, unless otherwise designated:	
Viscosity, Saybolt Furol, ASTM D 88, at 25 °C (sec)	20 to 100
Storage Stability Tests, 24-hr (% difference)	1 maximum
Particle Charge Tests	Positive
Sieve Tests (%) (Distilled Water)	0.10 maximum
Distillation to 260 °C, % by Weight, Residue, min[1]	62
Tests on distillation residue:	
Penetration, 25 °C, 100 g, 5 sec (dmm) ASTM D 5	70 to 90
Ductility, 4 °C, 5 cm/min, ASTM D 113	40 minimum
Elastic Recovery, 4 °C, 10 cm (%) [2]	65 minimum
Softening Point, Ring & Ball (°C) ASTM D 36	60 minimum

[1] ASTM D 244, with modifications to include a 400 °F ± 10 °F (204 °C ± 6 °C) maximum temperature to be held for 15 minutes.

[2] Straight molds. Hold at test temperature for 90 minutes. Place in ductilometer and elongate 10 cm at 5 cm/min. Hold for 5 minutes and cut. After 1 hour retract the broken ends to touch and measure the elongation (X) in centimeters. Use the following formula to calculate the elastic recovery:

$$\text{Elastic Recovery (percent)} = \left(\frac{10 - X}{10} \right) \times 100$$

Conform to 703.01 and 703.05 for aggregate, except as follows:

Percent by weight of fractured pieces	100
Sand Equivalence (ASTM D 2419)	45 minimum

Conform to Gradation A for the aggregate for leveling and surface courses and to Gradation B for the aggregate for rut fill courses according to the following:

Sieve Size	Total Percent Passing	
	A	B
3/8 inch (9.50 mm)	100	100
No. 4 (4.75 mm)	85 to 100	70 to 90
No. 8 (2.36 mm)	50 to 80	45 to 70
No. 16 (1.18 mm)	40 to 65	28 to 50
No. 30 (600 µm)	25 to 45	19 to 34
No. 50 (300 µm)	13 to 25	12 to 25
No. 100 (150 µm)	--	7 to 18
No. 200 (75 µm)	5 to 15	5 to 18

Screen the aggregate for oversize material prior to use. For mineral filler, use Portland cement conforming to ASTM C 150, Type I. Use water conforming to 499.02. Use mix set additives as required.

422.02

On Page 213, **Replace** the 1st full paragraph with the following:

Use polymer emulsified binder conforming to 702.16 Type A.

422.02

On Page 213, Replace the 2nd paragraph with the following:

Provide cover aggregate for the chip seal Job Mix Formula (JMF) of washed limestone or dolomite meeting 703.05. Do not use an aggregate source designated with "SR" on the Aggregate Source Group list in accordance with 703.01F. Additionally the following requirements apply:

422.06

On Page 216, **Replace** 1st paragraph with the following

Remove all existing pavement markings 740.03 (polyester), 740.04 (thermoplastic) and 740.07(epoxy) using an abrasion method conforming to 641.10.

422.10. B

On page 218, **Replace** the 1st sentence of the current Subsection B with the following:

Within one hour of start of production obtain and label a binder sample from the distributor truck and give the sample to the Engineer the same day. Provide and sample the binder in one quart plastic containers with plastic screw tops. Take more samples when requested by the Engineer.

422.13

On Page 224, **Replace** the 2nd paragraph under the subsection with the following: The cost of removal of all existing pavement markings according to 422.06 is incidental to this item.

424.03

On page 224 **Replace** the 2nd paragraph in this section with the following paragraph:

Use a PG 76-22M asphalt binder; or a PG 64-22 asphalt binder modified by adding 5.0 +/- 0.3 percent by weight Styrene Butadiene Rubber (SBR) solids and meeting the requirements of PG 76-22 . Provide SBR conforming to 702.14. Provide mineral filler conforming to 703.07. Provide binders conforming to 702.01.

On page 224, **Replace** the 1st sentence in the 3rd paragraph with the following: Ten percent reclaimed asphalt concrete pavement may be used in a Type B mix if all requirements of footnote 3 are met by the reclaimed asphalt concrete.

On page 224, (3) Fine Aggregate— After the last sentence of this section **add** the following sentence: Contact the Office of Materials Management, Asphalt Materials section for guidance on submitting RAP aggregate silicon dioxide data.

On page 224, (4) Coarse Aggregate – **Replace** entire paragraph with the following:

(4) Coarse Aggregate - For medium mixes, for the final blend of all coarse aggregate use a minimum 10 percent two - or more fractured faces aggregate. For heavy mixes, use 100 percent two or more fractured faces aggregate. Meet the two or more fractured faces aggregates criteria of ASTM D5821 (reapproved 2006).

424.04

On page 325, **Replace** section 424.04 Mixing with the following:

424.04 Mixing. Ensure the mixing plant conforms to 402. Discharge the mix from the plant at temperatures between 335 °F to 370 °F (168 °C to 188 °C) for hot mix asphalt or 300 °F to 340 °F (149 °C to 171 °C) for warm mix asphalt.

441.09 Contractor Mix Design and AC, Quality Control Tests, A. Asphalt Binder Content.

On page 234 at the end of paragraph 2 in this section, **add** the following sentence:

Only take SBR PG-Modified Binder samples using a five gallon bucket, stirring its contents and transferring to the required sample containers.

442

On page 239 **Replace** Table 442.02.02 with the following:

TABLE 442.02-2 AGGREGATE GRADATION REQUIREMENTS

Sieve Size	9.5 mm mix (% passing)	12.5 mm mix (% passing)	19 mm mix (% passing)
1 1/2 inch (37.5 mm)			100
3/4 inch (19 mm)		100	85 to 100
1/2 inch (12.5 mm)	100	95 to 100	90 max
3/8 inch (9.5 mm)	90 to 100	96 max	
No. 4 (4.75 mm)	70 max	52 min	
No. 8 (2.36 mm)	34 to 52	34 to 45	28 to 45
No. 200 (75 µm)	2 to 8	2 to 8	2 to 6

442.01

On page 238, **Delete** the last sentence of the second paragraph that states:
“Do not use the warm mix...”

446.05

On page 247, **Replace** the 2nd paragraph of this section with the following:
Obtain ten, 4-inch cores for the Department to test to determine the in-place density of the compacted mixture as a percentage of the average QC Maximum Specific Gravity (MSG) for the production day the material was placed. If Department MSG VA tests show poor comparison to the average QC MSG according to 403.06 use Department determined MSG results in the density calculation for each production day. Compact shoulders using the same equipment and procedures as used on the mainline pavement. The requirements of 401.16, except for the last four paragraphs, are waived.

451.02

On page 253, **Replace** the first line under the subsection heading with:
Concrete, Class C 499 or Class RCA 499.10

451.03

On page 254, **Replace** the first paragraph of Section B. Slip Form Construction with the following:
B. Slip Form Construction. Place concrete using an industry-standard slip form paver designed to spread, consolidate, screed, and finish the freshly placed concrete in one complete pass of the machine and with a minimum of hand finishing providing a dense and homogeneous pavement.

451.08

Starting on page 257, **Replace** the entire subsection with the following:

451.08 Joints. Unless otherwise directed, construct all transverse joints normal to the centerline of the pavement lane and of the type, dimensions, and at locations specified.

Determine contraction and longitudinal joint sawing time limits to protect the concrete from early cracking by using HIPERPAV software. Obtain the software according to Supplement 1033.

Twenty four (24) hours before placing concrete pavement create a HIPERPAV project date file according to Supplement 1033.

Provide the completed file and the printout to the Engineer. When HIPERPAV predicts early age slab cracking will occur, whether due to standard construction practices, joint sawing methods, mix design or curing, either do not start construction until modifications have been made to eliminate HIPERPAV's predicted slab cracking or do not pave.

Perform a HIPERPAV analysis for each pour.

If software analysis determines joint sawing could exceed twenty four (24) hours, assure all joints are sawed by the 24th hour.

A HIPERPAV analysis showing paving can proceed does not eliminate the requirements of 451.16.

Accurately mark the correct locations of all joints that will be saw cut along both edges of the pavement. Ensure the method of marking remains clearly visible after the paver passes and until the joint saw cut is completed.

A. Longitudinal Joint. Construct longitudinal joints between simultaneously placed lanes by sawing.

When a standard (water cooled diamond bladed) concrete saw is used to make the longitudinal joint between simultaneously placed lanes, saw the joint within the timeframe provided in the HIPERPAV output. For pavement less than or equal to 10 inches (255 mm), saw the joint to a minimum depth of one-fourth the specified pavement thickness. For pavements greater than 10 inches (255 mm) thick, saw the joint to a minimum depth of one-third the specified pavement thickness. Saw joints $1/4 \pm 1/16$ inch (6 ± 1.6 mm) wide measured at the time of sawing.

When using early-entry (dry cut, light weight) saws to make the longitudinal joint between simultaneously placed lanes, only use saw blades and skid plates as recommended by the saw manufacturer for the coarse aggregate type being used in the concrete. Perform the early-entry sawing after initial set and before final set. Saw the joint $1/8$ inch (3 mm) wide and $2 \frac{1}{4}$ to $2 \frac{1}{2}$ inches (56 to 63 mm) deep.

Place deformed epoxy coated steel tiebars or the epoxy coated hook bolt alternate (wiggly bolt) with epoxy coated coupling, in longitudinal joints during consolidation of the concrete. Install them at mid-depth in the slab by approved mechanical equipment. As an alternate procedure, rigidly secure them on chairs or other approved supports to prevent displacement. Provide tie bars or wiggly bolts of the size and spaced as shown on the standard construction drawings. If used, securely fasten hook bolts or wiggly bolts with couplings to the form at the longitudinal construction joint as shown on the standard construction drawings.

B. Transverse Joints

Unless otherwise directed, construct all transverse joints normal to the centerline of the pavement lane and of the type, dimensions, and at locations specified.

For all transverse joints, install round, straight, smooth, steel dowel bars of the size shown in Table 451.08-1.

TABLE 451.08-1 DOWEL SIZE	
Thickness of Pavement (T)	Diameter of Steel Dowel
Less than 8 1/2 inches (215 mm)	1 inch (25 mm)
8 1/2 to 10 inches (215 to 255 mm)	1 1/4 inches (32 mm)
Over 10 inches (255 mm)	1 1/2 inches (38 mm) or as shown on the plans

Within 2 hours prior of placing concrete coat the full length of all dowels with a thin uniform coat of new light form oil as a bond-breaking material.

Load Transfer Assemblies.

Use load transfer (dowel basket) assemblies in transverse contraction joints conforming to and placed according to the standard drawings to hold the dowels in a position parallel to the surface and centerline of the slab at mid-depth of the slab thickness.

Preset all dowel basket assemblies before the day's paving unless the Engineer determines complete presetting is impractical.

Completely install dowel basket assemblies before shipping and spacer wires are removed.

Immediately before paving, remove all shipping and spacer wires from the dowel basket assemblies; check the dowel basket assemblies are held firmly in place; check the dowels are parallel to the grade and parallel to centerline of pavement.

For each joint assembly used to hold dowels in position, provide a continuous assembly between longitudinal joints or between the longitudinal joint and pavement edge. Drive at least eight 1/2-inch (13 mm) diameter steel pins a minimum of 18 inches (460 mm) long at an angle to brace the assembly from lateral and vertical displacements during the placing of concrete. Drive two of these pins opposite each other at each end of the assembly, and drive the remaining pins in staggered positions on each side of the assembly. Where it is impractical to use the 18-inch (460 mm) length pins, such as where hardpan or rock is encountered, and provided the assembly is held firmly, the Engineer may authorize use of shorter pins. Where the dowel basket assembly is placed on granular material that may allow settlement or distortion, anchor the assembly with a combination of pins and steel plates, or by some other means satisfactory to the Engineer to prevent settlement.

When concrete pavement is placed on an existing concrete pavement or on a stabilized base, secure dowel basket assemblies from lateral and vertical displacement during concrete placement using power-driven fasteners and appropriate clips or pins driven in predrilled holes of a diameter slightly less than the pin diameter. Use either of the above methods or a combination of the two in sufficient numbers to adequately secure the basket assemblies.

Where widths other than 12 feet (3.6 m) are specified, the Contractor may use standard dowel basket assemblies with dowel spacings adjusted as follows. Maintain 6-inch (150 mm) dowel spacing at the longitudinal joint and increase the spacing at the outer edge of the lane up to 12 inches (300 mm). Where an odd width of lane occurs and if the standard dowel basket assembly would provide for a space exceeding 12 inches (300 m), place a dowel 6 inches (150 mm) from the outer

edge of the lane). Hold such a dowel rigidly in proper position by a method satisfactory to the Engineer or cut and splice a dowel basket assembly of greater length than required to attain the required length.

Slip Form Paver with Mechanical Dowel Bar Inserter.

The Contractor may propose to use a slip form paver with mechanical dowel bar inserter (DBI) to place dowels in transverse contraction joints the full thickness of pavement and spaced per the requirements of the standard construction drawings. Submit details and specifications of the proposed equipment to the Engineer at least 14 calendar days prior to mobilizing the equipment to the project.

The use of any slip form paver with DBI is allowed only after acceptable performance is demonstrated with a test section and approved by the Engineer. Continued verification during all contract paving is required for each production day as detailed below.

Provide all equipment, perform all testing, and evaluate the slip form paver with DBI as detailed in the following sections.

1. MIT Scan-2 Equipment and Reporting

Provide MIT Scan-2 equipment to determine the location of dowel bars in either fresh or hardened concrete including horizontal translation, longitudinal translation, vertical translation, horizontal skew, vertical tilt, and cover.

Provide equipment for determining dowel bar alignment that has an onboard computer that runs the test; collects and stores the test data on a memory card; performs the preliminary evaluation; and provides a printout of results immediately after scanning. Provide MagnoProof software to provide a detailed report of all required alignment parameters in an Excel spreadsheet and a graphical color representation.

Ensure the equipment is properly calibrated conforming to the manufacturer's specifications and for the specific project conditions. Provide calibration documentation to the Engineer prior to the start of construction. Establish a standard protocol for scanning direction.

Provide trained personnel to operate the equipment and documentation of training prior to start of construction.

Provide a print out, at the time of scanning, for horizontal translation, longitudinal translation, vertical translation, horizontal skew, vertical tilt, and cover for each bar in each joint scanned. For each Test Section and daily, for each day of production, provide a complete report to the Engineer at the completion of scanning along with a digital copy of all data collected in the manufacturer's native file format as well as all calibration files. Include the standard report generated using the MagnoProof software in Excel format and with color graphical representation of each joint. Include in the report project contract number, county-route-section, placement date, scan date, station location and lane, joint ID number, name of operator, and all required alignment parameters.

If non-magnetic dowel bar materials are to be used, propose and demonstrate alternative measurement equipment to the Engineer showing capability to provide measures equal or similar to the acceptance and rejection criteria of Table 451.08-2. Obtain the Engineer's approval of alternative equipment prior to paving. If no alternative equipment can demonstrate the required capability, do not use the slip form paver with DBI.

Prior to paving, review the measurement equipment applicability for the project conditions with the Engineer, including: ambient moisture conditions, dowel material, metallic concrete aggregate and potential contributors to magnetic interference (presence of tiebars, reinforcing steel or other embedded or underlying steel items that may affect measurement accuracy). Establish how the measurement device can meet the project conditions. If the measurement device cannot meet the project conditions, do not use the slip form paver with DBI.

2. Acceptance/Rejection

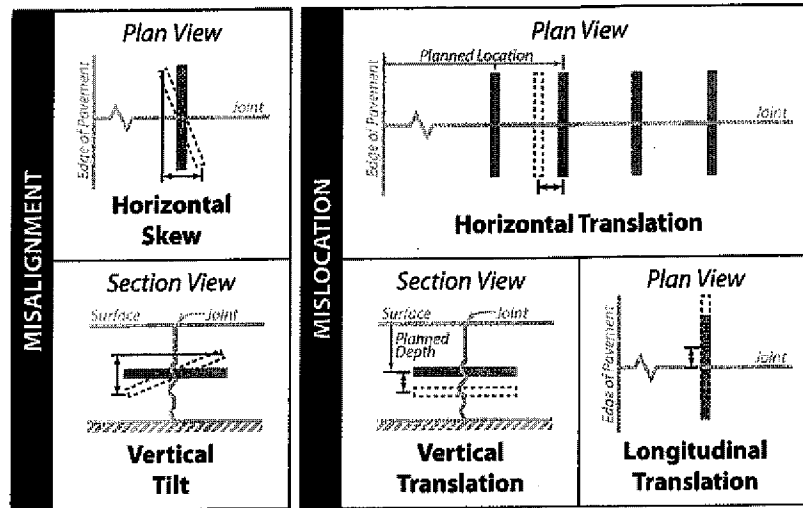
The required dowel bar tolerances are given in Table 451.08-2. Dowel bar alignment is measured as detailed below. Any dowel bar exceeding any Acceptance Tolerance in Table 451.08-2 is considered misaligned. Rejection Criteria is in absolute inches.

Table 451.08-2

Individual Dowel Bar Alignment Tolerances

Alignment Parameter	Acceptance Tolerance (inches)	Rejection Criteria (inches)
Horizontal Translation ^a	±2.0	±3.0
Longitudinal Translation ^b	±2.0	±4.0
Vertical Translation ^c	±1.0	± T/6
Horizontal Skew ^d	±0.60	±1.0
Vertical Tilt ^e	±0.60	±1.0
Cover ^f	-	2.5 minimum

- a. Horizontal Translation - the total difference, measured horizontally, between the actual dowel bar location and the plan required dowel bar location along the transverse contraction joint.
- b. Longitudinal Translation - the total difference, measured in the longitudinal direction, from the center of the transverse contraction joint to the actual dowel bar center. Also termed as "side shift".
- c. Vertical Translation - the total difference, measured vertically, between the centerline of the actual dowel bar location and the mid-depth of the slab. (T = Pavement Thickness in inches)
- d. Horizontal Skew - the total difference, measured from end to end of a dowel bar, of the dowel in the horizontal plane.
- e. Vertical Tilt - the total difference, measured from end to end of a dowel bar, of the dowel bar in the vertical plane.
- f. Cover - the least distance between the surface of embedded reinforcement and the outer surface of the concrete.



Perform a Joint Score Analysis conforming to CPTP Tech Brief *Best Practices for Dowel Placement Tolerances* (FHWA-HIF-07-021) for every joint. Joint Score is a measure of the combined effects of horizontal skew and vertical tilt. To calculate the Joint Score: calculate the Single Dowel Misalignment (SDM) by the square root of the sum of the squares of the Horizontal Skew and Vertical Tilt of each dowel in the joint; determine the weighing factor (W) for each bar from Table 451.08-3; sum the W values for every dowel in the joint and add one (1).

$$\text{Single Dowel Misalignment (SDM)} = \sqrt{(\text{Horizontal Skew})^2 + (\text{Vertical Tilt})^2}$$

Joint Score (JS) – Evaluated for a single transverse joint between adjacent longitudinal joint(s) and/or pavement edge(s) (i.e., a typical 12 ft [3.6 m] standard lane or up to 14 ft [4.3 m] widened lane), and calculated as:

$$\text{Joint Score (JS)} = 1 + \sum_{i=1}^n W_i$$

where:

- n = number of dowels in the single joint
 W_i = weighting factor (Table 451.08-3) for dowel i

Table 451.08-3

Weighting Factors in Joint Score (JS) Determination

Single Dowel Misalignment (SDM)	W Weighting Factor
$\text{SDM} \leq 0.6 \text{ in. (15 mm)}$	1
$(15 \text{ mm}) < \text{SDM} \leq 0.8 \text{ in. (20 mm)}$	2

$(20 \text{ mm}) < \text{SDM} \leq 1 \text{ in. (25 mm)}$	1
$(25 \text{ mm}) < \text{SDM} \leq 1.5 \text{ in. (38 mm)}$	5
$1.5 \text{ in. (38 mm)} < \text{SDM}$	10

Joint Score Trigger (JST) – A scaling of the Joint Score risk value to account for the actual number of dowels required in a single joint for pavement width other than 12 ft (3.6 m), calculated as:

$$\text{Joint Score Trigger (JST)} = 10 * \frac{\text{\# of Dowel Bars in Single Joint}}{12}$$

Include the Joint Score and Joint Score Trigger for every joint scanned in the report to the Engineer. Any joint with a Joint Score equal to or greater than the Joint Score Trigger is considered locked and rejectable.

3. Test Section

Prior to production use of a DBI slip form paver, perform at least a 500-foot (150 m) long test section for acceptance of the machine. Measure the alignment and location of each dowel bar in the test section using the MIT Scan-2. The test section will be considered acceptable if the following acceptance criteria are met:

1. Each Joint Score (JS) is less than Joint Score Trigger (JST);
2. Ninety percent (90%) of the dowel bars meet the Acceptance Tolerances of Table 451.08-2;
3. None of the dowels exceed the Rejection Tolerances of 451.08-2.

If the test section acceptance criteria is not met, use the data to refine the paving process and reduce/eliminate misalignments and mislocations. Modify, repair or replace any slip form paver with DBI that does not meet the acceptance criteria and perform another test section. Do not begin production paving until the slip form paver with DBI test section acceptance criteria is met.

Perform corrective action of all joints in the test section according to Section 5 below.

Perform a new test section for any new slip form paver with DBI that will be used for any contract item of work.

Perform a new test section at the beginning of every construction season; after major paver maintenance/repairs; at mobilization or remobilization to a project, for major concrete mix design changes or different concrete mix designs; and as required by Section 4 of this specification.

If the length of the section to be paved makes it unreasonable to perform the test section, scan all joints for conformance with the requirements of Section 2, Acceptance/Rejection. Correct any joints with dowels found to be rejectable or JS greater than JST according to Section 5, Corrective Action.

Determine during the test section if embedded tiebars are affecting the Rejection Tolerances and JS's. If the test section demonstration shows interference, exclude from the JS and JST calculations any dowel bar(s) closer than 12 in. (300 mm) in any direction to tiebars in the longitudinal joint(s). At the Engineer's discretion, establish the location of excluded dowels by another equivalent non-destructive method or by probing.

4. Paving Quality Control Testing (QCT) for Dowel Bar Inserters

When using the accepted slip form paver and DBI for any contract item of work, perform quality control scans with the MIT-Scan 2 equipment at the following minimum:

a. Measure the alignments and location for every 10th joint and calculate the JS and JST for each measured joint. Acceptable QCT is when all measures are within the acceptance tolerances in Table 451.08-2 and JS is less than JST.

i. When the daily QCT finds more than 10 percent of the joints scanned have dowels exceeding the acceptance tolerances of Table 451.08-2 but the JS is less than the JST, increase the scanning frequency to every 5th joint. Evaluate the paving process to reduce/eliminate misalignments and mislocations and continue to pave. The QCT frequency will revert back to every 10th joint when two consecutive days of scanning every 5th joint show no dowels exceeding the acceptance tolerances of Table 451.08-2 and all JSs are less than the JST.

ii. When QCT finds any individual dowel bars exceeding the rejection criteria of Table 451.08-2 or the JS is found to exceed the JST, the joint is considered to be locked and immediate investigation needs to be made as follows:

1. Scan joints in front and behind the locked joint location until five (5) consecutive joints in both directions are found with no dowel bars exceeding the rejection criteria of Table 451.08-2 and no JS is found to exceed the JST.

2. If the additional scanned joints show no additional dowel bars exceeding the rejection criteria of Table 451.08-2 and no JS exceeding the JST, evaluate equipment to determine what caused the original problem. Before continuing paving increase the frequency of QCT to conform to 4.a.i.

3. If the additional scanned joints show additional dowel bars exceeding rejection criteria of Table 451.08-2 or joints with a JS exceeding the JST, stop paving. Investigate to determine the cause of the dowel bar rejection issues and provide the causes and alternative corrections to the Engineer.

The Engineer will determine if the corrections will correct the problem and may allow paving to temporarily continue to validate if the corrections work. During any evaluation, scan all joints to determine if the corrections were successful. If successful, continue QCT scanning at the frequency of 4.a.i. If not successful, discontinue paving, repair or replace the slip form paver and DBI, and repeat the Test Section

b. All dowel bars found beyond rejection criteria of Table 451.08-2 or joints with a JS exceeding the JST require a corrective action proposal conforming to Section 5, Corrective Action.

Provide report formats as described in Section 1, MIT Scan-2 Equipment and Reporting.

5. Corrective Action

Submit a proposal for corrective action to the Engineer for any dowel that exceeds the rejection criteria in Table 451.08-2 or any joint that has a JS greater than the JST. As a minimum, include the following in the corrective action proposal:

1. Locations of rejectable dowels with identification information as described in Section 1, MIT Scan-2 Equipment and Reporting.

2. Locked joint identification information as described in Section 1, MIT Scan-2 Equipment and Reporting.
3. Proposed method of remediation for each identified location, including supporting documentation of the effectiveness of the means of proposed remediation.

The Department may not require corrective action for random dowels that exceed the rejection criteria of Table 451.08-2 depending on location; what alignment parameter was the cause for the rejection; and the frequency of the rejectable dowels.

The Department may not require corrective action for all JS exceeding the JST, if they are random in nature. Up to two (2) consecutive joints with a JS exceeding the JST may be accepted, provided that the adjacent three (3) joints before or after do not have dowels exceeding Table 451.08-2 rejection limits and have JS's less than the JST. The Department will require corrective action where there are more than two (2) consecutive joints with a JS exceeding the JST.

Do not proceed with any corrective action until the Engineer approves the proposed method(s) of correction.

C. Expansion Joints. Where a pressure relief joint is not provided adjacent to a bridge structure, construct expansion joints at the first two regularly spaced joint locations adjacent to the bridge approach slab on each side of the bridge. If the pavement is constructed in two or more separately placed lanes, construct the transverse expansion joints in a continuous line for the full width of the pavement and shoulders.

Construct expansion joints according to the standard construction drawings. Install the face of the expansion joint perpendicular to the concrete surface except when expansion joint is installed at a skewed bridge approach slab.

Use round, straight, smooth, steel dowels, and within 2 hours of placing concrete, coat the dowels with a thin uniform coat of new light form oil as a bond-breaking material to provide free movement. After coating the dowel, install a sleeve of metal or other approved material approximately 3 inches (75 mm) long, with crimped end, overlapping seams fitting closely around the dowel, and a depression or interior projection to stop the dowel a sufficient distance from the crimped end to allow 1 inch (25 mm) for longitudinal dowel movement with pavement expansion on one free end of each dowel. If approved by the Engineer, use other means to allow for 1 inch (25 mm) of expansion.

Punch or drill proper size dowel holes into the preformed expansion joint filler to assure a tight fit around each dowel.

Form a 1-inch (25 mm) wide and 1-inch (25 mm) deep opening on top of the expansion joint filler and seal this opening with 705.04 joint sealers.

D. Contraction Joints. For pavement less than or equal to 10 inches (225 mm) thick, saw contraction joints with a standard (water cooled diamond bladed) concrete saw to a minimum depth of one-fourth of the specified pavement thickness. For pavement greater than 10-inches (255 mm) thick, saw contraction joints to a minimum depth of one-third the specified pavement thickness. When cutting joints using a standard (water cooled diamond blade) saw assure the joint is $1/4 \pm 1/16$ -inch (6 ± 1.6 mm) wide when measured at the time of sawing.

When using the option of early-entry (dry cut, light weight) saws, only use saw blades and skid plates as recommended by the saw manufacturer for the coarse aggregate type being used in the concrete. Perform the early entry contraction joint sawing after initial set and before final set. Saw the contraction joint 2-1/4 to 2-1/2-inches (56 to 63 mm) deep. Ensure any early entry saw joints are approximately 1/8-inch (3 mm) wide at the time of sawing.

If the pavement is constructed in two or more separately placed lanes, install the joints continuous for the full width of the pavement. Saw the pavement with sawing equipment approved by the Engineer as soon as the saw can be operated without damaging the concrete. Provide saws with adequate guides, blade guards, and a method of controlling the depth of cut. After wet sawing, clean the joint using a jet of water. After dry sawing clean the joint using air under pressure. During sawing of contraction joints, maintain a standby saw in working condition with an adequate supply of blades.

E. Construction Joints. Install dowelled construction joints at the end of each day's work and when work is suspended for a period of more than 30 minutes.

Use dowels in transverse construction joints. Within 2 hours of placing concrete, coat the free half of all dowels with a thin uniform coat of new light form oil. Use an adequate bulkhead, with openings provided for dowel bars spaced as specified and shaped to fit the typical section of the pavement, to form a straight joint. During placing of concrete, hold dowels rigidly in position.

Locate construction joints at or between contraction joints. If located between contraction joints, construct the construction joint no closer than 10 feet (3 m) to the last contraction joint.

451.09

On page 261, **Replace** paragraph 3 and 4 with the following two paragraphs:

Texture the surface in the longitudinal or transverse direction using a broom to produce a uniform, gritty, texture. Immediately following the broom drag texture, tine the pavement in the longitudinal direction using an approved device that produces uniform tine spacing 3/4 inches wide (19 mm), 1/8 inch deep (3 mm) and 1/8 inch wide (3 mm). Do not tine within 3 inches (75 mm) of pavement edges or longitudinal joints. Only use equipment that will tine the full width of the pavement in one operation and uses string line controls for line and grade to assure straight tining texture.

Use transverse tining in small areas only with the approval of the Engineer. Use equipment that produces a random pattern of grooves [0.05 inch (1.3 mm) to 0.08 inch (2.0 mm) deep and 0.10 inch (3 mm) wide] spaced at 3/8 to 1-3/4 inches (10 to 45 mm), with 50 percent of spacings less than 1 inch (25 mm). Transverse tining may be used as an option for shoulders of main line or shoulders of ramps and gore areas. Tine all mainline shoulders or all ramp shoulders in a consistent direction if choosing this option. Request the use of transverse tining and identify the locations for approval at the preconstruction meeting.

499.07

On page 278, **Delete** the last sentence of the 1st paragraph of the section and insert the following between the 1st and 2nd paragraphs:

Prior to and during batching, maintain all coarse aggregates at a uniform moisture content.

For all slag aggregates or other aggregates with a reported absorption above 3.0 percent, only use aggregates with moisture contents at or above the ODOT-reported SSD for that aggregate as follows:

1. Use appropriate stockpile watering systems capable of raising and maintaining aggregate moisture at or above SSD. Sample and test the moisture content of the watered aggregate stockpiles from at least five (5) locations of the stockpile to ensure the stockpile is at or above SSD.
2. Have processes to maintain the aggregate stockpile at SSD until stockpile draining for SSD consistency has begun. Twenty-four (24) hours before batching concrete with the aggregate, shut down the stockpile watering process to allow drainage and to establish a uniform moisture content.
3. Run moisture content tests at least twice a day during concrete production. If the moisture content varies between tests by more than 1% increase the moisture testing frequency to assure correct batching information.
4. Provide the moisture content test results as part of all quality control plant ticket information.

499.10

On page 281, **Add** after the last paragraph of subsection 499.09 the following:

499.10 Class RCA. A concrete mix design using recycled concrete as a coarse aggregate conforming to the requirements of Supplement 1117. RCA is a stand-alone concrete mix design with no standard batching requirements.

501.04. A

On page 282, **Change** the first sentence in the 1st paragraph to:

After preparing the shop drawings for Items 513 and 515, submit the drawings to the Office of Materials Management at least 3 days before the pre-fabrication meeting, or before the start of fabrication on Item 513, UF Level.

501.04. A

On page 283, **Change** the 4th paragraph of this section to:

Prepare the shop drawings by or under direct supervisory control of an Ohio Registered Engineer having personal professional knowledge of *AASHTO Standard Specifications for Highway Bridges*, and Item 513 and 515. The Registered Engineer shall sign and date each drawing. Have a second Ohio Registered Engineer check, sign, seal and date each drawing, confirming that the drawings meet the intent of the plan (as designed). The preparer and checker shall be two different Engineers. Have all questions and comments addressed before submitting the shop drawings.

501.04. C

On page 283, **Change** the 2nd paragraph to:

Shop drawings shall be neatly and accurately drawn on 11 x 17 inch or 22 x 34 inch (280 x 432 mm or 559 x 864 mm) sheets. The shop drawings may be submitted electronically in pdf format or by mail .

501.05.

A. Projects with Railroad Involvement.

On page 284, After the second paragraph, after the sentence: Department acceptance is not required.

Add the sentence: The absence of Department acceptance does not supersede the Engineer's authority as defined in 105.01.

On page 284, After the second paragraph, after the sentence: Department acceptance of revised working drawings is not required.

Add the sentence: The absence of Department acceptance does not supersede the Engineer's authority as defined in 105.01.

B. Projects without Railroad Involvement.

On page 284, After the second paragraph, after the sentence: Department acceptance is not required.

Add the sentence: The absence of Department acceptance does not supersede the Engineer's authority as defined in 105.01.

On page 285, After the third paragraph, after the sentence: Department acceptance of revised working drawings is not required.

Add the sentence: The absence of Department acceptance does not supersede the Engineer's authority as defined in 105.01.

501.05. B.1

On page 285, **Change** the first sentence referring to Excavation Bracing to the following:

1. Excavation Bracing, impacting active traffic, or with an exposed height over eight feet, except when a complete design is already shown in the plans.

501.05. B.6

On page 288, **Replace** the entire subsection with the following:

When the total load applied to a structure during construction, (new or structure being rehabilitated), exceeds 75 % of the legal limit, (The Legal Limit is 80,000 lbs. or percentage thereof if posted), the load effects on the structure shall be analyzed based on the operating level calculated by the Load Factor Rating Method as given in the AASHTO Manual for Bridge Evaluation.

503.08

On page 293, in the 1st paragraph, **Replace** the first two sentences with the following:

Backfill all excavations made under this item with materials conforming to 203.02.R., except behind abutments and below the approach slabs use materials conforming to Item 203 Granular Material Type B.

503.09

On page 293, in the first paragraph, **Replace** the first sentence with the following:

After the requirements of Items 201, 202, and 203 have been met, the Department will measure excavation on a lump sum basis or by the number of cubic yards (cubic meters) as follows:

On page 294, **Delete** the following sentence: For abutment excavation quantities, the Department will include material removed above the bench (if any), in front of the vertical plane described in 503.09.C.1, and by the finished slope of the cut or embankment.

On page 294, **Delete** the following sentence: The Department will measure Unclassified Excavation on a lump sum basis when shown on the plans.

504.03

On page 295, After the first sentence, **Add** the sentence:

Thread each sheet pile with adjacent sheets. Use corner piles and interlocking connectors as necessary so that all sheets are interlocked.

507.03

On page 300, After Steel pile points, **Remove** the reference to 711.01.

507.04

On page 301, **Replace** the last paragraph in the subsection with the following:

After being driven, cut off the piles at the elevation and angle shown on the plans. Ensure that the actual pile embedment into the concrete is within 2 inches (50mm) of the embedment shown in the plans.

507.05

On page 301, After the first paragraph, **Add** the following:

To determine the minimum blow count for battered piles, divide the minimum blow count for vertical piles with the same ultimate bearing value by an efficiency factor (D) that is less than one. This will result in an increased minimum blow count for the battered piles. Compute the efficiency factor (D) as follows:

$$D = \frac{1 - (U \times G)}{(1 + G^2)^{0.5}}$$

Where:

U = Coefficient of friction

use 0.05 for double-acting air operated or diesel hammers,

use 0.1 for single-acting air operated or diesel hammers, and

use 0.2 for drop hammers.

G = Amount of batter (H/V; 1/3, 1/4, etc.)

507.06

On page 301, In part D., after the formula, **Change**

Where:

R= Ultimate bearing value in pounds (newtons).

507.09

On page 302, **After** the fourth paragraph, **add** the following paragraph,

Pile Points. When specified in the plans, select a product from the Department's approved list. Weld the pile points to the pile in accordance with AWS D1.5 or the manufacturer's written welding procedure supplied to the Engineer before the welding is performed. Submit a notarized copy of the mill test report to the Engineer.

507.13

On page 303, **Change** the first sentence to:

When the Contractor elects to prebore to facilitate the pile driving operation, include the cost for preboring in the unit price bid for piles driven.

508.03

On page 306, after the second paragraph in the section **Add** the following:

In forming Pier, Intermediate, or End Diaphragms for Prestressed or Post Tensioned Concrete members, do not place post installed anchors in these members. Properly brace diaphragm forms externally or use approved form tie inserts cast into these members.

511.01

On page 313, **Change** the first paragraph to:

This work consists of providing falsework and forming, furnishing, placing, consolidating, finishing and curing portland cement concrete. The work also includes diamond saw cutting longitudinal grooves into the surface of superstructure concrete. Construct falsework and forms as required in Item 508.

511.06

On page 314, **Make** the following changes:

511.06 Concrete Test Specimens. The Engineer will make test cylinders as follows:

A. Structures over 20-foot (6.1 m) span. A set of test cylinders from each 200 cubic yards (150 m³) of concrete, or fraction thereof that is incorporated into the work each day.

B. Structures of 20-foot (6.1 m) span or less. At least one set of test cylinders for each 50 cubic yards (35 m³) of concrete.

511.10

On page 315, After the first paragraph, **Add** the following:

Place and finish concrete to the lines and grades shown in the plans. Provide coverage over or around reinforcing steel as described in 509.04.

Conform to the following tolerances from plan dimensions:

Deviation from plumb for exposed surfaces	± ¾ inch (19 mm)
Vertical alignment (Deviation from a line parallel to the grade line)	± ½ inch in 20 feet (13 mm in 6 m)
Longitudinal alignment (Deviation from a line parallel to the centerline or baseline)	±½ inch in 20 feet (13 mm in 6 m)
Width dimensions of walls for exposed surfaces	±½ inch (13 mm)
Bridge Slab thickness	±¼ inch (6 mm)
Elevations of beam seats	±1/8 inch (3 mm)
Slope, Vertical Deviation from Plane	±0.2%
Slope, Horizontal Deviation from Plane	±0.4%

Change the first sentence of the seventh paragraph to:

Before placing concrete for backwalls above the approach slab seat with steel expansion joints, backfill the abutments to within 2-foot(0.6m) of the bridge seat elevation, erect structural steel or prestressed concrete beams and place superstructure concrete in the adjacent span.

511.12

On page 319, **Revise** the second paragraph to the following:

Form construction joints using bulkheads with keyways. Locate keyways clear of exposed surfaces by approximately one-third the thickness of the joint. Construct transverse or longitudinal construction joints in deck slabs with keys located between the reinforcing mats and having a depth of ¾ inch (19 mm).

511.20

On page 324 and 325, **Replace** the section with the following:

511.20 Bridge Deck Grooving. After Class S concrete has cured, saw longitudinal grooves into the deck.

After water curing Class HP concrete and either before applying curing compound or some period after applying curing compound and before opening the bridge to traffic, saw longitudinal grooves into the deck. If sawing grooves after applying the curing compound, and concrete deck is less than 30 days old, reapply the curing compound after removing standing water, within 12 hours after sawing grooves in the deck.

The grooving of both Class S concrete and Class HP concrete shall be performed as specified below.

Use diamond blades mounted on a multi blade arbor on self-propelled machines that were built for grooving of concrete surfaces. The groove machines shall have depth control devices that detect variations in the pavement surface and adjust the cutting head height to maintain the specified depth of the groove. The grooving machines shall have devices to control alignment. Do not use flailing or impact type grooving equipment. More than one size grooving machine may be required in order to saw the grooves as specified.

Provide an experienced technician to supervise the location, alignment, layout, dimension, and grooving of the surface.

Saw grooves parallel to the bridge centerline in a continuous pattern across the surface. Begin and end sawing 9 to 12 inches (220 to 300 mm) from any device in place in a bridge deck, such as scuppers or expansion joints. Stop sawing a minimum of 2 inches (50 mm) to a maximum of 24 inches (600 mm) from skewed expansion joints. Maintain a clearance of a minimum of 2 inches (50 mm) and a maximum of 4 inches (100 mm) from the grooves to longitudinal joints in the deck. Maintain a minimum clearance of 9 inches (220 mm) to a maximum of 30 inches (750 mm) clearance between the grooves and the curb or parapet toe. However, at no point shall un-grooved portions of deck extend beyond edge line and into the temporary or permanent travelled lanes. Saw grooves in a uniform pattern spaced at $\frac{3}{4}$ inch minus $\frac{1}{4}$ inch or plus 0 (19 mm minus 6 mm or plus 0). Saw grooves approximately 0.15 inches (4 mm) deep and 0.10 inches (3 mm) wide.

For staged, or phase bridge deck work, saw the grooves parallel to the final, permanent bridge centerline. If the different stages or phases of the bridge deck work occur within one construction season, any stage opened to traffic shall receive an interim coarse broom finish during placement, then saw the longitudinal grooves after the final stage. The interim broom finish will not be allowed as a surface texture when opened to traffic over a winter season. Saw longitudinal grooves in the deck prior to opening to traffic for a winter season.

For bridge decks that widen from one end to the other, saw the longitudinal grooves parallel to the centerline of the roadway. On the side of the bridge that widens, saw the longitudinal grooves to follow the edge line. Saw longitudinal grooves in the gore areas, avoiding the overlapping of grooves.

At the beginning of each work shift, furnish a full complement of grooving blades with each saw that are capable of cutting grooves of the specified width, depth, and spacing.

If during the work, a single grooving blade on a machine becomes incapable of cutting a groove, continue work for the remainder of the work shift. The Contractor is not required to cut the groove

omitted because of the failed blade. Should two or more grooving blades on a machine become incapable of cutting grooves, cease operating the machine until it is repaired.

Continuously remove all slurry and remaining residue from the grooving operation and leave the deck surface in a clean condition. Prevent residue from grooving operations from flowing across shoulders or across lanes occupied by public traffic or from flowing into gutters or other drainage facilities. Remove solid residue before the residue is blown by passing traffic or by wind.

Provide water as necessary to saw grooves according to this subsection.

511.22

On page 325, **Revise** the first paragraph to the following:

After completing all curing operations and allowing the deck to thoroughly dry, seal the following areas with a high molecular weight methacrylate (HMWM) sealer. Flood the areas and squeegee off the excess material as specified in Item 512 before opening the deck to traffic:

512.03. E

On page 329, **Replace** the entire subsection with the following:

E. Surface Condition. Apply sealers only to surfaces which are dry, free from dust, dirt, oil, wax, curing compounds, efflorescence, laitance, coatings and other foreign materials. Visually inspect all surfaces before applying sealer. Remove all structurally unsound surfaces and weak sections.

Perform all concrete patching prior to surface profiling. Perform concrete patching on areas identified by the Engineer according to 519. Cure repaired areas for at least seven (7) days.

Air dry all concrete surfaces for at least ten (10) days after completion of required curing.

For accelerated cure of precast concrete, obtain the required 28 day strength and air dry the surfaces at least ten (10) days after completing accelerated cure.

512.03. F

On page 329, **Replace** the title of the subsection with the following:

F. Surface Preparation and Profiling

512.03. F

On page 330, **Add** the following sentence to the end of Section F:

Ensure that all wastes generated by the surface preparation operation are managed in accordance with 107.19.

512.03. G

On page 330, **Replace** the entire subsection with the following.

G. Application and Coverage. Apply the sealer between twelve (12) hours and 48 hours after surface preparation by water blasting methods. Apply the sealer within 48 hours after surface preparation by abrasive blasting methods. Do not apply sealer if rain is anticipated within six (6) hours after application. Clearly mark where the sealer application stops if not continuous.

512.03

On page 332, **Add** new subsection:

N. Superintendent. In addition to the requirements of 105.06, the Superintendent must successfully complete a Sealing of Concrete Surfaces pre-qualification training course offered by the Department. The course must have been completed within the past four years and an individual course certificate must have been received by the Superintendent. Present certificate to the Engineer prior to beginning the sealing of concrete surfaces work. Work will not be permitted to begin until after the Superintendent provides a valid course certificate.

512.08

On page 338, after the fourth paragraph of the General Section **add**:

Do not apply waterproofing fabric or membranes over attachments and hardware. Seal the discontinuities in waterproofing with Asphalt, 702.06, or hot applied joint sealer, 705.04.

Change the first sentence of the **Primer Coat Section** to:

Apply the primer coat at the rate of 0.10 to 0.20 gallon (0.50 to 1.00 L) of asphalt material per square yard (square meter).

On page 340, **Make** the following changes:

Change the first paragraph of the **Type 3 Membrane Waterproofing** subsection to:

This type of waterproofing consists of an primer coat conforming to 705.04 and a waterproofing membrane consisting of a high density asphalt mastic between two layers of polymeric fabric conforming to 711.29. The application of this product shall follow the Manufacturer's written recommendations, which shall be provided to the project.

After the last paragraph of the **Type 3 Membrane Waterproofing** subsection, **Add** the sentence:

If asphalt pavement is to be placed directly over the water proofing membrane, first apply tack coat as specified in 407 without damaging the membrane.

513.01

On page 342, **Change** the first paragraph to:

This work consists of preparing shop drawings, furnishing and fabricating structural steel members, nondestructive testing, fabricator performed quality control, documentation, cleaning, shop coating, and erecting structural steel and other structural metals. Prepare shop drawings and erect structural steel according to Item 501 and the additional requirements below. Shop painting shall conform to Item 514. The work also includes any work to move existing steel structures to the plan location, making necessary repairs and alterations, and connecting or joining new and old construction.

513.03

On page 343, **Revise** the section as follows:

Under the Level UF, Description of Capabilities, change the last sentence to: Quality assurance of shop drawings, material test reports, and inspection according to Supplement 1078.

Under the Level 1, Description of Capabilities, change the last sentence to: Quality assurance of shop drawings, material test reports, and inspection according to Supplement 1078.

Under the Level 2, Description of Capabilities, change the last sentence to: Quality assurance of shop drawings, material test reports, and inspection according to Supplement 1078.

Under the Level 3, Description of Capabilities, change the last sentence to: Quality assurance of shop drawings, material test reports, and inspection according to Supplement 1078.

Under the Level 4, Description of Capabilities, change the last sentence to: Quality assurance of shop drawings, material test reports, and inspection according to Supplement 1078.

Under the Level 5, Description of Capabilities, change the last sentence to: Quality assurance of shop drawings, material test reports, and inspection according to Supplement 1078.

Under the Level 6, Description of Capabilities, change the last sentence to: Quality assurance of shop drawings, material test reports, and inspection according to Supplement 1078.

513.04

On page 343, **Delete** the following two sentences: Item 501 includes general information pertaining to structural steel fabrication and erection. Shop painting shall conform to Item 514.

513.07

On page 345, **Change** the first sentence in the paragraph to:

After providing the notice and schedule required by 513.04 and at least 3 days after the Department receives shop drawings, conduct a pre-fabrication meeting at the fabricator's facilities, or another location agreed to by all parties.

513.22

On page 355, In the third paragraph, **Add**:

For galvanized structures with welded shear connectors, remove the galvanic coating by grinding at each connector location prior to welding.

513.25. B.

On page 358, in the 5th paragraph, **Revise** the last sentence to: If the fabricator's quality control plan is acceptable to the Department and additional processing does not produce a potential for cracking, the Department may allow the Contractor to perform MPI before complete welding.

514.02

On page 362, **Change** the last sentence at the end of the second paragraph to:

The Contractor is responsible for ensuring the compatibility of the intermediate and finish coats with the prime coat.

514.04. A

On page 363, **Change** the first sentence of the fifth paragraph to:

The quality control specialist will be immediately removed from their duties as the quality control specialist and disqualified from future duties as the quality control specialist if any quality control failure occurs.

514.04. B

On page 365, after the Table, **Add** the following:

Provide signed documentation of inspection, testing, conditions and material information to the Engineer on the following ODOT forms, or forms with the equivalent information.

Dry Film Thickness Readings for QCP #5 Prime, #8 Intermediate, and #10 Finish Coats..CA-S-2

QCS Inspection Documentation Sign Off for QCP's.....CA-S-7

QCS & Visual Standards Information for QCP #3 Abrasive Blasting Test Section.....CA-S-11

QCP #1 Solvent Cleaning & QCP #2 Grinding Flange Edges.....CA-S-12

QCP #3 Abrasive Blasting.....CA-S-13

QCP #4 Disposal of Hazardous/Non-Hazardous Waste.....CA-S-14

QCP #5 Prime Coat Application.....CA-S-15

QCP #6 Grinding Fins, Tears and Slivers & QCP #9 Caulking.....CA-S-16

QCP #8 Intermediate & QCP #10 Finish Coat Application.....CA-S-17

514.05

On page 365, In the first paragraph, **Replace** the third sentence with the following:

The Contractor and fabricator shall maintain all testing equipment in good working order, and provide documentation or certification of calibration from the manufacturer.

514.05.C

On page 366, in Section C., **Change** the first paragraph to:

C. One SSPC-PA2 Type 2 (electronic) non-destructive coating thickness gage, with a set of calibration thickness foils, (shims), and two sets of National Institute of Standards & Technology calibration plates. The first set of calibration plates shall be 1.5 to 8 mils (38 to 200 μm), Model No. 1362b, and the second set shall be 10 to 25 mils (250 to 625 μm), Model No. 1363b.

514.05. D

On page 366, **Replace** the subsection with the following:

One Sling Psychrometer including Psychrometric tables, (or comparable electronic or digital equipment for the measurement of dew point, accurate within 2 °F (1 °C) and within 1% relative humidity).

514.10

On page 367, **Change** the title of section **514.10 Inspection Access** to **514.10 Inspection Access and Lighting**

In the first paragraph, after the first sentence, **add** the two sentences:

Provide artificial lighting as necessary to supplement natural light with a minimum of 30 foot candles (325 LUX) at the surface of the steel for inspection, cleaning and painting. Prevent glare that interferes with traffic, workers and inspection.

514.13. C

On page 370, **Change** the 4th paragraph to:

For field blasting, use a recyclable steel grit, or a recyclable natural mineral, low dusting abrasive. Do not use silica sands, mineral slags, and other types of non-metallic abrasives that contain more than 0.5 percent free silica, by weight, have a chlorides salts content more than 25 ppm, and contain any organic material. For shop blasting, use an abrasive that produces an angular profile. All abrasives shall provide a profile from 1.5 to 3.5 mils (40 to 90 μm) as determined by replica tape according to ASTM D 4417, Method C. Adjust the abrasive size, blast hose nozzle pressure or other means in order to provide the 1.5 to 3.5 mil profile. Clean the abrasive of paint, chips, rust, mill scale, and other foreign material after each use and before each reuse. Use equipment specifically designed for cleaning the abrasive.

514.17. A

On page 375, in the 1st paragraph, **Change** the 3rd sentence to:

Unless otherwise shown on the plans or specified below, apply paint to provide the specified coating thickness by brush and spray methods.

514.17.C

On page 375, In the 1st paragraph, **Change** the 1st sentence to:

Apply a prime coat to all structural steel surfaces by brush or spray methods, including insides of holes, behind stiffener clips and contact surfaces of connection, and splice material that is to be fastened with bolts in the shop or field.

514.17.E

On page 376, **Change** the 1st paragraph to:

Apply the paint to produce a smooth coat. For field painting, to ensure coverage, apply wet stripe coats using brushes, daubers, small diameter rollers or sheepskins to all edges, outside corners, crevices, welds, rivets, bolts, nuts and washers in addition to the spray application of each individual coating.. Apply additional paint as necessary to produce the required coating thickness

514.17.F

On page 376, **Delete** the last sentence of the 3rd paragraph which states;

To ensure coverage, spray all bolts and rivet heads from at least two directions or apply the paint to bolts and rivet heads using a brush.

514.19

On page 378, **Revise** the first paragraph to the following:

(QCP #9). After the intermediate coat cures and before applying the finish coat, caulk gaps or crevices greater than 1/8 inch (3 mm). Allow for the cure of the caulk, per the Manufacturer's recommendations prior to the application of the finish coat.

514.20

On page 379, **Replace** the paragraph that begins: "Certified test data proving..." with the following:

Certified test data proving that the excessive thickness will adequately bond to the steel when subjected to thermal expansion and contraction. The thermal expansion and contraction test shall take place over five cycles of a temperature ranges from -20° to 120 °F (-49° to 49°C). After the thermal contraction and expansion cycles have taken place, the tested system shall be subjected to pull off tests and the results compared to the results of pull off tests that have been performed on a paint system with the proper thicknesses.

Perform the adhesion tests per ASTM D 4541 Type IV. Document the preparation methods for the panels, including profile and level of cleanliness. Document the application methods, conditions and if any thinner, (percentage), was used. Test the panels according to the following:

1. Lightly sand the coating surface and aluminum dolly, and apply a quick set adhesive. Document the type of adhesive.

2. Allow adhesive to cure overnight.

3. Scribe the coating and adhesive around the dolly before testing.

4. Make a minimum of 4 trials to failure, and report the 4 trials. Reject trial if fracture occurs at the primer-substrate interface or pressure at failure is less than 400 pounds per square inch (2.8 MPa).

a. Describe the test specimen as substrate A, upon which successive coating layers B, C, D, etc. have been applied including the adhesive Y which secures the dolly Z to the topcoat.

b. Designate cohesive failures by the layers within which they occur as B, C, etc., and the percent of each.

c. Designate adhesive failures by the interfaces at which they occur as A/B, B/C, C/D, etc, and the percent of each.

In addition to the certified test results, the Contractor shall provide the Office of Construction Administration a written statement from the paint manufacturer stating that the excessive thickness is not detrimental.

515.01

On page 383, **Change** the first paragraph to:

515.01 Description. This work consists of preparing shop drawings, furnishing and manufacturing prestressed concrete bridge members, testing, fabricator performed quality control, documentation, shop coating, and handling, transporting, storing, and erecting prestressed concrete bridge members. Prepare shop drawings and erect prestressed concrete bridge members, according to Item 501 and the additional requirements specified below. Shop coating shall conform to Item 512.

515.07

On page 385, **Change** the first sentence in the paragraph to:

At least 3 days after the Department receives shop drawings, conduct a pre-fabrication meeting at the fabricator's facilities, or another location agreed to by all parties.

515.15

On page 388, Revise B to: B. W/c ratio (maximum = 0.40)

515.15. A

On page 388, **Revise** the subsection to the following:

A. Test data showing the mix achieves the required 28-day strength when cured by methods used for member fabrication. The strength of the concrete for the mix design approval and during production is determined using sets of two – 6" x 12" cylinders or three – 4" x 8" cylinders.

515.19

On page 393, in the sixth paragraph, **Delete** the following sentence:

If erection of prestressed members requires placing cranes or launching devices on previously erected spans, submit erection procedure for approval according to Item 501.

516.04

On page 395, **Add** the following:

Neoprene Sheeting705.13
Non-Shrink, Non-Metallic Grout705.20

516.05

At the end of the second paragraph, **Add** the following:

For Integral and Semi-Integral Abutment Expansion Joint Seals, install a 3 foot wide neoprene sheet for waterproofing of the backside of the joint between the integral backwall and the bridge seat at locations shown in the plans. Secure the neoprene sheeting to the concrete with 1 1/4" x #10 gage (length x shank diameter) galvanized button head spikes through a 1 inch outside diameter, #10 gage galvanized washer. Maximum fastener spacing is 9 inches. Use of other similar galvanized devices, which will not damage either the neoprene or the concrete, will be subject to the approval of the Engineer.

Center the neoprene strips on all joints. For horizontal joints, secure the horizontal neoprene strip by using a single line of fasteners, starting at 6 inches, +/-, from the top of the neoprene strip. For the vertical joints secure the vertical neoprene strip by using a single vertical line of fasteners, starting at 6 inches, +/-, from the vertical edge of the neoprene strip nearest to the centerline of roadway.

For vertical joints, install 2 additional fasteners at 6 inches, center to center, across the top of the neoprene strip on the same side of the vertical joint as the single vertical row of fasteners is located. The vertical neoprene strips shall completely overlap the horizontal strips. Lap lengths of the horizontal strips that are not vulcanized or adhesive bonded, shall be at least 1 foot in length, or 6 inches in length if the lap is vulcanized or adhesive bonded. No laps are acceptable in vertically installed neoprene strips. The neoprene sheeting shall be 3/32" thick general purpose, heavy-duty neoprene sheet with nylon fabric reinforcement.

516.07

On page 396, in the fourth paragraph, after the sentence: "Set elastomeric bearing pads directly on the concrete surface." **Add**:

If the beams seats are sealed with an epoxy or non-epoxy sealer prior to setting the bearings, do not apply sealer to the concrete surfaces under the proposed bearing locations. If these locations are sealed, remove the sealer to the satisfaction of the Engineer prior to setting the bearings. The Department will not pay for this removal.

On page 396, in the fifth paragraph, after the sentence: "Position rockers, elastomeric bearing, and rollers so that, when the completed bridge is at 60 F (16 C), the rockers and elastomeric bearings are vertical and the rollers are centered on the base." **Add:**

If the steel is erected at an ambient temperature higher than 80°F or lower than 40°F and the bearing shear deflection exceeds 1/6 of the bearing height at 60° F (+/-) 10° F, raise the beams or girders to allow the elastomeric bearings to return to their undeformed shape at 60° F (+/-) 10° F.

On page 396, in the 6th paragraph, change the third sentence to: Accurately set anchor bolts in the holes and embed the anchor bolts in non-shrink, non-metallic grout.

On page 396, in the last paragraph, after the sentence: "Permanently fasten bearing devices to the abutments, steel beams, or girders after backfilling the abutments to within 2 feet (0.6m) of the top of the bridge seat." **Add:**

Where the load plate of an elastomeric bearing is to be connected to the structure by welding, control welding so that the plate temperature at the elastomer bonded surface does not exceed 300° F as determined by use of pyrometric sticks or other temperature monitoring devices.

518.05

On page 400, **Replace** the entire subsection with the following:

518.05 Porous Backfill.

Place porous backfill as shown on the plans. When not shown on the plans, place backfill at least 2 feet (0.6 m) thick behind the full length of abutments, wing walls, and retaining walls. Measure the thickness of porous backfill normal to the abutment or wall face. The Contractor may leave undisturbed rock or shale within 2 feet (0.6 m) of the abutment or wall. Place 2 ft³ (0.23 m³) of bagged No. 3 aggregate at each weep hole to retain the porous backfill. Compact porous backfill according to Item 603.11 D.

518.10

On page 401, After the first sentence, **Add:** The Department will include bagged aggregate with porous backfill for payment .

519.03

On page 402, **Change** the third paragraph to:

If working around reinforcing steel, avoid damaging or debonding any reinforcing steel that is uncorroded and completely embedded in sound concrete. Ensure no shattering of the concrete, beyond the area to be patched. Adequately support reinforcement that is loose, and tie it back into place. Replace reinforcement damaged during removing concrete.

523.02

On page 409, **Replace** the first and second paragraph with the following:

Perform dynamic tests on a minimum of two piles. Perform signal matching analysis of the dynamic test data on at least one of the two test piles. Perform the test according to ASTM D 4945 to determine driving requirements to achieve the required ultimate bearing values for the piles to be installed in the structure.

Perform restrike tests after piles have been driven and a minimum time specified in the plans has elapsed. When performing a restrike, warm the hammer before restriking the pile by applying at least 20 blows to another pile. Each restrike consists of performing dynamic testing on two piles and performing a signal matching analysis on one of the two piles tested.

523.03

On page 409, **Change** the second sentence in the paragraph to:

Supply personnel with an Advanced Master, or Expert Level Certification in High Strain Dynamic Pile Testing (HSDPT) from either Foundation QA or the Pile Driving Contractors Association (PDCA) to operate this equipment.

523.04

On page 410, **Replace** the section with the following:

Perform the dynamic test and signal matching analysis and immediately provide the Engineer driving criteria for any piles to be driven within the next 48 hours. Within 48 hours after performing the dynamic pile test or restrike tests, supply the Engineer with a written report confirming driving requirements for piles represented by the test. Include in the report, the required blow count for:

A. The different strokes of the ram at 6-inch (150 mm) intervals within the expected range of operation as determined by a wave equation analysis, when open ended diesel hammers and drop hammers are used.

B. The selected bounce pressures when closed end diesel hammers are used.

C. The operating air pressure and stroke when an air operated hammer is used.

D. The selected output energy or stroke when a hydraulic hammer is used.

Also include in the report a minimum depth of penetration if applicable.

Submit an electronic version of the report and data files from the testing and analysis to the Office of Structural Engineering.

526.04

On page 419, **Replace** the entire subsection with the following:

526.04 Placing and Sampling Concrete. Immediately before placing concrete according to Item 511.07, thoroughly moisten the subgrade or subbase with water in the amount and manner directed by the Engineer. When the bridge superstructure and the approach slab require QC/QA, make at least one set of test cylinders for each 50 cubic yards (35 cubic meters) of concrete. Include the results of the cylinders into the LOT for the 511 superstructure item.

526.08

On page 420, **Revise** the 1st paragraph to:

The Department will calculate the final adjusted payment per 511 and Supplement 1127. The Department will pay for accepted quantities at the contract price as follows which includes all concrete, curbs, reinforcing steel, dowels, joints, and other materials:

601

On page 421, **Replace** Item 601 with the following:

ITEM 601 SLOPE AND CHANNEL PROTECTION

- 601.01 Description**
- 601.02 Materials**
- 601.03 General Construction**
- 601.04 Riprap**
- 601.05 Grouted Riprap or Rock**
- 601.06 Crushed Aggregate Slope Protection**
- 601.07 Concrete Slope Protection**
- 601.08 Dumped Rock Fill**
- 601.09 Rock Channel Protection**
- 601.10 Detention Basin, Infiltration Basin, or Water Quantity Swale Aggregate**
- 601.11 Paved Gutter**
- 601.12 Tied Concrete Block Mat**
- 601.13 Articulating Concrete Block Revetment System**
- 601.14 Method of Measurement**
- 601.15 Basis of Payment**

601.01 Description. This work consists of the excavation for and the construction of gutters, riprap, concrete, grouted items, tied concrete block mats, articulating concrete block revetment systems, crushed aggregate, or rock items for protecting slopes and channels.

Use removed or excavated materials in the Work when the material conforms to the specifications; if not, then recycle or dispose of the material according to 105.16 and 105.17.

601.02 Materials. Furnish materials conforming to:

Curing	451 or 705.07 Type 1
Concrete, Class C.....	499, 511
Water for grout	499.02
Reinforcing steel.....	509.02
Cement for grout.....	701
Structural Backfill Type 3	703.11
Sand for grout.	703.03
Rock and Aggregate Materials	703.19
Brick and blocks	704
Preformed expansion joint.....	705.03
Joint sealer	705.04
Filter fabric, Type B	712.09

Provide steel filter fabric securing pins with washers for securing filter fabric. Use a steel washer having an outside diameter not less than 1 1/2 inches (38 mm). Use securing pins at least 18 inches (0.5 m) long and at least 3/16 inch (5 mm) in diameter that are pointed at one end and fabricated with a head to retain the steel washer.

Ensure tied concrete block mats and articulating concrete block revetment systems are held together by galvanized steel wire, HDPE mesh, stainless steel wire, or any material that has a service life of 75 years or more as approved by the Office of Hydraulic Engineering.

601.03 General Construction. Cure gutters, concrete slope protection, and grouted riprap according to Item 451, except apply all the membrane cures at the rate of not less than 1 gallon per 200 square feet (1 L/5 m²) of surface.

Mix and place all concrete according to Item 511. Finish to produce a sandy texture.

601.04 Riprap. Construct riprap according to one of the following four alternatives unless specifically itemized in the Contract. The Contractor may elect to use a different alternative at each location on the project.

A. Provide Flat Stones or Broken Concrete. Ensure that individual pieces are roughly rectangular in cross-section with a minimum volume of 1/3 cubic foot (0.01 m³) and a minimum thickness of 3 inches (75 mm). Place individual pieces by hand in courses and so that the pieces overlap the joints in the course below. Place riprap with the flat surfaces roughly perpendicular to the slope and in contact with the courses immediately below and above. Fill spaces between larger pieces with spalls that are rammed into place to present an even and tight surface, pleasing in appearance and varying not more than 3 inches (75 mm) from that shown on the plans. When required by the plans, fill riprap with grout. Compact the backing as riprap construction progresses. Ensure that the thickness of the riprap, measured perpendicular to the slope, is not flatter than 9 inches (230 mm) and averages not flatter than 12 inches (0.3 m).

Approved manufacturers are on file with the office of Materials Management. For approval, manufacturers will submit product information to the Office of Hydraulic Engineering.

B. Provide Articulating Concrete Block Revetment System. Ensure articulating concrete block revetment conform to 712.1-3. Install according to the manufacturer's recommendations.

C. Construct Concrete Riprap Using Cloth or Burlap Bags. After soaking the bags with water, fill them with approximately 2/3 cubic foot (0.02 m³) of concrete and place the bags by hand to the limits on the plans. Provide bags with approximate dimensions of 6 × 12 × 16 inches (150 × 300 × 400 mm).

Stack the bags on the slope to ensure a minimum of 1/3 cubic yard (0.3 m³) of concrete for each square yard (square meter) of riprap in place as measured along the slope.

Tie the open end of each bag and fold the tie under the bag. Place each tie or fold so that it overlaps the joint in the lower layer. After placing, pierce each bag in the lower layer to allow some concrete to flow out and bond with the top overlying layer.

Stretchers are bags placed with the long length parallel to the streambed flow. Headers are bags placed with the long length perpendicular to the streambed flow. A layer runs horizontally at approximately the same elevation perpendicular to the protected slope grade.

If the slope is 1.5:1 or steeper, make the bottom layer with two bags laid as stretchers. Place the next overlying layer as a header. Place the rest of the overlying upslope layers as stretchers.

If the slope is flatter than 1.5:1, make the bottom layer with two bags as stretchers. Place all remaining layers as headers.

Push or drive No. 4 (No. 13M) reinforcing bars approximately 18 inches (0.5 m) long and spaced approximately 12 inches (0.3 m) apart through the top three layers. When required by the plans, fill voids with grout.

D. Construct a 6-inch (150 mm) Reinforced Concrete Slab. Reinforce the slab approximately midway between the top and bottom of the slab with steel bars or fabricated reinforcement equivalent to No. 3 (No. 10M) round bars, spaced at 24-inch (0.6 m) centers in two directions, or wire fabric according to the standard construction drawing for pavement reinforcing. The Contractor may use formed construction joints. Extend reinforcement through all formed construction joints. Include cutoff walls as shown on the plans in the unit price bid for reinforced concrete slab.

601.05 Grouted Riprap or Rock. When specified, grout in place riprap cloth bags, riprap burlap bags, flat stones, precast blocks, broken concrete, rock, or tied concrete block mats. Make the grout by mixing one part portland cement, three parts sand, and enough water to allow the grout to flow into the joints and cracks.

Prepare the grout in a mixing machine of an approved design and equipped with an accurate graduated regulating device for controlling the amount of water in each batch. Accurately measure and proportion the quantities for each batch, and ensure that the quantities are exactly sufficient for one or more sacks of cement.

Immediately before applying grout, thoroughly wet all surfaces. Place the grout, filling all the joints or voids. Do not add water to the grout after it has been placed.

601.06 Crushed Aggregate Slope Protection. Furnish material conforming to 703.19. Place the material on the filter fabric so that the surface is flush with the embankment slopes. Use a thickness of 12 inches (300 mm) unless a different thickness is specified. Extend the aggregate from the face of the abutments down to the toe of the slope or to normal water elevation, and a minimum of 3 feet (1 m) beyond the outer edges of the superstructures or as shown on the plans.

601.07 Concrete Slope Protection. Construct a concrete slab, 6 inches (150 mm) thick, extending over the embankment area under a bridge from the face of the abutment down to the toe of the slope and extending a minimum of 3 feet (1 m) beyond the outer edges of the superstructure or as shown on the plans. Thicken the bottom 3 feet (1 m) of the concrete slab from 6 to 18 inches (150 to 460 mm) to provide resistance to sliding.

Where pier columns extend through the slab, place 1-inch (25 mm) preformed expansion joint material around the columns and for the full thickness of the slab.

Divide the surface into an equally spaced block grid pattern at approximately 4 to 5-foot (1.2 to 1.5 m) intervals. Make the block grid pattern with one direction horizontally at a constant elevation or as directed by the Engineer, and the other direction parallel to the superstructure centerline, skewed, or as directed by the Engineer. Saw or form the block grid pattern to make joints at a depth of not less than one-fourth the thickness of the slab and approximately 1/8 inch (3 mm) wide.

601.08 Dumped Rock Fill. Furnish material conforming to 703.19. Dump larger pieces at the outer face and smaller pieces in the inner surface of the protected area. Ensure a reasonably smooth and continuous surface conforming to the slope lines shown on the plans. Avoid concentration of fines and small pieces at any location in the completed dumped rock fill material. When required by the plans fill all voids with grout.

601.09 Rock Channel Protection. Furnish material conforming to 703.19. When specified with a filter, provide a filter consisting of filter fabric or a 6-inch (150 mm) bed of aggregate conforming to 703.19. When placing rock, exercise reasonable care to ensure that the finished surface of the protected channel conforms to the channel cross-sections shown on the plans.

If filter fabric is used, prepare the surface to receive the fabric to a relatively smooth surface, free of obstruction and debris. With the long dimension parallel to the flow direction, loosely place the fabric without wrinkles and creases. Where joints are necessary, provide a 12-inch (0.3 m) minimum overlap, with the upstream strip overlapping the downstream strip. Place securing pins with washers at a minimum distance apart of 2 feet (0.6 m) along the joints and at a minimum distance apart of 5 feet (1.5 m) everywhere else. When required by the plans fill all voids with grout.

601.10 Detention Basin or Infiltration Basin. For detention basin or infiltration basin aggregate, furnish material conforming to Structural Backfill Type 3 at 6 inches (150 mm) thick. Use a filter consisting of filter fabric. When placing aggregate, exercise reasonable care to ensure that the finished surface of the basin conforms to the details shown in the plans.

601.11 Paved Gutter. Mix and place concrete paved gutters according to Items 499 and 511 and to the dimensions and shape shown on the plans or the standard construction drawing.

When gutter constructed under this item is to be tied to an existing concrete base, pavement, or other rigid structure, match the type and location of the joints in the gutter with those in the adjoining pavement.

When gutter constructed under this item is not tied to an existing concrete base, form impressed joints using a device or bar shaped to the gutter cross-section. Make the impression before initial setting of the newly placed concrete. Remove the device or bar as soon as the concrete is in such condition to retain its shape when the bar or device is removed. Form an impressed joint that is 3/8 inch (10 mm) wide at the surface; 1/4 inch (6 mm) wide at the bottom; and a depth equal to one-third the thickness of the concrete. Edge the joints to a radius not greater than 1/4 inch (6 mm). Until the filler is placed, protect the joint from dirt or foreign matter. Fill the impressed joints in such a manner to confine the material to the joint and in no way mar the surface.

Compact the subgrade for all paved gutters according to 204.03. When required by the plans fill all voids with grout.

Approved manufacturers are on file with the Laboratory. For approval, manufacturers will submit product information to the Office of Hydraulic Engineering.

601.12 Tied Concrete Block Mat. When specified, use Tied Concrete Block Mat Type ____ conforming to 712.12 as shown on the plans. Place directly on the filter fabric. Install per the manufacturer's recommendation. Tied Concrete Block Mats are approved by the Office of Hydraulic Engineering. Furnish products according to the Departments Qualified Products List (QPL).

601.13 Articulating Concrete Block Revetment System. When specified, use Articulating Concrete Block Revetment System Type _ conforming to 712.13 as shown on the plans. Install per the manufacturer's recommendation. Articulating Concrete Block Revetment Systems are approved by the Office of Hydraulic Engineering. Furnish products according to the Departments Qualified Products List (QPL).

601.14 Method of Measurement. The Department will measure Riprap, Articulating Concrete Block Revetment System, Crushed Aggregate Slope Protection, Concrete Slope Protection, and Tied

Concrete Block Mats by the square yard (square meter) of the finished surface completed and accepted in place, with or without grout.

The Department will measure Dumped Rock Fill and Rock Channel Protection (with or without filter), by the cubic yard (cubic meter), completed and accepted in place according to the dimensions shown on the plans, excluding rock filter, with or without grout. The Department may determine quantities by volume in the vehicle or by a job conversion weight of acceptable material delivered.

The Department will measure Paved Gutter by the foot (meter) completed and accepted in place.

601.15 Basis of Payment. The Department will specify with grout in the pay item description when required. When the pay item calls out Tied Concrete Block Mat or Articulating Concrete Block Revetment System, include filter fabric material and installation in the price.

The Department will pay for accepted quantities at the contract prices as follows:

Item	Unit	Description
601	Square Yard (Square Meter)	Riprap
601	Square Yard (Square Meter)	Crushed Aggregate Slope Protection
601	Square Yard (Square Meter)	Concrete Slope Protection
601	Square Yard (Square Meter)	Tied Concrete Block Mat, Type ____
601	Cubic Yard (Cubic Meter)	Articulating Concrete Block Revetment System, Type ____
601	Cubic Yard (Cubic Meter)	Dumped Rock Fill, Type ____
601	Cubic Yard (Cubic Meter)	Rock Channel Protection, Type ____ with Filter
601	Cubic Yard (Cubic Meter)	Rock Channel Protection, Type ____ without Filter
601	Cubic Yard (Cubic Meter)	Rock Channel Protection, Type ____ with Aggregate Filter
601	Cubic Yard (Cubic Meter)	Detention Basin Aggregate
601	Cubic Yard (Cubic Meter)	Infiltration Basin Aggregate
601	Foot (Meter)	Paved Gutter

602.03. E

On page 428, **Replace** the first sentence in 602.03.E with the following:

E. Pre-cast structures for slab footers, cut off walls, wingwalls, and headwalls for use with Items 706.05, 706.051, 706.52, and 706.053 must conform to the manufacturer's pre-approved design.

603.02

On page 430, **Replace** the material requirement for joint wrap with the following:

Joint wrap.....ASTM C 877, Type III

On page 430, **Add** the following after “precast reinforced concrete arch sections”:

Precast reinforced concrete round sections.....706.053

On page 433, under Type F conduits, **Replace** the material requirement for corrugated steel conduits with the following:

Corrugated steel conduits (steep slope conduit)..... 707.05, Type C or 707.07

On pages 431 and 432, under Type B conduits and Type C conduits, **Delete** the material requirements for “polyvinyl chloride plastic pipe (non-perforated) ... 707.41”, and “polyvinyl chloride sanitary pipe ... 707.44”, and **Add** the following after “polyvinyl chloride ABS composite pipe”:

Polyvinyl chloride large-diameter solid wall pipe.....707.48

On page 432, under Type D conduits, **Delete** the material requirements for “polyvinyl chloride sanitary pipe ... 707.44”, and **Add** the following after “polyvinyl chloride solid wall pipe”:

Polyvinyl chloride large-diameter solid wall pipe.....707.48

On pages 432 and 433, under Type E conduits and Type F conduits, **Replace** the material requirements for “polyvinyl chloride plastic pipe (non-perforated) ... 707.41” with the following:

Smooth-wall polyvinyl chloride underdrain pipe
(non-perforated)707.41

On page 433, under Type E conduits, **Delete** the material requirements for “polyvinyl chloride sanitary pipe ... 707.44”, and **Add** the following after “polyvinyl chloride ABS composite pipe”:

Polyvinyl chloride large-diameter solid wall pipe.....707.48

On page 433, under Type F conduits, **Replace** the material requirement for corrugated steel conduits with the following:

Corrugated steel conduits (steep slope conduit).....707.05, Type C or 707.07

603.03.A

On page 433, **Replace** 603.03.A with the following:

A. Long span structure includes all of the following material kinds: 706.05, 706.051, 706.052, 706.053, 707.15, and 707.25.

603.04. G

On page 434, **Replace** the first sentence of 603.04.G with the following:

If a 706.05 structure is specifically itemized or specified in the Contract, the Contractor may submit to the Department for approval a request to supply a 706.051 structure placed on precast slab bottom, a 706.052 structure placed on precast slab bottom, or a 706.053 structure placed on a precast slab bottom that is hydraulically equivalent and meets all cover requirements.

603.04.H

On page 435, **Replace** 603.04.H with the following:

H. If 706.051, 706.052 or 706.053 is specifically itemized or specified in the Contract, on footers, the Contractor may substitute each one for the other upon structure approval for hydraulics and cover. The manufacturer shall submit shop drawings and hydraulic calculations that are signed and sealed by a Registered Engineer for review and approval before manufacture. If 706.051, 706.052 or 706.053 is specifically itemized or specified in the Contract, on pedestal walls, the Contractor may substitute each one for the other upon structure approval for hydraulics, cover and pedestal wall design. 706.051, 706.052 and 706.053 require different pedestal wall designs.

603.04.I

On page 435, **Replace** 603.04.I with the following:

I. For 706.051, 706.052 and 706.053 provide shop drawings that are signed and sealed by a Registered Engineer. The manufacturer shall submit shop drawings to the Department for review and approval before manufacture..

603.06

On page 436, **Replace** the second paragraph of 603.06 with the following:

Use Type 1 bedding for 706.05, or 706.051, 706.052, and 706.053 on slab bottoms. Also use Type 1 bedding for 707.03, 707.15, and 707.25 on corrugated invert plates.

603.07

On page 437, **Replace** the third full paragraph on the page to the sixth paragraph with the following:

Set the 706.051 units on the concrete footing shown on the plans. Unless otherwise shown on the plans, provide a 3-inch (75 mm) deep keyway centered on the precast leg. The width of the keyway shall be 6 inches (150 mm) greater than the thickness of the precast leg. Place the units in a 1/2-inch (13 mm) bed of mortar. If proper line and grade of the structure cannot be maintained on the bed of mortar, set the units on 5 × 5-inch (125 × 125 mm) masonite or steel shims. Fill the entire keyway joint with mortar.

Set the 706.052 units on the concrete footing shown on the plans. Unless otherwise shown on the plans, provide a 3-inch (75 mm) deep keyway centered on the precast leg. The width of the keyway shall be 6 inches (150 mm) greater than the thickness of the precast leg. Place the units on 5 × 5-inch (125 × 125 mm) masonite or steel shims to provide a minimum 1/2-inch (13 mm) gap between the footing and bottom of the unit's bottom leg. Fill the entire keyway joint with mortar.

Set the 706.053 arches on the concrete footing shown on the plans. Unless otherwise shown on the plans, provide an 8-inch (200 mm) deep keyway for spans up to 24 feet (7.3 m) and a 10-inch (250 mm) deep keyway for all spans greater than 24 feet (7.3 m). Center the keyway on the precast arch base. The width of the keyway must be 8 inches (200 mm) greater than the thickness of the precast arch base. For non-vertical leg arches set on pedestal walls, a one-sided keyway is acceptable if the required pedestal wall design thickness is not sufficient for a full keyway. Place masonite or steel

shims to provide a minimum of 1.5-inch (38 mm) gap between the footing and the bottom of the precast arch base. Fill the entire keyway joint with mortar. Provide 5000 psi (34.5 MPa) mortar. For arches that gain structural continuity by a cast-in-place closure at the project site, provide concrete with the same compressive strength as the precast arch.

If reinforced concrete pipe has elliptical reinforcing, the top and bottom of the pipe are clearly marked on the pipe. Handle and place reinforced concrete pipe with elliptical reinforcement and reinforced concrete horizontal elliptical pipe with single cage reinforcement with the reinforcement markings along a vertical plane as marked on the pipe. Handle and place reinforced concrete pipe with auxiliary supports (S-stirrups) with the centerline of the auxiliary support system (S-stirrups) in a vertical plane as marked on the pipe.

For 706.05, 706.051, 706.052, or 706.053 structures fill the lifting devices with mortar. Cover the exterior of the lifting devices with joint-wrap material if outside the limits of the membrane waterproofing. Use joint-wrap with a minimum width of 9 inches (225 mm). Use only lifting devices that do not require a hole through the structure.

603.08.B

On page 439, **Replace** the first sentence of 603.08.B with the following:

B. Filling Joints. After placing 706.05, 706.051, 706.052, or 706.053 in their final position with a maximum joint gap of 1 inch (25.4 mm), clean the joint gap or joint of all debris and perform the following:

603.08.B.2

On page 439, **Replace** 603.08.B.2 with the following:

2. For 706.051, fill the top keyway joint with 705.22. The side or leg joints shall also be filled with 705.22 for the keyway type joint or filled per 706.05 for a tongue and groove type joint. Clean the joint of all debris immediately before installing the joint filling material. Wet all surfaces of the keyway joint, but do not allow free standing water in the joint. Prepare, place, and cure the 705.22 according to the manufacturer's recommendations. Next cover the exterior joint with a 12-inch (300 mm) wide strip of joint wrap. Center the joint wrap on the joint. Use a continuous length of joint wrap sufficient to extend from the bottom of the vertical face on one side to the bottom vertical face on the other side. Apply membrane waterproofing to the precast sections after they are installed.

603.08.B.3

On page 439, **Replace** 603.08.B.3 with the following:

3. For 706.052 and 706.053, install a $7/8 \times 1\ 3/8$ -inch (24×34 mm) 706.14 joint filler along the outside joint chamfer. Use a continuous length of joint filler sufficient to extend from the bottom of the vertical face on one side to the bottom vertical face on the other side. Before installing the joint filler, prime the joint chamfer with a primer according to manufacturer's recommendations. For 706.052 and 706.053, cover all exterior joints with a 12-inch (300 mm) wide strip of joint wrap centered on the joint. Use a continuous length of joint wrap sufficient to extend from the bottom of the vertical face on one side of the structure to the bottom vertical face on the other side. Next, apply all

waterproofing as shown on the plans. Apply membrane waterproofing to the precast sections after they are installed.

603.08.C

On page 439, **Replace** 603.08.C with the following:

C. Sealing Concrete Surfaces. For 706.05, 706.051, 706.052, or 706.053 apply an approved epoxy-urethane sealer per the plans to all top surfaces not covered by membrane waterproofing. Extend the sealer 1 foot (0.3 m) below the backfill on all sides of the culvert sections including the joint.

The Engineer and Contractor will visually inspect all conduit and joints before any backfill is placed. Rejoin, re-lay, or replace all conduit out of joint tolerance, alignment, settled, or damaged.

603.09

On pages 439 and 440, **Replace** 603.09 with the following:

603.09 Exterior Coatings and Membrane Waterproofing. If shown on the plans, externally apply membrane waterproofing to 706.05, 706.051, 706.052 or 706.053. Apply the membrane waterproofing to the top surface and extend it vertically down both sides of the structure. Clean the concrete surfaces when the membrane waterproofing does not adhere to the structure. Apply the membrane waterproofing to all surfaces that will be in contact with the backfill. Apply the waterproofing according to the appropriate requirements of Item 512.

Apply waterproofing to 707.03, 707.15, 707.23, and 707.25 conduits with less than eight feet (2.4 m) of cover by one of the following methods.

A. Coat the exterior of the conduit above the limits of the bedding and within the limits of backfill. Ensure that all plate seams and bolts are thoroughly sealed. The coating material and application shall conform to AASHTO M 243. Allow asphalt mastic material to dry 48 hours and tar base material to dry 28 hours before placing the conduit backfill. Rib stiffeners do not need to be coated.

B. Construct Buried Liner Waterproofing Membrane protection in the fill per the manufacturer's recommendations. The Buried Liner Waterproofing Membrane protection will be a seamless continuous sheet placed over the conduit and extend at least 10 feet (3.3 m) outside of the paved shoulder and for the width of the trench.

603.10.B

On page 440, **Replace** 603.10.B with the following:

B. Long Span.

1. For all long span structures except 706.053 in cut, place and compact structural backfill over the top of the section to a minimum depth 4 feet (1.2 m) or to the subgrade elevation whichever is less and for a width of 2 feet (0.6 m) on each side of the section. Use soil, granular embankment, or structural backfill to construct the adjacent embankment and for the remaining depth to the subgrade. Construct the adjacent material according to Item 203.

2. For all long span structures except 706.053 in fill, place and compact structural backfill over the top of the section to a minimum depth of 2 feet (0.6 m) or to the subgrade elevation whichever is less and for a width of 2 feet (0.6 m) on each side of the section. Use soil, granular embankment, or structural backfill to construct the adjacent embankment and for the remaining depth to the subgrade. Construct the adjacent material according to Item 203.

3. For 706.053 structures in cut or fill, place and compact structural backfill on both sides of the structure to the following minimum limits: vertically from the base up to a height of 75 percent of the rise; horizontally on each side of the structure to a sloping line that begins 2 feet (0.6 m) from the base of the structure and slopes up and away from the structure at a 1H:1V slope (45 degree angle). Use soil, granular embankment, or structural backfill to construct the adjacent embankment and for the remaining depth to the subgrade. Construct the adjacent material according to Item 203.

603.10.D

On page 441, **Change** the measurement of 12 inches (300 mm) to 6 inches (150 mm) in 603.10.D.1 and 603.10.D.2.

603.15

On page 444, after the pay item for precast reinforced concrete arch sections, **Add** a pay item as follows:

603 Foot (Meter) Type ____ Precast Reinforced Concrete Round Sections,
____' (____ mm) Span x ____' (____ mm) Rise

604.06

On page 446, **Add** the following paragraph to the beginning of 604.06:

Furnish precast structures according to the contract documents. Extra openings or excessive diameter of openings are cause for rejection of the precast structure.

605.02

On page 448, in 605.02.A and 605.02.B, **Replace** the material requirements for "polyvinyl chloride plastic pipe ... 707.41" with the following:

Smooth-wall polyvinyl chloride underdrain pipe707.41

605.02.B

On page 449, **Replace** the last paragraph of 605.02.B with the following:

If the specified size of the underdrains a 6-inch (150 mm) shallow pipe underdrain or base pipe underdrain and the kind of pipe material is not specifically itemized, then the Contractor may use 4-inch (100 mm) 707.31 perforated corrugated polyethylene drainage tubing.

608.02

On page 457 **Replace** the third line under the subsection heading with:

Concrete, Class C499 or Class RCA 499.10

609.02

On page 459 **Replace** the first line under the subsection heading with:

Concrete, Class C499 or Class RCA 499.10

614.02B

On Page 471, **Replace** the first sentence of the section with the following

When the highway under construction is being used by through traffic, including periods of suspension of the Work, maintain it so that it is smooth, free from potholes, ruts, ridges, bumps, and other pavement deficiencies. Furnish proper maintenance of traffic facilities and proper provisions for traffic control as per 105.14.

614.03

On page 472, **Revise** the eighth paragraph to reads as follows:

Furnish warning signs in advance of channelizing devices such as barricades, drums, vertical panels, and cones.

Keep retroreflective materials clean and in good condition.

On page 472, **Add** the following paragraphs after the eighth paragraph of the section:

Equip all project motor vehicles with photo strobe lights, LED warning lights, or rotating beacons meeting Class 1 or Class 2 specifications for color and intensity as defined by the Society of Automotive Engineers (SAE).

Photo strobe lights, LED warning lights, or rotating beacons shall be horizontally visible from all directions (360 degrees) at a distance of 100 feet minimum. In order to ensure this visibility, the light shall in no way be obstructed from view by any signs or appurtenances on the vehicle.

Activate the photo strobe lights, LED warning lights, or rotating beacons and all hazard lights anytime the vehicle is entering, exiting or operating in a traveled lane at a speed less than the posted speed within the limits of the work zone or one mile of either end of the work zone.

In addition, equip all project motor vehicles and trailers having a gross vehicle weight rating of 10,000 pounds or greater, in single or combination, with conspicuity tape. Also, delineate all NCHRP 350 Category IV equipment (lighted arrows, changeable message signs, etc.) with conspicuity tape.

Conspicuity Tape: Use red and white, Type G, H, or J retroreflective sheeting that complies with 730.19, 730.192, and 730.193.

a. Apply one 2-inch wide (minimum) horizontal stripe of Type G, H, or J retroreflective sheeting to a minimum of 50 percent of the length of each side of the payload portion of the motor vehicle, rearward from the back of the cab, NCHRP 350 Category IV equipment and trailers. Space lengths of tape evenly over the length of the payload portion of the motor vehicle rearward from the back of the cab, NCHRP 350 Category IV equipment, and trailers. The centerline for each strip of retroreflective sheeting shall be between 15 inches and 60 inches above the road surface when measured with the vehicle empty or unladen, or as close as practicable to this area.

b. Outline the lower rear facing area of the motor vehicle, NCHRP 350 Category IV equipment, and trailers with 2-inch wide (minimum) horizontal stripe of Type G, H, or J retroreflective sheeting. Apply the lower horizontal markings extending the width of the motor vehicle, NCHRP 350 Category IV equipment, and trailer as close as practical to the edge of the motor vehicle, NCHRP 350 Category IV equipment, and trailer. The centerline for each strip of lower horizontal retroreflective sheeting shall be between 15 inches and 72 inches above the road surface when measured with the vehicle empty or unladen, or as close as practicable to this area.

c. Outline the upper rear facing area with two pairs of strips of 2-inch wide (minimum) retroreflective Type G, H, or J sheeting, each pair consisting of strips 12 inches long, must be positioned horizontally and vertically on the right and left upper corners of the rear of the body of each motor vehicle or trailer, as close as practicable to the top of the motor vehicle or trailer and as far apart as practicable. If the perimeter of the body, as viewed from the rear, is not square or rectangular, the strips may be applied along the perimeter, as close as practicable to the uppermost and outermost areas of the rear of the motor vehicle or trailer on the left and right sides.

Escort transport or delivery vehicles without proper photo strobe lights, LED warning lights, or rotating beacons or conspicuity tape to and from the work zone only with the approval of the Engineer. This exception is intended for limited use at the discretion of the Engineer and will only be considered following a written request by the contractor. Otherwise, equip all project vehicles with photo strobe lights, LED warning lights, or rotating beacons and conspicuity tape as described herein.

Equip all project vehicles with photo strobe lights, LED warning lights, or rotating beacons and conspicuity tape as set forth in this section no later than October 1, 2010.

Equip all project vehicles with photo strobe lights, LED warning lights, or rotating beacons meeting Class 1 specifications for color and intensity as defined by the Society of Automotive Engineers (SAE) no later than January 1, 2012.

614.07

On page 474, **Replace** the fourth paragraph with the following:

Whenever it is necessary to divert the flow of traffic from its normal channel into another channel, clearly mark the channel for such diverted traffic with cones, drums, barricades, vertical panels, pavement markings, or arrow boards. Also use this method of marking where working adjacent to the part of the highway in use by the public.

614.10

On page 474, **Add** the following after the first sentence in the paragraph;

“Furnish and install Uninterruptible Power Supplies (UPS) conforming to 733.09. “

614.11. B

On page 475, **Add** “or Type 1A” in the first sentence of the second paragraph after “740.02 Type 1”.

614.11. F.1

On page 476, **Replace** the first paragraph with the following:

1. Class I Markings (Full Pattern, Full Rate). Use Class I Markings on all surfaces exposed to traffic for more than 14 days prior to application of final markings and to over-winter the project, with the following exception: Do not use Class I Markings on a surface course if thermoplastic, spray thermoplastic or epoxy final markings are to be applied to the surface course. If thermoplastic, spray thermoplastic or epoxy final markings are to be applied to the surface course, use Class III Markings on that course.

On page 477, **Replace** the 2nd Paragraph with the following
Apply Class I work zone markings to the standard dimensions as defined in Item 641, except as follows:

- a. Edge Lines. Class I edge lines shall be 4 inches (100 mm) in width.
 - b. Lane Lines. Class I lane lines shall be 4 inches (100 mm) in width.
- Channelizing Lines. Class I channelizing lines shall be 8 inches (200 mm) in width.

614.11. F.3

On page 477, **Replace** the first paragraph with the following:

3. Class III Markings (Full Pattern, Low Rate). Use Class III Markings on surface courses that are expected to receive thermoplastic, spray thermoplastic or epoxy final markings within 30 days. Class III Markings use a lower application rate which reduces the surface preparation needed prior to application of thermoplastic, spray thermoplastic or epoxy final markings. If Class III Markings have been applied and weather conditions are expected to prevent thermoplastic, spray thermoplastic or epoxy final markings application for 30 days or more, re-apply Class III Markings if thermoplastic, spray thermoplastic or epoxy final markings application is expected to occur within 30 days or apply Class I Markings as necessary to carry the project through the season or over the winter.

On page 477, **Replace** the 2nd Paragraph with the following
Apply Class III work zone markings to the standard dimensions as defined in Item 641 except as follows:

- a. Edge Lines. Class I edge lines shall be 4 inches (100 mm) in width.
 - b. Lane Lines. Class I lane lines shall be 4 inches (100 mm) in width.
- Channelizing Lines. Class I channelizing lines shall be 8 inches (200 mm) in width

614.11.G

On page 477, **Add** the following sentence before the first sentence:

Conflicting markings are considered to be any markings not actively in use, not behind channelizing devices or portable barrier and/or could be misinterpreted by the traveling public or cause confusion to the driver as determined by the engineer.

614.11. G.1.a

On page 477, **Replace** the entire section with the following;

“Removal Methods. Remove the markings so that less than 5% of the line remains visible. Repair damage to the pavement that results in the removal of more than 1/8 inch of pavement thickness. Use sand, shot, or water blasting to remove markings on all asphalt or concrete pavement surfaces. Use only sand, shot, or water blasting for removal of all pavement markings in preparation for placing Item 422 Chip Seal or Item 421 Microsurfacing. A grinder may only be used to remove markings on temporary pavement or pavement that will be covered or removed prior to project completion (e.g., intermediate asphalt course). When a grinder drum is mounted to a skid steer loader, the drum must be able to accommodate a minimum of 150 teeth.”

614.11.H.1

On page 478, **Replace** the first paragraph with the following:

1. No Passing Zones. When existing permanent no-passing-zone markings are removed or obliterated as the result of a construction operation (pavement grinding, asphalt concrete pavement overlays, etc.) and the section of pavement continues to be used by the traveling public, place Class I Center Line Markings or final center line markings as specified by the plan within 3 Calendar Days unless thermoplastic, spray thermoplastic or epoxy final markings are to be applied on the surface course. If thermoplastic, spray thermoplastic or epoxy final markings are to be applied on the surface course, place Class III Center Line Markings or final center line markings as specified in the plan within 3 Calendar Days.

614.11.H.2

On page 479, **Replace** the section with the following:

2. Passing Zones. Sections of pavement where passing is permitted in both directions must be marked with Class I Center Line Markings or final center line markings as specified by the plan within 14 Calendar Days unless thermoplastic, spray thermoplastic or epoxy final markings are to be applied on the surface course. If thermoplastic, spray thermoplastic or epoxy final markings are to be applied on the surface course, place Class III Center Line Markings or final center line markings as specified in the plan within 14 Calendar Days.

614.11.H.3

On page 479, **Replace** the first paragraph with the following:

3. Allowable Duration of Class II Lane Lines and Gore Markings and Absence of Edge lines. Any time existing permanent lane lines, gore markings, or edge lines have been removed or obliterated as the result of a construction operation (pavement grinding, asphalt pavement overlays, pavement widening, etc.) and the section of pavement continues to be used by the traveling public, place Class I Markings or final markings as specified by the plan within 14 Calendar Days unless thermoplastic, spray thermoplastic or epoxy final markings are to be applied on the surface course. If thermoplastic, spray thermoplastic or epoxy final markings are to be applied on the surface course, place Class III Markings or final markings as specified in the plan within 14 Calendar Days.

614.11.5A

On page 480, **Replace** the first paragraph with the following;

“Furnish materials according to the Department’s Approved List.”

614.14

On Page 484, **Add** the following sentence after the first paragraph:
Identify all pavement deficiencies within the work area. Repair deficiencies as soon as possible and within 24 hours from notice of the deficiency.

614.15

On page 484, **Add** the following to the end of the second paragraph;
Line quantities will be the length of the completed stripe, including gaps, intersections and other sections of pavement not normally marked. Work Zone Pavement Markings will include the layout, application and removal of the markings, when required.

On page 484, **Add** the following paragraph after the third paragraph:

The Department will measure Sign Months for Portable Changeable Message Signs by the number of months each sign is at the project or project storage yard and immediately available to the project for use. Measurement will begin when each unit is in active service and will continue until the Engineer determines the Portable Changeable Message Sign is no longer needed for the remaining duration of the project. A Sign Month will be deducted if a PCMS is not working properly for more than 24 hours in one sign month or if the contractor removes the PCMS from the project/project storage yard without the Engineer's determination that it is no longer needed for the project.

614.16

On page 484, **Replace** the words "Flashing arrow panels" with "Arrow boards".

On page 485, **Replace** the word "Day" with "Sign Month" for the Description Portable Changeable Message Sign.

615.01

On page 486, **Replace** entire section with the following:

615.01 Description. This work consists of providing, maintaining, and subsequently removing roads and appurtenances, and pavements for maintaining traffic.

615.05

On Page 487, Paragraph 8

Delete the last sentence and replace with the following paragraph:

Use a PG 64-22 asphalt binder for temporary asphalt pavement. If any part of the temporary pavement will be incorporated into the project permanently, then use the contract-specified PG asphalt binder grade for the pavement course.

615.10

On page 488, **Replace** entire section with the following:

615.10 Basis of Payment. Payment for Roads for Maintaining Traffic will not include those specified for Item 410 Traffic Compacted Surface or Item 616 Calcium Chloride.

Payment for Roads for Maintaining Traffic includes the installation, maintenance, and removal of all fencing, earthwork, guardrail, sidewalk, and all other items as necessary to provide a complete, functional, and safe installation for public use. The Department will pay for areas requiring undercut and replacement conforming to 204.04 according to 204.09.

The Department will pay for accepted quantities at the contract prices as follows:

Item	Unit	Description
615	Square Yard (Square Meter)	Pavement for Maintaining Traffic, Class A
615	Square Yard (Square Meter)	Pavement for Maintaining Traffic, Class B
615	Lump Sum	Roads for Maintaining Traffic

617.05

On page 490, **Replace** the second paragraph in 617.05 with the following:

Where the shoulder is relatively level, compact the material using crawler-type tractors, tamping rollers, trench rollers, suitable pneumatic tire rollers, or other suitable equipment. Use a minimum of four passes with compaction equipment weighing at least 6 tons (5 metric tons). Perform the final compaction of the surface of the shoulder using a pneumatic tire roller. Where it would be unsafe to use the above compaction equipment due to the grade or width of the shoulder, use a side-mounted roller or side-mounted vibrating plate compactor that is securely attached to a tractor or other construction equipment. The side-mounted roller or side-mounted vibrating plate compactor must be able to adequately compact the aggregate while the equipment to which it is mounted remains on the paved surface. Use a minimum of four passes with the side-mounted roller and two passes with the side-mounted vibrating plate compactor. Compact the aggregate immediately after the spreading operation to prevent the loss of contained moisture and displacement of the material.

619.02

On page 493, **Replace** the second paragraph with:

For projects requiring moisture and density control of construction materials, provide the field office with a lockable wood or metal storage box of sufficient size to store a nuclear density gauge and provide an electrical connection for the gauge's charging. Lockable requires two independent lock systems. One that locks the box the gauge is stored in. The second locks the box to the facility the box is housed in. The acceptable second lock can be bolting the box to the office floor or wall. The selected storage area for the box will be at least 15 feet (5 meters) from any occupied work area.

On page 493, **Replace** Table 619.02-1 Field Office with:

TABLE 619.02-1 FIELD OFFICE

Item	Type A	Type B	Type C
Minimum ceiling height, ft (m)	7 (2.1)	7 (2.1)	7 (2.1)
Floor space, ft ² (m ²)	150 (14)	500 (46)	1000 (93)
Separate enclosed room, ft ² (m ²) (Part of specified floor space)	0 (0)	0 (0)	100 (9)
Telephone service & telephones ^[1]	2	2	2
Internet service connection ^[1]	1	1	1
Multi-Function copier that is setup for scanning, printing, faxing and copying. ^[2]	1, 11x17	1, 11x17	1, 11x17
Calculator with tape	1	2	3
Desk and chair set	1	3	5
Work table, 30 × 72-inch (750 × 1800 mm)	1	2	3
4-drawer, legal size, lockable metal file cabinet	---	1	2
2-drawer, metal file cabinet	1	2	2
Portable fire extinguishers ^[3]	1	1	2
Plan rack ^[4]	1	1	2
All-weather parking spaces	8	16	20

[1] For each telephone specified, provide the telephone itself, all wiring necessary to connect the phone and multi-function copier to the phone company system, and a working separate phone number for each telephone. Connect one phone to a recorded answering device. For Types B and C, provide one speakerphone.

[2] Copier must meet minimum specifications provided for each field office type. Contractor responsible for paper supplies, copier supplies, and maintenance of copier.

Type A:

Copy/Print Speed: 20 Pages Per Minute (Letter), 15 Pages Per Minute (Legal), 12 Pages Per Minute (Ledger) or higher

Duplex printing support

Automatic document feeder with 40 sheet duplexing document feeder

Copier Memory: 256 MB

Data Security Kit

Paper Capacity - 250 sheet x 2 trays, 50-sheet Bypass tray

Network Interface: 10/100Base-TX, 1000Base-TX

Analog Fax Support Included with machine

Color Scanning with following requirements:

Up to Up to 600 x 600 dpi

Scan Area up to 11" X 17"

Scanning Protocol Support - TCP/IP, SMTP, SMB, FTP, POP3, NCP

File Scan Types Supported: Single Page TIFF, JPEG, PDF, Multi- Page TIFF, PDF, and

Scanning Support for Scan-to-Email, SMB (Folder), URL, and TWAIN

Network protocol support for TCP/IP

Client and Server Print Driver Support for PCL Print Drivers

Server Operating System Support for Windows Server 2008 and Windows Server 2008 R2 (32 Bit/64 Bit)

Client Print driver support for Windows XP/Windows 7 (Both PCL/(32 Bit and 64 Bit))

Minimum print/copy resolution of 600 x 600 dpi

Type B:

Copy/Print Speed: 30 Pages Per Minute (Letter), 15 Pages Per Minute (Legal), 15 Pages Per Minute (Ledger) or higher

Duplex printing support

Automatic document feeder with 50 sheet duplexing document feeder

Copier Memory: 768 MB

Installed HDD: 40 GB

Data encryption and HDD Erase Support included with machine

Internal Stapler Support

Paper Capacity - 250 sheet x 2 trays, 50-sheet Bypass tray

Network Interface: 10/100Base-TX, 1000Base-TX

Analog Fax Support Included with machine

Color Scanning with following requirements:

Up to Up to 600 x 600 dpi

Scan Area up to 11" X 17"

Scanning Protocol Support - TCP/IP, SMTP, SMB, FTP, POP3, NCP

File Scan Types Supported: Single Page TIFF, JPEG, PDF, Multi- Page TIFF, PDF, and OCR PDF

Scanning Support for Scan-to-Email, HDD, SMB (Folder), URL, and TWAIN

Network protocol support for TCP/IP

Client and Server Print Driver Support for PCL Print Drivers

Server Operating System Support for Windows Server 2008 and Windows Server 2008 R2 (32 Bit/64 Bit)

Client Print driver support for Windows XP/Windows 7 (Both PCL/(32 Bit and 64 Bit))

Minimum print/copy resolution of 600 x 600 dpi

Secure printing with password or pin from client to copier

Type C:

Color Print/Copy/Scan

Copy/Print Speed: 30 Pages Per Minute (Letter), 15 Pages Per Minute (Legal), 15 Pages Per Minute (Ledger) or higher

Duplex printing support

Automatic document feeder with 50 sheet duplexing document feeder

Copier Memory: 1 GB

Installed HDD: 40 GB

Data encryption and HDD Erase Support included with machine

Internal Stapler Support

Paper Capacity - 250 sheet x 2 trays, 50-sheet Bypass tray

Network Interface: 10/100Base-TX, 1000Base-TX

Analog Fax Support Included with machine

Color Scanning with following requirements:

Up to Up to 600 x 600 dpi

Scan Area up to 11" X 17"

Scanning Protocol Support - TCP/IP, SMTP, SMB, FTP, POP3, NCP

File Scan Types Supported: Single Page TIFF, JPEG, PDF, Multi- Page TIFF, PDF, and OCR PDF

Scanning Support for Scan-to-Email, HDD, SMB (Folder), URL, and TWAIN

Network protocol support for TCP/IP

Client and Server Print Driver Support for PCL Print Drivers

Server Operating System Support for Windows Server 2008 and Windows Server 2008 R2 (32 Bit/64 Bit)

Client Print driver support for Windows XP/Windows 7 (Both PCL/(32 Bit and 64 Bit))

Minimum print/copy resolution of 600 x 600 dpi

Secure printing with password or pin from client to copier

[3] Type 2-A:10-B:C, 5-pound (2.27 g) size

[4] Capable of handling the breakdown of 22 x 34-inch (559 x 864 mm) sized plans in to ten sections.

[5] Provide a broadband internet connection capable of minimum download speeds as follows:

Type A: 2 Mbps download 768 Kbps upload - Network Latency less than 50 milliseconds

Type B: 5 Mbps download 1Mbps upload - Network Latency less than 50 milliseconds

Type C: 10 Mbps download 2 Mbps upload - Network Latency less than 50 milliseconds

If speeds are not available through an individual or singular circuit, provide the highest speed available in the area and install multiple circuits to achieve the specified speeds. When multiple broadband services are available the following is the preferred order: Cable, DSL, Cellular, and Wireless Radio (Satellite Communication is not compatible with ODOT VPN connection and will not be accepted). Supply modems have the capability to be configured in Bridge Mode. If a cellular network is used, provide the cellular equipment, including software and router equipment to connect to the ODOT provided Cisco ASA 5505 firewall. Supply ODOT with all documentation for the broadband circuit including all username/user ids, passwords and account information. Verify that the broadband internet connection is active and working as specified. ODOT IT personnel will confirm that bandwidth and network latency are compliant with the required field office specifications. All field office Internet connections are for ODOT use only.

620.01

On Page 494, **Delete** the words “or reflectors” from the first sentence.

On page 494, **Delete** the following from the first sentence in the paragraph;
“storage or “

620.02

On page 494, **Replace** the section with the following:

620.02 Materials. Furnish materials conforming to:

Reflectors	720.01
Posts, flexible	720.03
Steel hardware	730.08
Brackets.....	730.09
Stainless steel hardware	730.10
Aluminum hardware.....	730.17
Reflective sheeting.....	730.192, 730.193

Delineators consist of reflectors mounted on flexible posts or brackets. Reflectors are reflective sheeting adhered to either a flexible post or an aluminum plate. The colors of reflectors of each type are:

Type C	White
Type D	Yellow
Type E	Red

620.02

On page 494, **Add** the following sentence to the end of the section:

Delineator reflector and flexible post color shall match that of the nearest edge line.

620.06

On Page 495, **Delete** the second sentence in the section.

620.07

On Page 495, **Replace** the section with the following:

The Department will pay for accepted quantities at the contract prices as follows:

Item	Unit	Description
620	Each	Delineator
620	Each	Removal of Delineator

621.02

On page 496, Replace the entire section with the following:

621.02 Materials. Furnish materials conforming to :

Castings.....	721.01
Prismatic Retroreflectors and Adhesive	721.02
Casting adhesive	721.03

621.05

On page 498, **Delete** the following from the third paragraph;
“an ODOT approved”

622.02

On page 499, **Replace** the first line of the paragraph with the following

622.02 Materials. Furnish materials conforming to:

Concrete, Class C 499 or Class RCA 499.10

625.22

On page 515, **Replace** the fourth paragraph with the following:

Foundations for light poles or light towers include excavation, reinforcing steel, raceways, concrete, backfilling, and when required the 8 foot or 10 foot foundation section of concrete barrier, and the disposal of surplus excavation. For light poles or light towers mounted on median barrier or retaining walls, the junction box at the point where the stub conduit to the light pole or tower joins the main lighting circuit raceway and the stub conduit from the junction box to the light pole or light tower are also included. Anchor bolts, conduit ells and surface restoration not included elsewhere are also included with the foundation.

626.02

On Page 518, **Replace** the second paragraph with the following:

Barrier Reflectors.....726.01

626.02

On page 518, **Replace** the first sentence in the first paragraph with;
“Furnish materials conforming to”

630.04

On page 524 in Figure 1 Alternate design, **Replace** “08 09 10 11 12” with “10 11 12 13 14”.

630.06.B

On page 526, **Delete** the second sentence of the first paragraph. “Furnish supports that include brackets for attaching disconnect switch, and pipe couplings for sign wiring.”

On page 526, **Delete** the last sentence of the third paragraph. "Furnish luminaire support assemblies for lighted signs."

630.07

On page 527, **Add** the following to the end of the section
Mount overhead signs so that the bottom of the signs are in a level position regardless of the sag of supporting messenger wire, mast arm rise, chord member or overpass slope

630.14

On page 529, **Replace** the first paragraph, with the following

Method of Measurement. The Department will measure Ground Mounted Post Support by the number of feet (meters) measured from the bottom of the support to the top of the support, and will include driving hardware for anchor base installation, and furnishing and placing of patching materials for excavations in paved areas. The Department will not measure the overlap length of post for the anchor base installation.

On page 529, in the second paragraph, **Add** the word "raceways" after the word "backfilling".

On page 529, in the second paragraph, **Add** the following sentence at the end of the paragraph:
Sealing of the 10 foot foundation section of concrete barrier shall be paid for under Item 512 when specified in the plans.

On page 529, **Replace** the sixth paragraph, with the following

The Department will measure One Way Support and Street Name Sign Support by the number of feet (meters) measured from the bottom of the support to the top of the support, and will include driving hardware for anchor base installation, and furnishing and placing of patching materials for excavations in paved areas. The Department will not measure the overlap length of post for the anchor base installation.

On page 530, in the tenth paragraph **Delete** "luminaire support assemblies when required,".

On page 530, in the eleventh paragraph **Delete** "luminaire support assemblies when required,".

631.03

On page 533, in the materials list **Delete** "Mercury vapor".

631.06

On page 535, **Add** "screened" before "1/4 inch" in the third sentence of the second paragraph.

631.09

On page 535, **Replace** the fourth paragraph with the following: Furnish school speed limit sign assemblies that conform to the Contract Documents. School speed limit sign assemblies consist of a reflectorized SCHOOL (S4-3P) plaque, SPEED LIMIT 20 (R2-1) sign and DURING RESTRICTED HOURS (S4-H5P) plaque fitted with a pair of flashing beacons arranged above and below.

632.15

On page 543, **Add** the following paragraph at the end of the section:

Do not erect signal supports unless at least one signal, sign or damping device approved by the Engineer is installed within 24 hours.

632.16

On page 543, **Delete** the fourth paragraph at the end of the section:

632.225

On page 544, **Replace** the section with the following:

632.225 Tether Wire. Arrange tether wire with accessories to stabilize signal heads and prevent excessive swinging and twisting. Install shim washers on hanger pin adjacent to wire entry to prevent any twisting of the head on the hanger. Accessories included with tether wire include pole clamps, anchor shackles, S-hooks yielding element, thimbles, turnbuckles, guy grips, wire rope clips, lock wire, safety tie wire, and signal head tether anchors and extenders.

Adjust the tether span to be horizontal on simple spans. On all spans, install tether horizontally and tighten with turnbuckles. Bull Rings will be used at all internal corners of the tether span. Safety ties shall be installed at all yielding (S-hook) locations to prevent the span end from dropping into the roadway if the S-hook opens. No electrical or communication cables of any kind shall be attached to the tether wire. No signs or other devices shall be suspended from or attached to the tether wire.

632.29

On page 548, in the first sentence of the fourth paragraph, **Add** the words "pole clamps" before anchor shackles.

632.23

On Page 544, **Replace** the fourth paragraph with the following:

Install signal cable between signal heads and controller cabinets. Signal cables shall not be stripped beyond a length necessary to attach individual conductors within the signal head . The jacket shall extend into the signal head enclosure. Install interconnect cable between controller cabinets of different intersections. Route signal and interconnect cable by aerial installation supported by messenger wire or within underground conduit. If specified, use aerial self-supporting integral messenger type interconnect cable with a figure "8" cross-section and include pole clamps and splice enclosures. Ground the supporting messenger wire of interconnect cable.

632.24

On page 546, **add** the following paragraph after the 2nd paragraph

Furnish each enclosure with at least one padlock. Use padlocks with a bronze or brass lock body and a corrosion protected steel shackle. Obtain the appropriate master key number from the maintaining agency.

632.29

On page 549, **Replace** the 6th paragraph with the following:

The Department will measure Power Service by the number of complete units, and will include weatherhead, conduit, fittings, clamps and other necessary hardware, installation of meter base, ground wire connection, and disconnect switch with enclosure and padlock.

632.30

On page 550, **Delete** “(LED)” from the bid item descriptions for Vehicular Signal Head and Pedestrian Signal Head.

641.03

On page 573, **Replace** the fourth paragraph with the following:

Ensure that lines are sharp, well defined, and uniformly retroreflective. Apply the lines to the width specified $\pm 1/4$ inch (6 mm). Fuzzy lines, excessive overspray, or non-uniform application are unacceptable. The Engineer will inspect lines at night to verify proper retroreflectivity. Correct pavement markings that are improperly applied, located, or reflectorized. Reapply lines applied with insufficient material quantities according to 641.11, 644.04 or 817.05. Remove improperly located lines according to 641.10, and apply new lines in the correct locations.

641.08

On page 575, **Replace** the first paragraph with the following:

Apply marking materials at the rate or thickness specified in 642.04, 643.04, 644.04, 645.03, 646.05, 647.04, or 817.05 and, except for parking lot stall markings, ensure that they are uniformly retroreflective. However, ensure that portions of parking stalls that are adjacent to street traffic are retroreflective. Pavement markings consist of the following types:

641.08

On page 576, **Replace** the last paragraph with the following:

The term long lines, when used in sections 642 through 647 and 817 includes edge lines, lane lines, center lines, and channelizing lines over 200 feet (60 m) long. The term auxiliary markings, when used in Items 642 through 647 includes channelizing lines 200 feet (60 m) or shorter, stop lines, crosswalk lines, transverse lines, diagonal lines, curb markings, island markings, symbol markings, parking lot stall markings, lane arrows, and dotted lines.

641.08 A

On page 576, **Replace** the entire paragraph with the following
Place edge lines as continuous stripes using the width specified. Locate the center of the stripe 6 inches (150 mm) from the edge of the pavement.

641.08 B

On page 576, **Replace** the entire paragraph with the following
Place lane lines using the width specified, as white stripes between contiguous lanes of pavement carrying traffic in the same direction. Place them as broken lines unless specified solid. Offset lane lines to the left of the longitudinal joint, if present, or the theoretical line lying between contiguous lanes, if a joint is not present. Ensure that the nearer edge of the stripe is 2 inches (50 mm) to the left of the joint or line. Do not place lane lines through intersections.

641.08 D

On page 576, **Replace** the entire paragraph with the following
Place channelizing lines as continuous white stripes, using the width specified.

641.13

On page 577, **Replace** the first sentence with the following:

The Department will pay for accepted quantities of work performed under Items 642, 643, 644, 645, 646, 647 and 817.

642.05

On page 580, **Replace** the following items

- 642 Mile (Kilometer) Edge Line, Type ____
- 642 Mile (Kilometer) Lane Line, Type ____
- 642 Foot (Meter) Channelizing Line, Type ____

With the following

- 642 Mile (Kilometer) Edge Line, ____ inch (____ mm), Type ____
- 642 Mile (Kilometer) Lane Line, ____ inch (____ mm), Type ____
- 642 Foot (Meter) Channelizing Line, ____ inch (____ mm), Type ____

643.05

On page 582, **Replace** the following items

- 643 Mile (Kilometer) Edge Line,
- 643 Mile (Kilometer) Lane Line,
- 643 Foot (Meter) Channelizing Line,

With the following

- 643 Mile (Kilometer) Edge Line, ____ inch (____ mm),
- 643 Mile (Kilometer) Lane Line, ____ inch (____ mm),
- 643 Foot (Meter) Channelizing Line, ____ inch (____ mm),

644.04

On page 585, **Replace** the following table

125 Mil Thickness	Line Width (inch)			
	4	8	12	24
	Pounds per Mile of Line			
Solid Line	2340	4680	7020	14040
Broken Line	585	1170	1755	3510
Dotted Line	585	1170	1755	3510
Areas, Symbols, Words	133 pounds per 100 square feet			

3.2 mm Thickness	Line Width (mm)			
	100	200	300	600
	Kilograms per Kilometer of Line			
Solid Line	650	1300	1950	3900
Broken Line	165	325	490	975
Dotted Line	165	325	490	975
Areas, Symbols, Words	6.5 kg/m ²			

With the following

125 Mil Thickness	Line Width (inch)				
	4	6	8	12	24
	Pounds per Mile of Line				
Solid Line	2340	3510	4680	7020	14040
Broken Line	585	878	1170	1755	3510
Dotted Line	585	878	1170	1755	3510
Areas, Symbols, Words	133 pounds per 100 square feet				

3.2 mm Thickness	Line Width (mm)				
	100	150	200	300	600
	Kilograms per Kilometer of Line				
Solid Line	650	975	1300	1950	3900
Broken Line	165	245	325	490	975
Dotted Line	165	245	325	490	975
Areas, Symbols, Words	6.5 kg/m ²				

644.06

On page 586, **Replace** the following items

- 644 Mile (Kilometer) Edge Line,
- 644 Mile (Kilometer) Lane Line,
- 644 Mile (Kilometer) Channelizing Line,

With the following

- 644 Mile (Kilometer) Edge Line, ____ inch (____ mm),
- 644 Mile (Kilometer) Lane Line, ____ inch (____ mm),
- 644 Mile (Kilometer) Channelizing Line, ____ inch (____ mm),

645.05

On page 588, **Replace** the following items

- 645 Mile (Kilometer) Edge Line, Type ____
- 645 Mile (Kilometer) Lane Line, Type ____
- 645 Foot (Meter) Channelizing Line, Type ____

With the following

- 645 Mile (Kilometer) Edge Line, ____ inch (____ mm), Type ____
- 645 Mile (Kilometer) Lane Line, ____ inch (____ mm), Type ____
- 645 Foot (Meter) Channelizing Line, ____ inch (____ mm), Type ____

646.06

On page 593, **Replace** the following items

- 646 Mile (Kilometer) Edge Line,
- 646 Mile (Kilometer) Lane Line,
- 646 Foot (Meter) Channelizing Line,
- 646 Foot Dotted Line,

With the following

- 646 Mile (Kilometer) Edge Line, ____ inch (____ mm),
- 646 Mile (Kilometer) Lane Line, ____ inch (____ mm),
- 646 Foot (Meter) Channelizing Line, ____ inch (____ mm),
- 646 Foot Dotted Line, ____ inch (____ mm),

647.05

On page 595, **Replace** the following item

- 647 Foot (Meter) Channelizing Line, Type ____

With the following

- 647 Foot (Meter) Channelizing Line, ____ inch (____ mm), Type ____

659.25,

On pages 614 and 615, **Replace** the first and second paragraphs in 659.25 with the following paragraphs:

659.25 Basis of Payment. The Department will pay the plan quantity for compacted topsoil. The Department will not adjust topsoil quantities when the volume between two consecutive cross-sections differs by less than 5 percent from the plan quantity, unless the difference between the actual quantity and plan quantity is greater than 1000 cubic yards (1000 m³). For quantity differences greater than 5 percent or greater than 1000 cubic yards (1000 m³), submit supporting documentation to the Engineer.

The Department will pay the plan quantity for Seeding and Mulching. The Department will not adjust Seeding and Mulching quantities when the area between two consecutive cross-sections

differs by less than 5 percent from the plan quantity, unless the difference between the actual quantity and plan quantity is greater than 20,000 square yards (20,000 m²) for all Seeding and Mulching pay items, combined. For quantity differences greater than 5 percent or greater than 20,000 square yards (20,000 m²), submit supporting documentation to the Engineer.

671.03.A

On page 626, **Delete** references to Type D erosion control mat.

671.03.C

On page 627, **Delete** 671.03.C, Type H.

700

On page 630, **Add** a section for **499**:

499	Various Concrete Items	A sample for concrete strength testing consists of a set of three 4" x 8" cylinders when the maximum nominal aggregate is 1 inch or less. For concrete with maximum nominal aggregate sizes greater than 1 inch, a sample consists of a set of two 6" x 12" cylinders.	Within 24 to 48 hours after sampling, ship cylinders to Laboratory with required documentation.
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On page 630, **Make** the following changes to **511**:

511	Concrete for Structures	Make one set of cylinders for spans over 20 ft each day, each 200 yd ³ . For spans 20 ft span and under, make one set of cylinders each 50 yd ³ or less. Document in CMS. Field or Standard Cure according to ACI/ODOT specifications.	Within 24 to 48 hours after sampling, ship cylinders to Laboratory with required documentation.
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On page 631, **Make** the following changes to **526**:

526	Approach Slabs	Make one set of cylinders for each day, each 200 yd ³ . Document in CMS. Field or Standard Cure according to ACI/ODOT specifications.	Within 24 to 48 hours after sampling, ship cylinders to Laboratory with required documentation.
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On page 633 replace existing rows 1, 2, and 3 with the following:

Spec No.	Material	Material only Inspection or Sampling Requirements	Post Inspection Instructions
702.02	Cut Back Asphalt	Certified material:	Certified material: Submit to Lab. Non-certified material: Submit to Lab. Do not use until approved by Lab.
702.03	Cut Back Asphalt	At the refinery or source as directed by the Lab. Project and/ or Plant: One sample per each 25,000 gallons. None for less than 300 gallons.	
702.04	Emulsions		
702.07	Emulsified Asphalts		
702.13	Asphalt Emulsion MWS SBR Asphalt Emulsion	Non-certified material: Will be sampled and approved by the Department before use.	
702.05	Asphalt Primer	Verify type and brand name of material is on QPL at the time of use.	If rejecting material because material non-performs or looks defective during use, notify District Testing and OMM Asphalt Cement Section.
702.06	Waterproofing Asphalt Waterproofing	Document in CMS (Trns.port SiteManager™)	

On page 633 replace row 702.16 with the following row:

702.16	Polymer Emulsified Binder	Type A: Certified Material. At the refinery or source as directed by the Lab. Project and/ or Plant Sample per 422.10. Non-certified material: Will be sampled and approved by the Department before use. Type B: Certified test data	Type A: Certified material: Submit to Lab. Non-certified material: Submit to Lab. Do not use until approved by Lab.
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On page 637, Add the following to the table:

705.13	Neoprene Sheeting	Verify type and brand name of material is on QPL at time of use. Inspect for condition and appearance. Document in CMS (Trns.port Site Manager™)	Notify District Testing and OMM, structural welding and metals section, if rejecting material because material non-performs or looks defective during use.
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702.01 Asphalt Binders.

On page 659, Replace the entire section 702.01 Asphalt Binders with the following:

702.01 Asphalt Binders.

General. According to AASHTO M 320-10 Table 1 except as follows.

Ensure PG 70-22M, PG 76-22M and PG 64-28 meet the requirements of Table 702.01-1.

An independent laboratory will not be owned or operated, in whole or part, by the binder supplier, Contractor, or affiliates of either.

Materials and Manufacture. Replace the requirements of AASHTO M 320-10 Table 1 Section 5 "Materials and Manufacture" Section with the following:

5.1 Supply PG Binder from the refining of crude petroleum, or combination of asphalt binders from the refining of crude petroleum, or asphalt binders and suitable liquid from the refining of crude petroleum, and possible organic modifiers for performance enhancement. Material from the crude refining stream is considered neat. Liquid from crude refining may be used for adjustments, but do not use liquid from crude refining for the purpose of substitution of crude refined asphalt binder in a PG Binder. In the event of a failure investigation where asphalt binders exhibit unusual properties a supplier may be requested by the Laboratory to supply information about the makeup of a PG Binder. Failure to cooperate will mean removal from Supplement 1032 certification.

5.2 A modifier may be any approved material of suitable manufacture that is proven compatible with asphalt binder (does not separate appreciably in routine storage), and that is dissolved or reacted in asphalt binder to improve its performance. Performance enhancement is defined as a decrease in the temperature susceptibility of the asphalt binder while maintaining or improving desirable properties in a neat asphalt binder such as coat ability, adhesiveness and cohesiveness. Unless otherwise noted limit modifiers to no more than 6.0 percent by PG Binder weight.

5.3 The use of previously used materials in a PG Binder must be approved by the Department. Since no standard test procedures exist for reprocessed materials (and original tests were not developed with the use of such materials in mind), appropriate test methods may be chosen by the Department for review. Department approval does not relieve the binder supplier from full responsibility for content and use of any previously used material in a PG Binder nor guarantee suitable performance enhancement as defined above. The detected presence in a PG Binder sample of any unapproved previously used material will mean immediate removal from Supplement 1032 certification. Limit approved reprocessed materials to 6.0 percent by PG Binder weight.

5.4 Ensure the PG Binder is homogeneous, free from water and deleterious materials, and does not foam when heated to 350 °F (175 °C). Prove the asphalt binder (before modification or after modification if liquid modifier used) is fully compatible with a negative result by means of the Spot Test per AASHTO T 102 using standard naphtha solvent. If standard naphtha shows a positive result, a retest using reagent grade 35 percent Xylene/ 65 percent Heptane (volume) may be used.

5.5 Ensure the PG Binder is at least 99.0 percent soluble as determined by ASTM D 5546 or D 2042. Ensure any insoluble component is free of fibers or discrete particles more than 75 µm.

5.6 Ensure flash point is 500 °F (260 °C) minimum. Ensure mass loss on RTFO of the final PG Binder grade is 0.5 percent maximum.

5.7 Ensure that PG 64-22 has a Penetration (AASHTO T49) of no more than 75.

5.8 Direct Tension testing is not required, unless otherwise required in this specification.

Requirements for PG Modified Binder. Furnish PG Modified Binder according to the requirements of Table 702.01-1 by modifying a non-oxidized, non-air blown, neat asphalt binder by using a styrene butadiene latex rubber compound (SBR polymer), a styrene butadiene styrene polymer block copolymer

(SB, SBS polymer), an ethylene/ nbutyl acrylate/ glycidyl methacrylate copolymer (Elvaloy) as specified or Ground Tire Rubber (GTR) according to Supplemental Specification 887. For SB, SBS products the polymer supplier will certify to the refiner and Contractor that the polymer used meets a minimum 68 percent by weight butadiene content. Perform SB, SBS, Elvaloy or GTR modification prior to shipment to the asphalt concrete mixing plant (pre-blend). Perform SBR modification at the asphalt concrete mixing plant (post-blend) or prior to shipment to the asphalt concrete mixing plant (pre-blend) where allowed by specification.

Polyphosphoric acid (PPA) is allowed in PG binders as follows. PPA is a polymer of orthophosphoric acid. When using PPA ensure all the applicable requirements of the required PG binder in Table 702.01-1 are met. Ensure PPA does not contain water. To retain Supplement 1032 certification suppliers of PPA modified asphalt will provide a written certification to OMM that the amount of PPA used is less than 1.0% by weight of neat binder. Suppliers of PPA can have their Supplement 1032 certification removed for not following the above PPA requirements.

For each project, the PG Modified Binder supplier will give the Contractor a handling guide specifying temperature, circulation, shelf life, and other requirements for assuring the PG Modified Binder will perform as desired. Give this handling guide to the Monitoring Team and place a copy in the plant control room and plant laboratory.

If PG Modified Binder is retained at the asphalt concrete mixing plant for more than two weeks before use or beyond the supplier recommended shelf life, whichever is less, a top and bottom sample test (material property difference between samples taken from the top and bottom of the storage tank) will be performed by the Laboratory on samples retrieved by the Contractor at the District's direction. Do not use material on hand until approved.

Table 702.01-1
Material Requirements for PG Modified Binder

Test / Requirement	SBR Polymer		Pre Blended Binder		Note
Final PG Binder Grade	70-22M (a, b)	64-28 (b)	70-22M (a,k)	76-22M (a,k)	c
Final PG Binder Grade			64-28 (a)		
Actual Pass Temperatures	Report		Report		i
RTFO Mass Loss, percent max	0.5		0.5	0.5	d
Phase Angle, max	78		80	76	d
Elastic Recovery, min			65	75	e,d
Toughness, in. lb	125	105			f, d
Tenacity, in lb.	70	80			f, d
Elongation, in. min	20	20			f, d
Ductility, in. min	28	28			j, d
Separation, F max	10		10		g,d
Homogeneity			None Visible		h, d

- a. Pre-blended Binder. Use a base neat asphalt binder that is a -22 grade for 70-22M and 76-22M. Use a base neat asphalt binder that is a -28 grade for 64-28. 64-28 can be neat, PPA modified or modified with SB, SBS or Elvaloy. Ensure SB, SBS or Elvaloy modified 64-28 meets all requirements listed.
- b. Post-blended Binder made from neat Supplement 1032 certified or preapproved standard PG Binder grade and SBR solids amount equal to or above 3.5 percent by weight of total binder to achieve the PG Binder grade. Ensure all listed properties are met.
- c. Without Direct Tension, graded with actual pass temperatures
- d. PG Modified Binder

- c. ASTM D 6084, 10cm @ 77 °F (25 °C), hold 5 min. before cutting, on RTFO material
- f. ASTM D 5801, 50cm/min @ 77 °F (25 °C)
- g. Softening point difference of top and bottom of tube sample conditioned at 340 °F (171 °C) for 48 hours. Compatibility of polymer and neat binder is sole responsibility of supplier. Formulate PG Modified Binder to retain dispersion for 3 days minimum.
- h. Heat a minimum 400 gram sample at 350 °F (177 °C) for 2.5-3 hours. Pour entire sample over a hot No 50 (300 µm) sieve at 340°F (171 °C). Look for retained polymer lumps.
- i. Actual high and low temperature achieved by PG Modified Binder beyond required grade, but will not grade out to the next standard PG Binder grade for low temperature.
- j. ASTM D 113, @ 39 °F (4 °C), 1 cm/min
- k. SB, SBS, Elvaloy or Supplemental Specification 887 GTR

702.05

On page 662, **Replace** section 702.05 Asphalt Primer for Waterproofing with the following:

702.05 Asphalt Primer for Waterproofing. Provide asphalt primer for waterproofing according to ASTM D 41.

Furnish materials according to the Department's Qualified Products List (QPL).

702.06

On page 663, **Replace** section 702.06 Asphalt for Waterproofing with the following:

702.06 Asphalt for Waterproofing. Provide asphalt for waterproofing according to ASTM D 312, Type III.

Furnish materials according to the Department's Qualified Products List (QPL).

702.13

On page 663 and 664, **Replace** section 702.13 Rubberized Asphalt Emulsion with the following:

702.13 SBR Asphalt Emulsion. Provide material consisting of asphalt emulsion SS-1, SS-1h, CSS-1 or CSS-1h per 702.04 and Supplement 1032, blended with SBR emulsion per 702.14, to produce a residual mixture of asphalt binder and SBR solids having a composition of 97.0 ± 0.3 percent asphalt binder and 3.0 ± 0.3 percent SBR solids by weight.

Furnish a certification to the Engineer and signed by the contractor containing the following:

- A. The weight of SBR emulsion blended with the asphalt emulsion.
- B. The weight of asphalt emulsion blended with the SBR emulsion.
- C. The SBR emulsion manufacturer certification per 702.14.
- D. The percent of asphalt binder in the asphalt emulsion (residue by distillation).
- E. The percent of SBR solids in the SBR emulsion.
- F. The percent of SBR solids in the mixture of asphalt binder residue and SBR solids.
- G. Name of Certified asphalt emulsion producer and asphalt emulsion.

Determine the weight of the SBR emulsion to be added to a designated weight of asphalt emulsion to provide the percent of SBR solids in the mixture of asphalt residue and SBR solids using the following formula:

$$X = \frac{0.0309(B)(W)}{(A)}$$

where:

- X = pounds (kilograms) of SBR emulsion
- A = percent SBR solids in the SBR emulsion
- B = percent of asphalt residue of the asphalt emulsion
- W = pounds (kilograms) of the asphalt emulsion

For field blending, ensure the asphalt emulsion and SBR emulsion are thoroughly mixed as follows before application: Add to the distributor the asphalt emulsion and the required amount of the SBR emulsion of the appropriate SBR emulsion type (i.e. cationic or anionic). Heat and circulate the distributor contents for at least 30 minutes to ensure complete blending. Re-circulate the distributor contents for 10 minutes just prior to application. If the distributor has set for 12 hours without circulation, repeat the heating and circulating of the distributor contents for 30 minutes prior to application.

Draw samples of the mixed SBR and asphalt emulsion after mixing the materials as indicated above.

702.14

On page 664, **Replace** the entire section with following:

702.14 SBR Emulsion. Ensure the SBR emulsion is a cold polymerized Styrene Butadiene synthetic rubber (SBR) in latex form specifically compounded for use in asphalt binders and asphalt emulsions. Ensure the manufacturer of the SBR emulsion furnishes a written certification of the total SBR solids content of the SBR emulsion and actual test results showing compliance with both of the following requirements:

A. SBR Emulsion:

Type of SBR Emulsion:	Anionic	Cationic
SBR solids Styrene Butadiene Ratio	27±5 : 73±5	27±5 : 73±5
Total SBR solids, % by weight	60-72	60-72
SBR solids Residual Styrene, % by weight	0.1 max	0.1 max
Ash, % of total SBR solids by weight	3.5 max	3.5 max
pH	9-11	4-6

B. Combination of 3.0 – 4.0 % SBR solids with 96.0 – 97.0 % PG 64-22 meeting 702.01 by weight:

- Toughness inch-pounds (N×m), Minimum..... 133 (15)
- Tenacity, inch-pounds (N×m), Minimum.....80 (9)

702.16 Polymer Emulsified Binder.

On page 665, **Replace** the table and table notes in this section with the following:

702.16 POLYMER EMULSIFIED BINDER

Emulsion (AASHTO T 59)	Type A (b)	Type B (b,c,g)
Saybolt Furol Viscosity	100-550 (50 °C)	20-100 (25 °C)
Storage stability, 24 hrs., % difference, max (a)	1	1
Demulsibility, 35 ml of 0.8% Dioctyl Sodium Sulf., min	50	60
Demulsibility, 35 ml of 0.02N, CaCl ₂ , %, min		60
Sieve test, (distilled water), %, max	0.1	0.05
Distillation to 190 °C, residue % solids (d)	68	63
Oil distillate, %, max	2	2
Distillation Residue		
Penetration, 100g, 5 sec @77 °F(25°C) AASHTO T 49	70-100	90-150
Softening point, ° C, min AASHTO T 53	60	
Solubility in TCE, %, min ASTM D 2042 or D 5546	97.5	97.5
Elastic Recovery, 50 °F (10° C), %, min AASHTO T 301, (e),(g)	70	58
Toughness/Tenacity, 77 °F (25° C), 50 cm/min, Nm ASTM D 5801 (f)	report 16.0/ 9.0	
Ductility, 39 °F (4° C), 1cm/min, min AASHTO T 51, (f)	70	

Notes:

- (a) After standing undisturbed for 24 hours, the surface will show no white, milky colored substance, but will be a smooth homogeneous color throughout.
- (b) CRS-2P, test within 20 days of project sampling. Limits for both certified source and project samples.
- (c) HFRS-2P, test within 20 days of project sampling.
- (d) See Supplement 1013.
- (e) Straight molds. Hold at test temperature for 90 minutes. Place in ductilometer and elongate 10 cm at 5 cm/min. Hold for 5 minutes and cut. After 1 hour retract the broken ends to touch and note elongation in cm (X). Percent Recovery = $((10-X)/10) \times 100$.
- (f) SBR
- (g) SBS, SB

703.01

On page 668, **Add** the following text:

Pre-qualified Aggregate Supplier Program (Supplement 1069). Provide aggregate materials to the Ohio Department of Transportation from pre-qualified suppliers. The aggregate materials covered by the pre-qualified aggregate supplier program are those referenced to in the 703 section of the Construction and Material Specifications (CM&S).

703.02 Aggregate for Portland Cement Concrete, B. Coarse Aggregate.

On page 673, add the following after the last table in Item 2:

Additional requirement for ACBFS aggregate:

Sulfur as S, Max. (ASTM C114) 2.0%

703.14

On page 680, Replace 703.14 with the following:

703.14 Non Pavement Open-Hearth, Electric Arc Furnace, and Basic Oxygen

Furnace Steel Slag Aggregate Use. Provide steel slag according to the following requirements.

1. Non-confined Applications. When using OH, EAF, and BOF slag in applications

where the steel slag will not be confined, ensure that the slag meets the requirements in 703.14.A (deleterious substances and crushing), and in 703.14.B (aging and stockpiling requirements).

Recycled steel slag from Department or non-Department projects may be used in applications where the recycled steel slag will not be confined.

2. Confined Applications. When using OH, EAF, and BOF slag in applications where the steel slag will be confined, ensure the steel slag meets all requirements of 703.14. The use of recycled steel slag from Department or non-Department projects is not allowed in confined applications.

A. Deleterious Substances (soft pieces). Deleterious substances include soft lime, lime oxide, or magnesia agglomerations or any foreign materials prone to rapid disintegration under construction processing and weathering conditions.

Furnish steel slag with less than 3 percent deleterious substances (soft pieces) by weight.

The Department will use Supplement 1029 (hand crushing of soft pieces) to determine the soft pieces. Crushing of steel slag is not allowed.

B. Aging and Stockpiling Requirements. Stockpile and age all steel slag as follows:

1. Grade and stockpile the material into maximum size piles of 25,000 ton (23,000 metric tons). Before and during the stockpiling operation, add water to these materials to provide a uniform moisture content not less than their absorbed moisture. Ensure that the stockpile is maintained in a moist condition during the required stockpiling period.

2. Ensure that the producer mixes the stockpile when the outside surface of the pile has crusted over. The Department will inspect the stockpile every 2 months to ensure no crusting occurs. Do not mix frozen stockpile material. Suspend the aging period when the stockpile is frozen for more than one month.

3. Ensure that this aging period is at least 6 months in duration and starts over if any new material is added to the pile during the aging period.

C. Identification of Steel Slag. Clear, definitive, and undisputable identification of the proposed material being steel slag is required.

The producer will show the Department evidence that the material supplied is steel slag.

This information will consist of, but is not limited to, the following:

1. Steel producer.
2. Production dates.
3. Production rates.
4. Stockpiling dates.
5. Type of steel furnace(s).
6. All known Department and non-Department projects where the material was previously used.

This identification of steel slag and the source may be supplemented by other information approved by the Department or by using 10 years of good performance data. Ensure that the producer submits to the Department projects where the steel slag has been used without expansion or tufa problems. The Department will review the above projects as part of the identification approval process.

D. Tufa Performance Verification of Steel Slag. Tufa is a precipitate form of calcium carbonate that can clog up the underdrain systems. Some steel slag sources clog up underdrain systems and some do not. Tufa performance verification is based on field performance and Department's inspection of the underdrain systems.

Tufa performance verification is required.

Ensure that the producer submits past projects that are at least 10 years old that used the proposed steel slag source to the Department. The Department may consider projects that are less than 10 years old for tufa performance verification if it can be determined by the Department that the age of the steel slag incorporated in the project was 10 years old or greater. Ensure the producer supplies the Department with construction plans with the underdrains and underdrain outlets marked on the plans, or other suitable method, approved by the Department, showing the underdrain system. Ensure the producer marks the underdrain outlets in the field for inspection. The Department will inspect the underdrain systems for tufa deposits. If tufa deposits are found in the outlets or in the underdrain system, the Department will reject the steel slag source.

E. Expansion Testing of Steel Slag. After the aging and stockpiling requirements are met, expansion testing is required for steel slag.

Perform expansion testing according to Pennsylvania Department of Transportation PTM No. 130, the ODOT equivalent to this test or expansion testing acceptable to the Department.

Ensure that the producer hires an independent AASHTO accredited and Department approved laboratory to perform at least half of the expansion testing. At the producer's option, up to half of the required expansion testing may be performed by the producer's laboratory. The Laboratory will observe the expansion testing and approve each independent and producer laboratory.

Perform expansion testing for every 2500 tons (2300 metric tons) or fraction thereof of the material stockpiled in accordance with 703.14.B. For steel slag less than 10 years old, retain a split portion of the expansion sample. Reduce the split sample to 5 lbs (2500 g) and test for total percent MgO by X-Ray florescence and total percent periclase (hard burned MgO) by X-Ray diffraction.

The maximum allowable total expansion for each test is less than 0.50 percent. If any one test fails in the stockpile, the Department will reject the entire stockpile.

When sampling for expansion, ensure that the producer notifies the Department at least 48 hours before the sampling. The Department will verify that the sample came from the correct stockpile and take independent split samples, if required.

Submit the expansion test data and a suitably presented summary of the expansion test data to the Department for approval. Submit X-Ray florescence and X-Ray diffraction data to the Department. The Department reserves the right to perform independent testing to verify the laboratory results at any time.

The Department expansion test data takes precedence over the producer or independent laboratory expansion testing results in the event of a conflict. The Department will make the final determination on all conflicting data.

If the material fails the expansion testing, then stockpile the material for a minimum of 2 additional months from the date of last sampling and retest for expansion. Only materials that pass the expansion test are approved for use.

703.16

On pages 682 and 683, **Replace** the paragraph that begins "Furnish OH, EAF, and BOF slag ..." and the paragraphs numbered 1 and 2 that follow with the following text:

Furnish steel slag according to 703.14.

When using steel slag, RPCC, or RACP, completely blend it with at least 30 percent natural soil or natural granular material.

703.17

On pages 684 and 685, **Replace** the words "OH slag" with "steel slag" in 703.17 (six replacements).

705.13

On page 691, **Add** the following:

705.13 Neoprene sheeting. Provide material conforming to the following:

Test Description	Specification	Requirement
Thickness (Inches)	51	.01
trengh, Grab (lbs.)	51	(Long. X Trans.)
strip, 1" wide x 2" long (lbs.)	51	
ngth (psi)	51	
g, 70 hr., 212°F, 180° bend without cracking	136	g of coating
erature brittleness, 1 hr., -40°F, bend around ¼" mandrel	136	g of coating

Furnish material according to the Department's Qualified Products List (QPL).

706.051

On page 715, **Delete** list item 1, that begins "All structural design according to section 900 ..." and renumber the remaining list items from 2 through 10, to 1 through 9.

On page 716, **Replace** item 7.1 with the following:

7.1 Design according to *AASHTO LRFD Bridge Design Specifications*, Section 12.14. Include a future wearing surface loading of 60 psf.

706.052

On page 719, **Delete** list item 1, that begins "All structural design according to section 900 ..." and renumber the remaining list items from 2 through 10, to 1 through 9.

On page 719, **Replace** list item 2 that begins "For side mounted guardrail, ..." and replace it with the following:

2. The corrosion inhibitor being used, if any, and dosage rate. Dosage rate will be approved by the Laboratory.

On page 720, **Replace** item 7.1 with the following:

7.1 Design according to *AASHTO LRFD Bridge Design Specifications*, Section 12.14. Include a future wearing surface loading of 60 psf.

706.053

On page 723, **Add** section 706.053 after the end of 706.052 as follows:

706.053 Precast Reinforced Concrete Round Sections. Provide precast reinforced concrete elliptical and circular arch sections according to ASTM C 1504, with the following modifications:

This item shall consist of manufacturing precast reinforced concrete elliptical and circular arch sections for culverts.

Ensure that manufacturers of precast concrete members are certified according to Supplement 1073.

5. Ensure the manufacturer submits design calculations, a structural load rating and shop drawings for review and approval by the Department. Do not produce any units until receiving approval. Submit a minimum of five copies of the drawings. Allow a minimum of 4 weeks for approval. Ensure the shop drawings include the following:

1. Load rate the structure according to the requirements of section 900 of the Department's Bridge Design Manual.
2. All material specifications.
3. Plan view.
4. Elevation views.
5. Headwall and wingwall attachment requirements.
6. Dimensions.
7. All maintenance of traffic phases.
8. Section sizes.
9. Design handling strength.

The manufacturer may modify an approved shop drawing and resubmit for approval to the Department.

Ensure that the shop drawings also include the following special information as required:

1. For top mounted guardrail, the guardrail plate and bolt locations are shown in the plan view. Holes shall be a minimum of 6 inches (150 mm) from a joint.
2. The corrosion inhibitor being used, if any, and dosage rate. Dosage rate will be approved by the Laboratory.

6.2.1 In addition, provide cement according to 701, except 701.07.

6.2.2 Only use fly ash conforming to 701.13.

6.3 Provide aggregates conforming to the quality requirements of 703.02.

6.4 Use chemical admixtures conforming to 705.12. Use a corrosion inhibitor unless epoxy coated reinforcing steel is used. An approved list of corrosion inhibiting admixtures is on file at the Laboratory. Manufacturers should recognize that the corrosion inhibitors and admixtures may have an effect on strength, entrained air content, workability, etc. of their concrete mixes. The manufacturer's choice of one of these corrosion inhibitors does not alleviate meeting all design requirements of this structure.

6.4.1 Provide air-entraining admixture conforming to 705.10.

6.5 Provide epoxy coated reinforcement according to 709.00, Grade 60 (Grade 420), or 709.14. In lieu of epoxy coated reinforcement, an approved corrosion inhibiting admixture may be added to the concrete at the approved dosage; and provide reinforcement according to 709.01, 709.03 or 709.05; Grade 60 (Grade 420) or 709.08, 709.10, 709.11 or 709.12. Provide epoxy or galvanized coated connections when connecting a precast structural unit into a cast-in-place structural component or between segments of adjacent precast structural units either manufactured as separate units or across construction joints when manufactured as one unit. Provide epoxy coated reinforcement according to 709.00 or 709.14, when these connections are designed using reinforcing steel. Provide galvanized coatings according to 711.02, when these connections are designed using connection plates, hardware or concrete inserts.

7.1 Modify the first sentence as follows: Design according to *AASHTO LRFD Bridge Design Specifications*, Section 12.14. Include a future wearing surface loading of 60 psf.

7.2 Ensure that the concrete cover dimension over the outside circumferential reinforcement is a minimum of 2 inches (50 mm). Ensure that the concrete cover dimension over the inside circumferential reinforcement is a minimum of 1 1/2 inches (38 mm). The clear distance of the end circumferential wires shall not be less than 1 inch (25 mm) nor more than 2 inches (50 mm) from the ends of the sections. Reinforcement shall be assembled utilizing single or multiple layers of welded wire fabric (three-layer maximum), or utilizing a single layer of deformed billet-steel bars. The welded wire fabric shall be composed of circumferential and longitudinal wires and shall contain sufficient longitudinal wires extending through the section to maintain the shape and position of reinforcement. Longitudinal distribution reinforcement may be welded wire fabric or deformed billet-steel bars. The ends of the longitudinal distribution reinforcement shall be not more than 3 inches (75 mm) from the ends of the sections.

Form the outside and inside circumferential reinforcing steel for the arch such that it is approximately equal to the configuration of the arch shape.

7.3 In addition, tension splices in the circumferential reinforcement shall not be made. For splices other than tension splices, the overlap shall be a minimum of 12 inches (300 mm) for welded wire fabric or deformed billet steel bars. The spacing center-to-center of the circumferential wires in a wire fabric sheet shall be not less than 2 inches (50 mm) or more than 4 inches (100 mm). For the wire fabric, the spacing center-to-center of the longitudinal wire shall not be more than 8 inches (200 mm). The spacing center-to-center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be not more than 16 inches (410 mm).

8.1 Ensure the sections are produced with butt ends. The ends of the sections shall be such that when the sections are laid together they will make a continuous line of sections with a smooth interior free of appreciable irregularities, all compatible with the permissible variations in these Specifications and section 11 of ASTM C 1504. Provide a 3/4 × 3/4 inch (19 × 19 mm) minimum chamfer on the inside and outside surface at the sections joint.

Ensure that the design of the arch in its final constructed location is structurally continuous throughout the arch unit providing for flexural, compressive and shear force transfers. For arches that gain structural continuity by a cast in place closure at the project site, provide concrete with the same compressive strength as the precast arch. In addition, the cast in place closure shall provide continuity in the transverse direction (90 degrees to the span) along the lay length of the arches.

9.1 Ensure that the aggregate, cement, and water are manufactured according to 499.06, 499.07, and 499.09.

Ensure that the temperature requirements of 511.08 and 511.15 are met.

Ensure that the proportion of Portland cement is not less than 564 pounds per cubic yard (335 kg/m^3) of concrete.

If used, add the corrosion inhibitor as an aqueous solution. Consider the water in the solution as mixing water for the purpose of determining the water-cement ratio of concrete.

9.2 Cure the arch sections in the forms for the length of time required to obtain the specified minimum design handling strength as defined in the shop drawings. Test a cylinder to check each section's design handling strength. Repeat this test as often as needed. Only one cylinder passing will ensure that the design handling strength has been met. If the shop drawing shows no design handling strengths, then the minimum handling strength is assumed to be 100 percent of the design strength. Ensure that the curing then continues either in or out of the forms until the specified minimum design strength is met.

9.2.1 Steam curing is an accelerated cure by low pressure steam or radiant heat within a suitable insulated enclosure to contain the live steam or heat. The initial application of the steam or heat is from 2 to 4 hours after the final placement of concrete to allow the initial set to take place. If retarders are used, increase the waiting period to 4 to 6 hours. As an alternative, determine the actual time of initial set according to ASTM C 403. Do not start curing until the actual time to initial set has elapsed.

During the waiting period, ensure that the temperature within the curing enclosure is not less than 50°F (10°C).

During the initial application of live steam or radiant heat, ensure that the ambient temperature within the curing enclosure increases at an average rate not exceeding 40°F (22°C) per hour until the curing temperature is reached.

Ensure that the maximum curing temperature does not exceed 150°F (65°C). Hold the design temperature until the concrete has reached the desired design strength. Do not direct the application of live steam on the concrete forms so as to cause localized high temperatures.

9.2.2 Provide water curing according to 511.15 and 511.17, Method A.

9.2.3 Delete.

9.3 Ensure that all forms are in place until the design handling strength is met.

Holes for handling or setting are not permitted. Do not move members before the design handling strength of the concrete is reached, or shipped before the design strength of the concrete is reached. Ensure that the manufacturers have equipment necessary to handle and transport the pieces without damaging them.

10 Ensure that the hardened concrete contains a minimum of 4 percent entrained air.

10.1 Cores drilled from the section are not permitted.

10.2.1 Keep the cylinders and matching arch section together to guarantee the cylinders are matched with the corresponding culvert section; or, upon agreement by the Department, keep the cylinders at a location that will provide the same environment as the arch sections.

10.2.2 For each section of the arch structure, produce and mark at least four cylinders so that they are identifiable with the matching arch section.

10.2.3 Conform to Supplement 1073 for acceptance.

10.2.3.1 Ensure that cylinder strengths conform to Supplement 1073.

11.0 The under-run in length of a section shall not be more than 1/2 inch (13 mm).

All changes to the project resulting from the manufacturer's dimensional changes in the structure are at no charge to the Department.

Ensure that the sections are free of fractures spalls and chips. Ensure that all surfaces have a smooth and regular finish being defined as a 1/4 inch variation within 4 feet (6 mm variation within 1.2 m).

11.1 The internal dimensions shall vary not more than 1 percent from the design dimensions or more than 1 1/2 inches (38 mm), whichever is less. The haunch dimensions shall vary not more than 3/4 inch (19 mm) from the design dimension.

11.4 Ensure that the maximum variation in the position of the reinforcement is 3/8 inch (9 mm), except that the cover over the reinforcement for the external surface of the top is not less than 2 inches (50 mm). The above tolerances or cover requirements do not apply to mating surfaces at the joint.

11.5 Resubmit any change in reinforcement from the shop drawings for approval.

11.6 All interior and exterior arch surfaces shall have a smooth steel form finish.

12.0 Make repairs according to the Department's requirements. The Department will not make additional payments for arch repairs. Repairs are acceptable if, in the opinion of the Department, the repairs are sound, properly finished, and cured.

13.0 The Department may perform inspection at the plant conforming to Supplement 1073 but final inspection and acceptance will be at the project site.

Furnish precast concrete components from suppliers certified according to Supplement 1073.

14.0 Form seams and slight surface irregularities that are expected from a steel panel forming system will not be cause for rejection. In addition, hairline cracks less than 0.01 inch (0.25 mm) will not be cause for rejection.

15.1 Ensure that the location of the product marking is on the interior of the arch section 4 feet (1.2 m) above the base of the arch. Measure the 4 feet (1.2 m) from the base of the arch along the circumference of the interior surface.

Add the product marking upon removal of the forms.

The manufacturer may be required to repeat the product markings before the project is final.

707.00

Page 726, Revise the first paragraph to the following:

707.00 Acceptance. Corrugated metal pipe conforming to 707.01, 707.02, 707.03, 707.04, 707.05, 707.07, 707.11, 707.12, 707.13, 707.14, 707.15, 707.18, 707.19, 707.20, 707.21, 707.22, 707.23, 707.24, and 707.25 may be accepted for shipment to and immediate use in construction projects when provided from suppliers certified according to Supplement 1019.

707.01

On page 726, **Delete** the following sentence "7.5 Ensure either helical lock or continuous welded seams are used."

707.02

On page 729 in the table, **Change** the wall thickness for a 142×91 pipe arch from 0.169 to 0.168 inch.

707.18, 707.19, 707.20

On page 734, **Add** the subsections:

707.18 Polymer Precoated, Galvanized Steel Conduits with precoated galvanized smooth steel interior liner. Provide Type IA pipe which has a corrugated exterior with a smooth interior liner. Provide corrugated exterior conduits and smooth liners according to 707.04 with the following modifications to AASHTO M 245:

7.5.1 Provide Polymer Precoated, Galvanized Steel Conduits with precoated galvanized smooth steel interior liner pipe with plain cut helical ends. Match mark ends. Install conduit so that match marks align and are in accordance with the layout drawings supplied by the manufacturer.

Provide external flat sheet coupling bands with a minimum wall thickness (coated) of .064 inch and that are a minimum of 12" wide. Ensure coupling bands are polymer precoated, galvanized steel.

9.3 Ensure a soil tight joint by the use of a flat gasket conforming to ASTM D1056 2B1 that is a minimum of 12" wide and centered over the joint.

707.19 Aluminum Coated Steel Conduits with precoated galvanized smooth steel interior liner. Provide Type IA pipe which has a corrugated exterior with a smooth interior liner. Ensure that the interior liner conforms to 707.04. Ensure that the corrugated exterior conduit material conforms to AASHTO M274. Provide corrugated exterior conduits per 707.01 or 707.02 with the following modifications to AASHTO M36:

7.7.1 Provide Aluminum Coated Steel Conduits with precoated galvanized smooth steel interior liner pipe with plain cut helical ends. Match mark ends. Install conduit so that match marks align and are in accordance with the layout drawings supplied by the manufacturer.

9.2 Provide external flat sheet coupling bands with a minimum wall thickness (coated) of .064 inch and that are a minimum of 12" wide. Ensure coupling bands are aluminum coated steel.

9.5 Ensure a soil tight joint by the use of a flat gasket conforming to ASTM D1056 2B1 that is a minimum of 12" wide and centered over the joint.

707.20 Galvanized Coated Steel Conduits with precoated galvanized smooth steel interior liner. Provide Type IA pipe which has a corrugated exterior with a smooth interior liner. Ensure that the interior liner conforms to 707.04. Ensure that the corrugated exterior conduit material conforms to AASHTO M 218. Provide corrugated exterior conduits per 707.01 and 707.02 with the following modifications to AASHTO M36:

7.7.1 Provide Galvanized Coated Steel Conduits with precoated galvanized smooth steel interior liner pipe with plain cut helical ends. Match mark ends. Install conduit so that match marks align and are in accordance with the layout drawings supplied by the manufacturer.

9.2 Provide external flat sheet coupling bands with a minimum wall thickness (coated) of .064 inch and that are a minimum of 12" wide. Ensure coupling bands are galvanized coated steel.

9.5 Ensure a soil tight joint by the use of a flat gasket conforming to ASTM D1056 2B1 that is a minimum of 12" wide and centered over the joint.

707.31

On page 738, **Replace** 707.31 with the following:

707.31 Corrugated Polyethylene Drainage Tubing. Provide corrugated polyethylene drainage tubing according to AASHTO M 252 Type C, and CP. If Type S or SP is specified, provide corrugated polyethylene smooth lined pipe conforming to 707.33.

Only provide materials from manufacturers certified according to Supplement 1066.

707.32

On page 738, **Replace** the words "Supplemental Specification" in the second sentence in 707.32 with the word "Supplement".

707.33

On pages 738 and 739, **Replace** 707.33 with the following:

707.33 Corrugated Polyethylene Smooth Lined Pipe. Provide smooth lined corrugated polyethylene pipe, closed profile polyethylene pipe, couplings, and fittings conforming to AASHTO M 294, with the following modifications:

Provide Type S or Type D. If perforated is specified, provide Type SP.

1.1.1 Nominal sizes of 4 to 60 inches (100 mm to 1500 mm) are included.

7.2.1 In addition, nominal diameters of 4, 6, 8, and 10 inches (100, 150, 200, and 250 mm) are included.

7.2.2 For the additional nominal diameters listed for 7.2.1 the inner liner of Type S and SP pipe, and both inner and outer walls of Type D pipe shall have the following minimum thicknesses:

Diameter		Inner Thickness	Wall
(in)	(m)	(in)	(mm)
4	100	0.020	0.50
6	150	0.020	0.50
8	200	0.025	0.60
10	250	0.025	0.60

7.4 For the additional nominal diameters listed for 7.2.1 the pipe shall have a minimum pipe stiffness at 5 percent deflection as follows:

Diameter		Pipe Stiffness	
(in)	(m)	(P/I)	(N/m/m)
4	100	50	340
6	150	50	340
8	200	50	340
10	250	50	340

7.8.5 In addition, couplings for corrugated pipe shall be bell and spigot or bell-bell couplings, or clamp-on bands, for all sizes up to and including 36-inch (900 mm) diameter.

Couplings for Type D pipe shall be a bell-bell or bell and spigot coupling. The coupling may be welded on one end of each length of pipe by means of a full circumferential weld. Stitch welds are not permitted.

Couplings for pipe diameters 42 inches (1050 mm) and larger shall be bell-bell or bell and spigot.

11.1.3 In addition, pipe with diameters 4 through 10 inches (100 through 200 mm) inclusive may be marked "AASHTO M252".

12.1 Only provide materials from manufacturers certified according to Supplement 1066.

707.41

On page 739, **Replace** 707.41 with the following:

707.41 Smooth-Wall Polyvinyl Chloride Underdrain Pipe. Provide smooth wall perforated and non-perforated PVC plastic pipe and fittings according to ASTM F 758, Type PS 46 minimum, with the following modifications:

7.2.4 Perforated pipe shall have a minimum of four rows of perforations.

Furnish materials according to the Department's Qualified Products List (QPL).

707.42

On pages 739 and 740, **Replace** 707.42 with the following:

707.42 Polyvinyl Chloride Corrugated Smooth Interior Pipe. Provide PVC corrugated smooth interior pipe, joints and fittings according to ASTM F 949, with the following modifications:

5.2.4 Perforated pipe may be specified.

Furnish materials according to the Department's Qualified Products List (QPL).

707.43

On page 740, **Replace** 707.43 with the following:

707.43 Polyvinyl Chloride Profile Wall Pipe. Provide PVC open profile wall pipe and fittings with integral bell joints according to ASTM F 794, with the following modifications:

7.2.4 Only molded or fabricated fittings conforming to the requirements of Specification F 794 may be used.

7.5 Ensure a pipe stiffness of 46 or greater.

Furnish materials according to the Department's Qualified Products List (QPL).

707.44

On page 740, **Delete** 707.44.

707.45

On pages 740 and 741, **Replace** 707.45 with the following:

707.45 Polyvinyl Chloride Solid Wall Pipe. Provide PVC solid wall pipe and fittings with nominal size of 4, 6, 8, 10, 12 and 15-inch (100, 150, 200, 250, 300 and 375 mm) diameter according to ASTM D 3034, SDR 35, with the following modifications:

10.1 The retest provisions do not apply.

Furnish materials according to the Department's Qualified Products List (QPL).

707.46

On page 741, **Replace** 707.46 with the following:

707.46 Polyvinyl Chloride Drain Waste and Vent Pipe. Provide PVC drain, waste, and vent pipe and fittings according to ASTM D 2665, with the following modifications.

8.1 The retest provisions do not apply.

Furnish materials according to the Department's Qualified Products List (QPL).

707.47

On page 741, **Replace** 707.47 with the following:

707.47 ABS and Polyvinyl Chloride Composite Pipe. Provide ABS and PVC composite pipe and fittings according to ASTM D 2680, with the following modifications.

11.1 The retest provisions do not apply.

13.1 Furnish certified test data as defined in 101.03 to the Engineer.

707.48

On page 741, **Add** the following:

707.48 Polyvinyl Chloride Large-Diameter Solid Wall Pipe. Provide PVC solid wall pipe and fittings according to ASTM F 679, with the following modifications:

8.1 The retest provisions do not apply.

Furnish materials according to the Department's Qualified Products List (QPL).

707.51

On page 741, **Replace** 707.51 with the following:

707.51 ABS Drain Waste and Vent Pipe. Provide ABS schedule 40 plastic drain, waste and vent pipe and fittings according to ASTM D 2661, with the following modifications:

6.4.1 Perform inspection at the project site.

9.18.1 The retest provisions do not apply.

10.1 Furnish certified test data as defined in 101.03 to the Engineer.

707.52

On page 741, **Replace** 707.52 with the following:

707.52 ABS Sewer Pipe. Provide ABS sewer pipe and fittings according to ASTM D 2751, with the following modifications:

9.1 Perform inspection at the project site.

10.1 The retest provisions do not apply.

11.1 Furnish certified test data as defined in 101.03 to the Engineer.

707.62, 707.65, and 707.69

On page 741, **Add** sections 707.62, 707.65, and 707.69 after the end of 707.52 as follows:

707.62 Polypropylene Corrugated Single Wall Pipe. Provide polypropylene corrugated single wall pipe for storm sewer pipe from 6 to 30-inch diameters according to ASTM F 2736, with the following modification.

9.1 Provide a letter of certification to cover each shipment of material verifying that it meets specification requirements.

707.65 Polypropylene Corrugated Double Wall Pipe. Provide poly propylene corrugated double wall pipe for non-pressure sanitary sewer and storm sewer pipe from 6 to 30-inch diameters according to ASTM F 2736 and storm sewer pipe from 36 to 60-inch diameters according to ASTM F 2881, with the following modification.

9.1 Provide a letter of certification to cover each shipment of material verifying that it meets specification requirements.

707.69 Polypropylene Triple Wall Pipe. Provide polypropylene triple wall pipe and fittings for non-pressure sanitary sewer and storm sewer pipe from 30 to 60-inch diameters according to ASTM F 2764, with the following modification.

10.1 Provide a letter of certification to cover each shipment of material verifying that it meets specification requirements.

708.01

On page 742, **change** the second paragraph to:

5.1. A green colorant approximately No. 34159 of FS 595C.

708.02.B.1.f

On page 742, **Change** the subsection to:

f. Color. Greenish gray, approximating FS-595C-34159, visual comparison..

708.02.C

On page 743, **Change** the first sentence to:

C. Epoxy Intermediate Coat. Provide a two-part epoxy intermediate coat composed of a base component and curing agent suitable for application over the zinc rich primer.

708.02.C.1.a

On page 743, **Change** the subsection to:

a. Color. White, meeting or exceeding, FS-595C-37875 according to ASTM E 1347.

708.02.D.1.a

On page 744, **Change** the subsection to:

a. Finish, Specular gloss, ASTM D 523. Use Fed. Std. 595C-16440 Gray: 70 % minimum after 3000 hours weathering resistance. Color change less than 2.0 ΔE^* , (C.I.E 1976 $L^*a^*b^*$) ASTM D2244.

708.02.D.1.f.(1)

On page 744, **Change** the subsection table to:

Brown	FS-595C, 10324
Green	FS-595C, 14277
Blue	FS-595C, 15526
[2] Contractor's choice unless specified on plans	

709.08

On page 747, **Change** the first sentence to: Provide cold drawn steel wire for concrete reinforcement according to ASTM A 82 or ASTM A 1064, with the following modification:

709.10

On page 747, **Change** the first sentence to: Provide welded steel wire fabric for concrete reinforcement according to ASTM A 185 or ASTM A 1064.

709.11

On page 748, **Change** the first sentence to: Provide deformed steel wire for concrete reinforcement according to ASTM A 496 or ASTM A 1064.

709.12

On page 748, **Change** the first sentence to: Provide welded deformed steel wire fabric for concrete reinforcement according to ASTM A 497 or ASTM A 1064.

709.13 Coated Dowel Bars

On page 748, **Delete** the third and fourth sentence:

“5.2 is waived. Ensure that the coating thickness is as approved under 2.5 and is within the manufacturer’s stated tolerance”.

711.01

On page 756, **Make** the following changes to the Value for the Min CVN for A709 Gr. 70W steel in the Table:

A709 Gr. 70W	Up to 4 in (100 mm) mechanically fastened or welded	25 ft-lb @ -10 °F ^[1] (34 J @ -23 °C)
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711.07 Steel Castings

On page 757 **Change** the subsection to:

Furnish steel castings according to ASTM A 27/A 27M, Grade 65-35 or Grade 70-36, or AASHTO M103, or ASTM A 148, Grade 90-60, with the following modification:

Ensure that steel casings are free from pouring faults, sponginess, cracks, blow holes, and other defects in positions affecting their strength and value for the service intended. No sharp, unfiltered angles or corners are allowed.

711.23

On page 761 and 762, **Change** the fourth paragraph to:

Ensure that the external connection or distribution plates of laminated bearings are the same material as the attached structural steel and are similarly cleaned and coated. Furnish internal plates according to ASTM A 709 grade 36 or **A1011/A1011M**, SS Grade 36 or Grade 40. Minimum thickness for the internal plates is 0.074 inch (1.88 mm). Debur all plates.

712.01,

On page 764, **Change** the following:

A. Type A. Federal Specification A-A-1923A, and A-A-55614.

B. Type B. Federal Specification A-A-1924A.

The supplier or producer of the anchors will provide a certification showing certified test results of the proof load required in the Federal Specifications .

Furnish materials according to the Department's Qualified Products List (QPL).

712.04.B,

On page 764, **Replace** the first sentence of 712.04.B with the following:

B. Furnish quick lime for soil stabilization that is certified according to Supplement 1087 and according to ASTM C 977, with the following modification:

712.04.C,

On page 765, **Replace** the first table in 712.04.C with the following table:

Combined total calcium oxide and magnesium oxide	50 % minimum
Available calcium hydroxide (rapid sugar test, ASTM C25), plus total MgO content calculated to be equivalent Ca(OH) ₂	30 % minimum
Loss on ignition (carbon dioxide plus moisture, combined and free on as-received basis)	40 % maximum
Free water (as-received basis)	4 % maximum
Sulfur as SO ₃	10 % maximum

712.09,

On page 766, **Replace** 712.09 with the following:

712.09 Geotextile Fabrics. Furnish fabric composed of strong rot-proof polymeric fibers formed into a woven or non-woven fabric. Products must be tested by the National Transportation Product Evaluation Program (NTPEP). The Department will determine acceptance of Type A, B, C and D fabric according to data obtained in the most current NTPEP report— Laboratory Results of Evaluations on Geotextiles and Geosynthetics. The NTPEP testing results must meet or exceed the requirements listed in the table. For all tests except Ultraviolet Exposure, the products Minimum Average Roll Values (MARV), as published in the NTPEP report, must also meet or exceed the requirements listed in the table. If no MARV value is published in the NTPEP report, the

manufacturer must submit to the Department certified test data showing the MARV values for the product will meet or exceed the requirements listed in the table.

Property	Test Method	Required Value	
Type A: Underdrains and Slope Drains			
Minimum tensile strength	ASTM D 4632	80 lb	355 N
Minimum puncture strength ^[1]	ASTM D 6241	140 lb	625 N
	or ASTM D 4833	25 lb	110 N
Minimum tear strength	ASTM D 4533	25 lb	110 N
Apparent opening size	ASTM D 4751		
Soil Type-1: Soils with 50% or less passing No. 200 (75 µm) sieve		AOS ≤ 0.6 mm	
Soil Type-2: Soils with 50 to 85% passing No. 200 (75 µm) sieve		AOS ≤ 0.3 mm	
Minimum permittivity	ASTM D 4491	0.5 sec ⁻¹	
Type B: Filter Blankets for Rock Channel Protection			
Minimum tensile strength	ASTM D 4632	200 lb	890 N
Minimum elongation	ASTM D 4632	15%	
Minimum puncture strength ^[1]	ASTM D 6241	440 lb	1955 N
	or ASTM D 4833	80 lb	355 N
Minimum tear strength	ASTM D 4533	50 lb	220 N
Apparent opening size	ASTM D 4751	AOS ≤ 0.6 mm	
Minimum permittivity	ASTM D 4491	0.2 sec ⁻¹	
Type C: Sediment Fences			
Minimum tensile strength	ASTM D 4632	120 lb	535 N
Maximum elongation	ASTM D 4632	50%	
Minimum puncture strength ^[1]	ASTM D 6241	275 lb	1225 N
	or ASTM D 4833	50 lb	220 N
Minimum tear strength	ASTM D 4533	40 lb	180 N
Apparent opening size	ASTM D 4751	AOS ≤ 0.84 mm	
Minimum permittivity	ASTM D 4491	0.01 sec ⁻¹	
Ultraviolet exposure strength retention ^[2]	ASTM D 4355	70%	
Type D: Subgrade-Base Separation or Stabilization			
Minimum tensile strength	ASTM D 4632	180 lb	800 N
Maximum elongation	ASTM D 4632	50%	
Minimum puncture strength ^[1]	ASTM D 6241	385 lb	1715 N
	or ASTM D 4833	70 lb	310 N
Minimum tear strength	ASTM D 4533	70 lb	310 N
Apparent opening size	ASTM D 4751	Same as Type A	
Permittivity	ASTM D 4491	0.05 sec ⁻¹	

[1] ASTM D6241 is now the standard puncture resistance test required by AASHTO and NTPEP. NTPEP will continue to publish product data, tested under ASTM D4833, until the product is retested under ASTM D6241.

[2] Provide certified test data to the Department. Include strength retention data at 0, 150, 300, and 500 hours

For Type E material, supply fabric conforming to the requirements of AASHTO M288, Section 10, Table 8. The Department will accept Type E material based on certified test data.

All minimum strengths shown are in the weakest principal direction.

Ensure that the fabric is free of any treatment that might significantly alter its physical properties.

During shipment and storage, wrap the fabric in a heavy-duty protective covering to protect it from UV deterioration, direct sunlight, dirt, dust, and other debris.

Furnish materials according to the Department's Qualified Products List (QPL).

712.11,

On page 769, **Delete** 712.11.D, Type D Temporary Erosion Control Mat, and 712.11.H, Type H Temporary Erosion Control Mat.

712.12, 712.13,

On page 771, **Add** the subsections:

712.12 Tied Concrete Block Mat. Furnish materials tested to ASTM D6460. The Department will determine acceptance of Type 1, 2, and 3 based on independent third party test data. The acceptable stability threshold shear values are:

Type 1: 3 lbf/ft² (140 Pa)

Type 2: 5 lbf/ft² (240 Pa)

Type 3: 7 lbf/ft² (340 Pa)

Furnish products according to the Departments Qualified Products List (QPL).

712.13 Articulating Concrete Block Revetment System. Furnish materials according to ASTM D6684 and tested according to ASTM D7277. The Department will determine acceptance of Type 1, 2, 3 based on independent third party test data. The acceptable stability threshold shear values are:

Type 1: 17 lbf/ft² (810 Pa)

Type 2: 20 lbf/ft² (960 Pa)

Type 3: 23 lbf/ft² (1100 Pa)

Furnish products according to the Departments Qualified Products List (QPL).

720

On Page 772, **Replace** the following section in its entirety:

720 DELINEATOR MATERIALS

720.01 Reflectors. For bridge parapet bracket or bridge rail bracket, furnish rectangular reflectors that are a minimum size of 3 x 6 inches (75 x 150 mm) and that consist of reflective sheeting according to 730.192 or 730.193 adhered to an aluminum plate. Furnish white, yellow, or red reflectors as specified. Furnish aluminum plate for reflectors according to ASTM B 209 (B 209M), 6061-T6 with a minimum thickness of 0.060 inch (1.5 mm).

For ground mounted delineators, furnish rectangular reflective sheeting according to 730.192 or 730.193 that is a minimum size of 3 x 6 inches (75 x 150 mm) adhered to a flexible post. Furnish white, yellow or red reflectors as specified.

For surface mounted delineators, furnish a 3 inch (75 mm) wide band of reflective sheeting according to 730.192 or 730.192 adhered completely around a flexible post. Furnish white or yellow reflectors as specified.

Furnish materials according to the Department's Qualified Products List (QPL).

720.03 Flexible Posts. Conform to Supplement 1020.

Furnish materials according to the Department's Qualified Products List (QPL).

721.03

On page 773, **Replace** the entire section with the following.

721.03 Casting Adhesive. Casting adhesives will follow a two-step acceptance procedure.

Step 1 will be materials testing and a flow test.

A. Furnish adhesive material conforming to AASHTO M 237, Type IV, except that the viscosity is 200 to 900 poise at $77 \pm 2^\circ\text{F}$ ($25 \pm 1^\circ\text{C}$) and the unit weight is 11.3 to 11.9 pounds per gallon (1.35 to 1.43 kg/L).

B. For materials conforming to the above requirements provide samples of the adhesives to the Department for flow testing. The casting adhesive flow test will meet the ranges in Table A.

The flow test procedure is:

1. In a standard 2x4 block of pine wood (3.5" wide x 1.5" deep x 22" long) cut a channel in the block that is 3/4" wide by 1/2" deep with a dado blade. The channel will run longitudinally 22 inches long in the center of the 3.5 inch wide face of the wood block. Use tape to block off the ends of the channel.
2. Condition epoxy (Part A and Part B) and the wood block for a minimum of 4 hours at each of the three different temperatures (77° , 100° , and 120°F).
3. Mix Part A and Part B epoxy separately for 15 seconds.
4. Mix Part A epoxy with Part B epoxy, at the manufacturer's required ratio, for 1.5 minutes. The total amount of sample mixed will equal 40ml.
5. Temporarily dam off 6.5 inches of the channel at one end of the wood block. Keep the wood block flat and level with the channel side facing up.
6. Pour mixed product into the blocked off end of the channel for 30 seconds. The product should fill this blocked off volume. Remove the temporary dam.
7. Immediately place wood block with the epoxy filled channel on a 15% grade incline, with epoxy placed at the top of the slope.
8. Immediately start a stop watch.
9. Stop the watch when the material completely stops flowing in the channel.
10. The time and length the epoxy traveled down the channel need to meet the requirements of Table A.
11. This test will be run at each of the 3 established temperatures.

Table 721.03 - A			
	Temperature 77°F	Temperature 100°F	Temperature 120°F
Distance traveled	$10 \leq X \leq 18$	$12 \leq X \leq 20$	$12 \leq X \leq 20$

down 15% incline (inches)			
Time for epoxy to stop flowing on 15% incline (minutes)	$5 \leq X \leq 14$	$2 \leq X \leq 9$	$1 \leq X \leq 4$

Step 2 will include a Department controlled field application and performance test.

The epoxy adhesive will be field evaluated on two ODOT roadway projects in north eastern Ohio. One roadway will be new asphalt pavement and the other will new concrete or concrete that is less than 20 years old. The test sections on each roadway will be a minimum of 2 miles long and carry a minimum of 30,000 ADT. It will be the responsibility of the epoxy manufacturer to find routes in Ohio that meet these requirements and have them installed, at no cost to the Department, as a part of an existing ODOT contract. The casting adhesive will be evaluated after one year of service. Removal of any casting from the roadway after one year will be considered failure of the epoxy adhesive. If no castings are removed from the roadway and the product meets the requirements listed above, the epoxy adhesive will be granted Conditional Approval.

If the product continues to perform satisfactorily after 4 years, the product will be moved to Full Approval. If at any time during Conditional Approval status, the epoxy adhesive fails to perform to the satisfaction of the Department, it will be removed from Conditional Approval status and from further consideration.

Approved and Conditionally Approved materials will be incorporated on the Department's QPL. Only furnish materials listed on the Department's QPL.

725.11C

On page 777, **Deleted** the following after the second paragraph;

"If the ballast is to be wired line to grounded neutral or phase to grounded neutral, the ballast may be either the isolated primary winding design or the auto transformer design.."

725.11C

On page 778, **Deleted** the following after the eighth paragraph;

"Ensure that the starter ceases operation after the lamp has started and that the starter protects itself, the ballast, the capacitor, and the lamp socket against cycling, burned out, broken or missing lamps by ceasing the starting operation after the power has been applied to the luminaire for a period of not less than 3 minutes and no more than ten minutes and not beginning the starting operation again until power has been shut off and reapplied to the luminaire."

726

On Page 791, **Add** the following section in its entirety:

726 BARRIER REFLECTOR MATERIALS

726.01 Barrier Reflectors. Furnish concrete barrier, retaining wall and bridge parapet reflector body housings that are made of acrylic or polycarbonate plastic, or corrosion resistant metal. Ensure that the minimum reflective surface area of the reflector is 7 square inches (4400 mm²).

Furnish white reflectors that reflect the following minimum candela of light at the indicated observation angles for each 1 foot-candle (10.76 lx) of incident light at the indicated entrance angles. Furnish amber reflectors that reflect at least 60 percent of these values.

MINIMUM SPECIFIC INTENSITY, CD/10.76 LX

		Observation Angle (degrees)	
		0.2	2.0
Entrance angle (degrees)	-4	62	0.25
	15	52	0.18

The entrance angle is measured in the horizontal plane between the direction of incident light and normal to the face of the reflector. The observation angle is measured in the vertical plane between the observer's line of sight and the direction of light incident to the reflector face.

Furnish guardrail blackout reflectors that are a minimum size of 4.5 x 10 x 0.125 inches (112.5 x 250 x 3.1 mm) and made of corrosion resistant metal with 1/4" (6 mm) predrilled mounting holes. One or both sides shall be covered with a minimum 4.5 x 5 inches (112.5 x 125 mm) of Type G, H or J reflective sheeting.

Furnish materials according to the Department's Qualified Products List (QPL).

730.017

On page 792, **Replace** "ve10eers" with "veneers" in the first sentence.

730.191

On page 794, **Replace** the section with the following:

730.191 Reflective Sheeting Reboundable. Furnish reboundable reflective sheeting according to Supplement 1049, and according to ASTM D 4956, Type III, IV, VIII, IX or XI, including supplemental requirements S1 and S2, with watermarks or other identification marks inconspicuously incorporated into the face of the sheeting on a repeating pattern if necessary to distinguish the sheeting from other similarly appearing sheetings.

Furnish materials according to the Department's Qualified Products List (QPL).

730.193

On page 795, **Add** "or XI" after "Type IX".

731.06

On page 797, Replace the word “incandescent” with the word “LED” from the last sentence in the first paragraph.

732.01,

On page 797, **Replace** the first and second paragraphs with the following;

732.01 Vehicular Signal Heads, Conventional. Ensure that vehicular traffic signal heads conform to the ITE “Vehicle Traffic Control Signal Heads” standard. In conformance with the above standard, provide signal heads that are of cast nonferrous corrosion resistant metal.

Traffic signals consist of specified assemblies of optical sections containing 8 or 12-inch (200 or 300 mm) nominal diameter lens opening, a housing, a door frame with stainless steel hinge pins and latching device, gasketing, visor, wiring, and includes LED lamp in accordance with 732.04. Retention hardware for LED lamps, if sharing threaded hole with visor hardware, shall consist of minimum 1/2-inch (13 mm) long, set screw with retaining tab and captive wingnut or hex nut. All hardware shall be stainless steel and set screw shall be inserted into signal section door using visible, semi-permanent threadlocking compound. All hardware used to join optical sections together shall be stainless steel. Door hinges and visor mounting hardware shall be stainless steel.

732.01

On page 798, **Add** the following after the first sentence in the fourth paragraph;

“Cable entrance adapters shall be of the tri-stud type with stainless steel hardware. Tethered heads shall use unpainted cast aluminum cable entrance adapters with integral tri-studs (no inserts) and a single mounting hole. Tethered heads shall be shimmed with stainless steel shim washers to eliminate all slack between the span wire and the cable entrance adapter. Free swinging heads shall use cast iron cable entrance adapters with tri-studs. A neoprene gasket placed under the clamp washer in the top signal section shall effectively seal the entrance adapter on the signal to make a waterproof connection and shall have a minimum thickness of 3/32 inch (2.5 mm).”

On page 798, **Replace** the seventh paragraph with the following;

The inside surface of the visors shall have a finish of flat black. All other exterior surfaces of the signal head and hardware (except cast aluminum cable entrance adapters) shall have a finish of Federal Yellow or Gloss Black to closely agree with Federal Standard 595, Color 13538 or Color 17038, as specified in the plans. The coating system used shall be durable, uniform, and weather resistant.

732.02

On page 798, **Delete** “incandescent lamp or, if specified, a” from the last sentence of the second paragraph.

732.03

On page 799, **Delete** “incandescent lamp or when specified, a” from the last sentence of the second paragraph.

On page 799, **Delete** the following from the second paragraph;
“incandescent lamp or when specified, a”

732.04

On pages 799, 800 and 801, **Delete** paragraphs A and B.

732.04.C.2.a

On page 803, **Replace** the entire subsection with the following:

The red and orange lamps shall be manufactured using AlInGaP (Aluminum-Indium-Gallium-Phosphide) technology or other LEDs with lower susceptibility to temperature degradation than AlGaAs (Aluminum-Gallium-Arsenic). AlGaAs LEDs will not be permitted. Green and yellow lamps shall be manufactured using Indium Gallium Nitride.

732.05

On page 807, **Delete** the following from the fourth paragraph;
“to ensure rated lamp life.”

On page 807, **Delete** the fifth paragraph.

On page 808, **Delete** “Clear lamp incandescent” from Table 732.05-1.

On page 808, **Replace** the tenth paragraph with the following: Finish signal exterior surfaces black with enamel coating. Finish interior surfaces of visors flat black.

732.05A

On page 808, **Delete** the following from the first paragraph;
“Install a lamp in each section.”

732.05B

On page 808, **Delete** the following from the first paragraph;
“Install a lamp in each section.”

732.05.C

On page 809, **Replace** the section with the following:

Furnish a single housing signal head with a lens in one piece or in two sections, one for each message. Color and mask the lens to display in portland orange the symbol of an upraised hand from the left compartment and the symbol of a walking person in white from the right compartment. Install a lamp in each compartment. The upraised hand and the walking person symbols may be integral in the same compartment.

732.05.D.2

On page 809, **Delete** the last sentence. “The display numeral segments shall be comprised of two rows of discrete segments.”

732.05.D.3

On page 809, **Delete** the last sentence. "The display numeral segments shall be comprised of two rows of discrete segments."

732.06

On page 810, in the first sentence of the third paragraph, **Delete** the words "per foot".

732.11

On page 811, **add** the following sentences at the end of the first paragraph:

A rectangular, rounded-corner aluminum Pole Identification Tag with minimum dimensions of 1 x 3 x 0.040 inches shall be attached to the pole at a height of 6 inches above the base plate. The Pole Identification Tag shall be clearly and deeply stamped with the ODOT Standard Construction Drawing Number, Design Number, and the fabrication date of the pole (e.g., TC-81.21, DES. 12, 05-12) in characters with a minimum height of 3/8 in. Attach to the pole with four stainless steel 3/16 inch rivets.

732.12

On page 812, **add** the following sentences at the end of the first paragraph:

A rectangular, rounded-corner aluminum Pole Identification Tag with minimum dimensions of 1 x 3 x 0.040 inches shall be attached to the pole at a height of 6 inches above the base plate. The Pole Identification Tag shall be clearly and deeply stamped with the ODOT Standard Construction Drawing Number, Design Number, and the fabrication date of the pole (e.g., TC-81.21, DES. 12, 05-12) in characters with a minimum height of 3/8 in. Attach to the pole with four stainless steel 3/16 inch rivets.

732.14

On page 812, **Replace** the entire section with the following:

732.14 Down Guy Assemblies. Furnish expanding or screw type anchors capable of withstanding a guy tension of 8000 pounds (35 kN) when installed in firm moist soil. Ensure that each anchor rod is 5/8 inch (16 mm) minimum diameter, 8 feet (2.4 m) minimum length galvanized steel with thimble eye.

Ensure that all pole and attachment hardware is hot dip galvanized in accordance with 711.02.

Furnish 3/8 inch (10 mm) minimum diameter guy wire that conforms to 732.18 and ensure that all accessories have a rated loading strength equal to or greater than the messenger wire minimum breaking strength.

Furnish porcelain strain insulators of the wet process type.

Furnish an 8 feet (2.4 m) minimum length guy guard made of impact and ultraviolet light resistant yellow plastic that is fastened to the guy wire.

Furnish materials according to the Department's Qualified Products List (QPL).

732.18

On page 813, **Replace** the entire section with the following:

732.18 Messenger Wire and Tether Wire

a) Wire: Furnish seven strand ASTM A475 Class B Utilities Grade or stronger messenger wire except ¼ inch (6 mm) seven strand messenger wire must be High Strength Grade or stronger. Furnish ¼ inch (6 mm) seven strand ASTM A475 Class B High Strength Grade or stronger tether wire. Furnish all wire per ASTM A475 with the following modifications:

18.2 Tags are not required on lengths less than 1000 feet (300 m)

b) **Accessories:** For messenger wire ensure all accessories have a rated loading strength equal to or greater than 73 percent the messenger wire minimum breaking strength. For breakaway tether installations, accessories within the turnbuckle-tensioned portion of the tether span shall have strength equal to or greater than 73 percent of the breaking strength of ¼-inch 7-strand ASTM A 475 High Strength Grade Wire rope, or 3460 pounds (15.4 kN). Furnish galvanized steel helical lashing rods in 5-foot (1.5 m) lengths. For tether wire ensure all accessories except S-hooks have rated load strength equal to or greater than the tether wire minimum breaking strength. S-hooks shall be made of mild low-carbon galvanized steel and of the wire size indicated on the plans; larger wire sizes and higher-strength steel S-hooks shall not be substituted. Safety tie wire shall be 304 or 316 stainless steel, 1x19 stranded, 1/8-inch (3 mm) with stainless steel wire rope clips. Lead sheet to wrap tether wire in breakaway anchors shall be commercially pure lead of thickness 0.030 to 0.042 inches (0.75 to 1.0 mm).

Furnish materials according to the Department's Qualified Products List (QPL).

732.185

On page 813, **Delete** the entire section.

732.22

On page 814, **Replace** the seventh sentence of the section, to the following:

A 2-inch (50 mm) wide continuous outside border of fluorescent yellow reflective sheeting shall be applied to the front of the backplate.

733.02B

On page 818, **Add** the following to the list right before the last paragraph;

“(4) 2070-6A,B.”

On page 818, **Add** the following to the end of the last paragraph;

“and the vendor's name.”

733.03

On page 820, **Add** the following to the end of the last paragraph;

“The door handle shall swing out away from the door edge, not toward the center of the door.”

733.03.A.2.o

On page 826, **Add** the following to the end of the paragraph;

“Route all wiring terminated on printed circuit boards (as commonly done for BIU backpanel connectors) at right angles to the pin array; no wires shall pass over the connector pins.”

733.03.B.1.f

On page 827, **Add** the following to the end of the sentence;

"Furnish momentary pushbuttons on the cabinet door for detector actuation of detector channels 1-16 of BIU #9 and opto-isolated pedestrian detector inputs 1-4 on BIU #1. Permanently label these pushbuttons as "VEH DET 1" through "VEH DET 16" and "PED DET 1" through "PED DET 4"."

733.03.B.1.h

On page 827, **Replace** the entire section with the following;

"Section 7.3, unless otherwise specified in the plans, provide a Size 5 cabinet for four phase or less pole mounted cabinets, Size 5 for four phase or less ground mounted cabinets, and Size 6 for 5 phase or more ground mounted cabinets. Supply larger cabinets if required to house the equipment to meet the plan requirements; such as master controllers, preemption devices, 16 position backpanels or special detection units.

Furnish all wire passages through metal panels with edge protection polymer trim."

733.03.B.1.k

On page 827, **Add** the entire section with the following;

"The following overrides NEMA requirements for signal bus relays. A solid state relay shall be used for the signal bus relay. The signal bus relay shall maintain output equal or above the rating of the cabinet main overcurrent protection device over the NEMA TS-2 Environmental Operating Range of -50 to +185 degrees F (-45 to +85 degrees C)"

733.03.B.6

On page 828, **Add** the following after the last sentence;

"Cabinet power distribution shall conform to Figure 5-4, NEMA TS-2 2003 v02.06. In addition, locate a non-GFCI NEMA 5-15 utility outlet on the right side power panel. If the cabinet is equipped with a UPS, this outlet shall be powered independently of the UPS."

733.03.B.7

On page 828, **Add** the entire section;

"Furnish an 8-port SDLC expansion board on the left side of the cabinet. This board shall include in one of the slots an EDCO model SRS-BIU-15 surge suppressor or approved equal."

733.03.B.8

On page 828, **Add** the entire section;

"Furnish an aluminum shelf with integral storage compartment in the rack below the controller. Ensure that the storage compartment has telescoping drawer guides for full extension. Ensure that the compartment top has a non-slip plastic laminate attached."

733.03.C.1

On page 828, **Replace** the following

C. Type 332.

1. General. Furnish Model 332L cabinets that meet the specifications "Traffic Signal Control Equipment Specifications" and "Transportation Electrical Equipment Specifications", California Department of Transportation. Ensure that the manufacturer of the cabinets is listed on the ODOT or CalTrans QPL.

733.03.C.4.a

On page 829, **Add** the following paragraph between the first and second paragraph:

"In addition to the requirements of Caltrans TEES, furnish detector unit with an LED or LCD display indication of call strength ($\Delta L/L$ or equivalent). This display shall be a bar graph or numerical display with at least eight (8) discrete levels indicated."

733.03.C.6.a

On page 830, **Replace** "24" in the third paragraph the following;
"60"

733.03.E.1

On page 840, **Replace** the following

E. Type 336.

1. General. Furnish Model 336 cabinets that meet the basic cabinet specifications "Traffic Signal Control Equipment Specifications", California Department of Transportation, latest edition. Ensure that the manufacturer of these Model 336 cabinets is listed on the ODOT or CalTrans QPL for the Model 332 cabinets unless specified otherwise in the plans, a 336L cabinet shall be furnished.

733.09.A

On page 846, **Replace** the first paragraph with the following;

"Operation. In addition to the material requirements below, furnish a UPS system with a minimum two and one half (2.5) hours of full run-time operation for an "LED-only" intersection with 1000 watts of active output power."

On page 846, **Add** the following paragraphs at the end of this section:

Furnish a UPS with available buck/boost mode operation, over a minimum input voltage range of 85 - 150 vrms. The unit display shall indicate when buck/boost mode is engaged. Default buck/boost setpoints shall be 108 vrms and 132 vrms unless specified otherwise in the Plans.

Furnish a UPS with an Ethernet port for remote monitoring and control. Provide interface software unless the Ethernet port has a built-in web browser compatibility.

Ensure the UPS cabinet has a mastic tape seal between the cabinet bottom flange and the concrete foundation. Minimum tape thickness shall be 1/8-inch (3 mm) and the tape shall be continuous with no gaps between tape pieces or between cabinet and foundation.

740.02

On page 848, **Delete** the following from the first paragraph;

"Prequalify materials according to Supplement 1047. Use materials certified according to Supplement 1089."

On page 848, **Add** the following to the end of the section:

"Furnish materials according to the Department's Approved List."

740.03

On page 850, Add the following to the end of the section:
“Furnish materials according to the Department’s Approved List.”

740.04

On page 850, **Replace** the first paragraph with the following:
Furnish thermoplastic pavement marking material formulated expressly for use as retroreflective pavement markings on asphalt concrete or Portland cement concrete pavement. Furnish material that includes a mixture of Alkyd resins-19% minimum by weight at least one of which is solid at room temperature, and contains premixed glass beads 740.09 Type C, 30% minimum by weight, with a 1.50 minimum index of refraction. Ensure that the ingredients are well mixed so that all parts are evenly dispersed throughout. Ensure that there are no foreign objects, skins, dirt, or such ingredients that would cause staining, discoloration, or bleeding. Furnish suitable materials for application in molten form by extrusion method. Ensure that the material is capable of retaining reflective glass beads, 740.09 Type C, after application.

740.04 G

On page 850, **Replace** the section with the following:
G. Pigment Content. Furnish yellow material containing a minimum of 5 percent by weight of primary yellow (lead chromate) pigment (or a lead free pigment) (measured as per ASTM D 126 or Department approved lab method). Furnish white material containing a minimum of 10 percent Titanium Dioxide-Rutile Type -2 by weight of white pigment..

740.09

On page 853 **Replace** the entire section in its entirety with the following:
740.09 Glass Beads.

Furnish certified test data for the arsenic and lead content of all glass bead samples sent to the Department for testing to ensure that all glass beads furnished to the Department contain no more than 200 parts per million of arsenic or lead as determined in accordance with Environmental Protection Agency testing methods 3052, 6010B, or 6010C, according to SEC 1504 STANDARDS. Section 109 of title 23, United States Code, (r) Pavement Markings.

A. Type A. Furnish Type A glass beads for traffic paint conforming to Supplement 1008 and to AASHTO M 247, Type 1 without flotation properties but dual coated (for moisture resistance and adhesion), with the following exception: 4.6 Flotation Test.

Ensure that the glass beads for traffic paint are packaged in bags designated “740.02”. Use materials certified according to Supplement 1089.

B. Type B. Furnish Type B glass beads for polyester marking material conforming to Supplement 1008 and AASHTO M 247, Type 1 with 50 ± 5 percent flotation coating and ensure that a 50 ± 5 percent moisture resistant coating is retained on each sieve, with the following exception: 4.6 Flotation Test. Ensure that the minimum percent floating equals 90 of flotation coated beads or 40.5 percent of total mixture.

Ensure that the glass beads for polyester marking material are packaged in bags designated “POLY”.

Use materials certified according to Supplement 1089.

C. Type C. Furnish Type C glass beads for thermoplastic material conforming to Supplement 1008 and meeting the following specification.

Sieve Size	Percent Retained		
No. 16 (1.18 mm)	3 maximum	Refractive Index	1.50 to 1.60
No. 20 (850 μm)	5 to 20	Roundness	80 minimum
No. 40 (425 μm)	65 to 95	Coating	Moisture resistant
No. 50 (300 μm)	0 to 5		(for drop-on beads only)

Ensure the glass bead packaging is clearly marked "THERMO"

Use materials certified according to Supplement 1089.

D. Type D. Furnish Type D glass beads for Epoxy Pavement Marking conforming to Supplement 1008.

Ensure that the glass bead packaging clearly indicates EPOXY - SIZE I or EPOXY SIZE II.

Ensure that the glass beads have the following gradation when tested according to Supplement 1089.

SIZE I		SIZE II	
Sieve Size	Percent Retained	Sieve Size	Percent Retained
No. 10 (2.00 mm)	0	No. 20 (850 μm)	0 to 5
No. 12 (1.70 mm)	0 to 5	No. 30 (600 μm)	5 to 20
No. 14 (1.40 mm)	5 to 20	No. 50 (300 μm)	30 to 75
No. 16 (1.18 mm)	40 to 80	No. 80 (180 μm)	9 to 32
No. 18 (1.00 mm)	10 to 40	No. 100 (150 μm)	0 to 5
No. 20 (850 μm)	0 to 5	Pan	0 to 2
Pan	0 to 2		

Reflective Media: Ensure that the glass beads are smooth, clear, free from any air inclusions, and scratches that might affect their functions as a retro-reflective media, and that have the characteristics listed below.

Roundness (Percent by Weight): Ensure that not more than 20 percent of the glass beads are irregular or fused spheroids and that at least 80 percent of the beads are true beads.

Index of Refraction: Ensure that the refractive index of the beads is a minimum of 1.50 as determined by the liquid immersion method at 77 °F (25 °C). Ensure that the silica content of glass beads is not less than 60 percent.

Coating: Furnish Size I glass beads that are coated with a silane-type adherence coating to enhance its embedment in, and adherence to the applied binder film. Ensure that the coated beads emit a yellow-green fluorescence when tested by the Dansyl Chloride test procedure. Furnish Size II glass beads that are treated with a moisture-proof coating. Ensure that both types of glass beads show no tendency to absorb moisture in storage and remain free of clusters and lumps. Ensure that

they flow freely from the dispensing equipment at any time when surface and atmosphere conditions are satisfactory for marking operations.

Determine the moisture-resistance of the glass beads on the basis of the following test:

Place 2.2 pounds (1 kg) of beads in a washed cotton bag, having a thread count of 50 per square inch (8/cm²) (warp and woof) and immerse the bag in a container of water for 30 seconds. Remove the bag and force the excess water from the sample by squeezing the bag. Suspend and allow them to drain for two hours at room temperature 70 to 72 °F (21 to 22 °C). After draining, mix the sample in the bag by shaking thoroughly. Transfer a sample slowly to a clean, dry glass funnel having a stem 4 inches (100 mm) in length, with a 3/8-inch (10 mm) inside diameter stem entrance opening, and a minimum exit opening of 1/4 inches (6 mm). Ensure that the entire sample flows freely through the funnel without stoppage. When first introduced to the funnel, if the beads clog, it is permissible to tap the funnel to initiate flow.

Use materials certified according to Supplement 1089.

748.01

On page 855, **Replace** the second paragraph of 748.01 with the following:

Furnish push-on joints, mechanical joints, and boltless restrained joints conforming to ANSI/AWWA C111/A21.11. For restrained joints, ensure that the restraint is a design approved by the owner of the utility and provides a positive lock designed to prevent joint separation. Steel locking segments molded into a gasket to grip the pipe do not meet the requirements for this joint.

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION 821
ARROW BOARD**

April 20, 2012

- 821.01 Description**
- 821.02 Materials**
- 821.03 Use and Operation**
- 821.04 Basis of Payment**

821.01 Description. This work consists of furnishing, installing, maintaining and removing arrow boards.

821.02 Materials. Furnish materials conforming to:

Arrow Board.....921.02

821.03 Use and Operation. Locate arrow boards as shown in the plans or as directed by the Engineer. Supply all lubricants and parts necessary to obtain continuous operation and provide all service. Inspect the operation of the unit daily including weekends and holidays. Arrange with the Engineer an acceptable method of obtaining service for a malfunctioning panel within 2 hours of a reported malfunction.

Limit use of Type A arrow boards to low-speed 20 - 35 mph urban streets. Use of Type B arrow boards is appropriate for intermediate-speed 40 - 50 mph facilities and for maintenance or mobile operation on high-speed roadways. All arrow boards used in stationary traffic control operation on high-speed 55 mph or greater, high-volume roadways shall be Type C.

Fully charge battery and solar/battery units when first set up. Verify daily that the unit is operating satisfactorily and the remaining battery charge is sufficient for at least 2 more days.

An arrow board in the arrow mode shall be used only for stationary or moving lane closures on multi-lane roadways. For shoulder work, blocking the shoulder, for roadside work near the shoulder, or for temporarily closing one lane on a two-lane, two-way roadway, an arrow board shall be used only in the caution mode. Arrow boards shall not be used to laterally shift traffic.

Lock the control cabinet when left unattended.

Type A and B arrow boards used in mobile operations may be powered by the vehicle's electrical system, but shall not be left unattended when so powered. Caution is advised to prevent the vehicle's electrical system from running down while the arrow board is

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENTAL SPECIFICATION 921
ARROW BOARD**

April 20, 2012

921.01 Description. This Supplemental Specification sets forth the requirements for Arrow Boards.

921.02 Materials. The Arrow Board shall consist of the following components: flasher panel, lamps, controls, power supply and mounting.

Furnish materials according to the Department's Approved List.

A. Flasher Panel. The flasher panel shall be of corrosion resistant metal construction of adequate design and strength. The panel shall be finished flat black. The panel type shall be one of the three below.

Panel Type	Minimum Size	Minimum Number of Elements
A	48 x 24 in (1200 x 600 mm)	12
B	60 x 30 in (1500 x 750 mm)	13
C	96 x 48 in (2400 x 1200 mm)	15

The Arrow Board shall be designed for operation in 100% humidity and temperatures from -20°F to +130°F (-29°C to +54°C).

B. Lamps. The lamps shall be LED. The lamp shall be fitted with a 360° hood at least 5" (125 mm) long.

Color output of light shall be amber.

The lamps shall be securely mounted and positioned in the panel perpendicular to the panel face and oriented so that the lamp location lug (on the back of the lamp) is on the horizontal center line through the lens.

The lamps shall be wired in circuits that can be switched to display any one of the following messages: left arrow, right arrow, left and right, caution bar, and corner caution.

C. Controls. Each Arrow Board shall contain a flasher control and a dimmer control unit housed in a cabinet which can be locked.

- 1. Flasher Control.** The flash rate for the sign panel shall be 25 to 40 flashes per minute. The flasher shall not cause electromagnetic interference. The lamps shall have a minimum "on time" of 50% and a maximum of 66%.

2. **Dimmer Control.** Lamp intensity shall be variable by means of a photoelectrically controlled circuit which shall reduce lamp output during low ambient light conditions. Lamp intensity shall be at the nighttime level whenever the ambient illumination is in or below the range of 2 foot-candle (21 lux) to 5 foot-candle (54 lux) and shall be at daytime level when ambient illumination is in or above the range of 5 foot-candle (54 lux) to 10 foot-candle (108 lux). If controls provide for continuous adjustment of lamp intensity with respect to ambient illumination, then lamp intensity shall increase linearly from nighttime intensity at 5 foot-candle (54 lux) to daytime intensity at 3250 foot-candle (35,000 lux). A time delay shall be built into the control to prevent false operation due to light flashes. The photoelectric control shall contain a switch which shall override the photoelectric control.

D. Power Supply. Battery and solar/battery units shall have a no-charge-life of not less than 15 days. No-charge-life is the number of consecutive days that the system can continue to function (double arrow mode, normal dimming during 12 hour night, full output during 12 hour day) starting with a full battery charge and with no additional charge provided by the solar cells.

E. Mounting. The Arrow Board may be trailer or vehicle mounted or mounted on a rigid supporting device, behind barrier wall, suitable for maintaining it in the designated position. Each of the mounting methods shall be suitably stable such as to prevent movement due to high winds or passage of large vehicles.

When a trailer is used, construction shall be such as to transport the Arrow Board and appurtenances adequately and legally as well as support them properly during operation. The trailer shall be equipped with devices which shall provide leveling and stability during operation.

Minimum Arrow Board mounting height shall be 7 feet (2.1 m) above the pavement surface (measured to the bottom of the panel), except on vehicle-mounted panels, which should be as high as practical.

SECTION 400
PROPOSAL NOTES

**CUYAHOGA COUNTY ENGINEER
HIGHWAY DESIGN
PROPOSAL NOTES**

**FOR 2010 ODOT
CONSTRUCTION MATERIAL
SPECIFICATIONS
(NON-LPA PROJECTS)**

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DRUG-FREE SAFETY PROGRAM

The prime contractor agrees to comply with all applicable state and federal laws regarding drug-free safety program (DFSP). The prime contractor shall make a good faith effort to ensure that all its employees, while working on this project, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.

The prime contractor shall also require that this contractual obligation be placed in all subcontractor and materialman contracts that it enters into and further require that all subcontractors and materialmen place the same contractual obligations in each of their lower tier contracts.

Drug Free Safety Program Participation

During the life of this project, the Contractor and all its Subcontractors, that provide labor on the Project site, must be enrolled in and remain in good standing in the Ohio Bureau of Worker's Compensation ("OBWC") Drug-Free Safety Program ("DFSP") or a comparable program approved by the OBWC.

In addition to being enrolled in and in good standing in an OBWC-approved DFSP or a comparable Drug Free Workplace Program ("DFWP") approved by the OBWC, the County requires each Contractor and Subcontractor that provides labor, to subject its employees who perform labor on the project site to random drug testing of 5 percent of its employees. The random drug testing percentage must also include the on-site supervisors of the Contractors and Subcontractors. Upon request, the Contractor and Subcontractor shall provide evidence of required testing to the County.

Each Subcontractor shall require all lower-tier Subcontractors that provides labor on the project site with whom the Subcontractor is in contract for the Work to be enrolled in and be in good standing in the OBWC DFSP or an OBWC-approved DFWP prior to a lower-tier Subcontractor providing labor at the Site.

The County will declare a bid non-responsive and ineligible for award if the Contractor is not enrolled and in good standing in the Ohio Bureau of Workers' Compensation's DFSP Discount Program or a similar program approved by the Bureau of Workers' Compensation within 8 days of the bid opening. Furthermore, the County will deny all requests to sublet when the subcontractor does not comply with the provisions of this proposal note.

Failure of the Contractor to require a Subcontractor to be enrolled in and be in good standing in the OBWC DFSP or an OBWC-approved DFWP prior to the time that the Subcontractor provides labor at the Site, shall result in the Contractor being found in breach of the Contract and subject to all legal consequences that such a finding entails.

FUEL PRICE ADJUSTMENT

General: This Fuel Price Adjustment (Fpa) provision is intended to minimize risk to the Contractor or Design Build Team, (DBT) due to fuel price fluctuations that may occur during the Contract. This provision is not designed to estimate actual quantities of fuel used in construction operations, but to provide a reasonable basis for calculating a fuel price adjustment based on average conditions.

The County determines adjustments under the provisions of this Proposal Note, and presumes that the Contractor/(DBT) has relied on these provisions when determining unit bid prices. The monthly application range for percent change (Mbp/Cbp) will not exceed 50% for a Fuel Price Adjustment increase or decrease as outlined in Section B, Calculation of Fuel Price Adjustment.

A. Price Adjustment Criteria: These requirements provide for a price adjustment, positive or negative, to payments due the Contractor/(DBT) for fluctuations in the cost of fuel consumed in the performance of certain items of work. These price adjustment provisions apply only to those items in the contract as grouped by category and identified in Table A-1. All adjustments will be made based on fuel consumption indicated by Table A-1, and no changes will be made for actual consumption rates.

Category descriptions and the fuel usage factors which are applicable to each are as follows:

Fuel Adjustment Categories, Table A-1				
Category	Basis of Calculation and Threshold Quantity	Eligible Items	Units	Fuel Usage Factor
Earthwork	Apply only to the greater of the sum of all Excavation quantities or the sum of all Borrow and Embankment quantities. Threshold Quantity* = 30,000 c.y. (22,936 c.m.)	203, 204	Gallons per cubic yard (Gallons per cubic meter)	0.50 (0.65)
Aggregate Bases	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 2,500 c.y. (1,912 c.m.)	304, 307	Gallons per cubic yard (Gallons per cubic meter)	0.75 (0.98)
Select Granular Backfill	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 2,000 c.y. (1,529 c.m.)	840	Gallons per cubic yard (Gallons per cubic meter)	0.75 (0.98)
Flexible	Apply to quantity calculated based on the	301, 302, 308,	Gallons per	4.50

Bases and Pavements	Method of Measurement and Basis of Payment. Threshold Quantity* = 1,200 c.y. (917 c.m.)	424, 442, 443, 446, 448, 803, 826, 857, 880	cubic yard (Gallons per cubic meter)	(5.88)
Rigid Bases and Pavements	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 1,200 c.y. (917 c.m.)	305, 306, 451, 452, 526, 884, 888, 896	Gallons per cubic yard (Gallons per cubic meter)	1.00 (1.31)
Structural Concrete	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 350 c.y. (268 c.m.)	511, 524, 842, 892, 893, 894, 898	Gallons per cubic yard (Gallons per cubic meter)	4.00 (5.23)

* A Fuel Price Adjustment will only apply when the sum of all **original** contract quantities or for Design Build Projects all completed in-place accepted final quantities for the category meet or exceed the specified Threshold Quantity. When a Fuel Price Adjustment applies, calculate the Fuel Price Adjustment for the sum of all quantities for the category per this proposal note.

B. Calculation of Fuel Price Adjustment: Fuel Price Adjustments may be either positive or negative. A positive Fuel Price Adjustment will result in a payment to the Contractor/(DBT) while a negative Fuel Price Adjustment will result in a deduction.

The County will calculate a Monthly Base Price (Mbp) for fuel for each month of each calendar year beginning with January 2001. The method for calculating the Monthly Base Price (Mbp) will be on file in the Ohio Department of Transportation (ODOT) Division of Construction Management. The Monthly Base Price (Mbp) will be used to calculate all Fuel Price Adjustments. The Contract Base Price (Cbp) will be the Monthly Base Price (Mbp) for the month the contract was bid. All Monthly Base Price (Mbp) values will be posted on the ODOT Division of Construction Management, Office of Construction Administration website at:

<http://www.dot.state.oh.us/Divisions/ConstructionMgt/Admin/Pages/PriceIndexes.aspx>

During each month of the contract the Engineer will select the applicable Monthly Base Price (Mbp) and calculate the ratio of the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp). The formulas below allow for a variation in fuel prices without recognizing cost increases/ decreases within the range of 90% to 110% of the Contract Base Price (Cbp).

When, and only when, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is less than 0.90 or greater than 1.10 will the Engineer calculate a Fuel Price Adjustment (Fpa).

Cost increases in excess of 150% of the Contract Base Price (Cbp) will not be recognized. When, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is greater than 1.50, the Fpa shall be calculated using a Cbp/Mbp ratio of 1.50.

Cost decreases in excess of 50% of the Contract Base Price (CBP) will not be recognized. When, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is less than 0.50, the Fpa shall be calculated using a Cbp/Mbp ratio of 0.50.

For a Price Increase:

$$Fpa = [(Mbp/Cbp) - 1.10] \times Cbp \times Q$$

For a Price Decrease:

$$Fpa = [(Mbp/Cbp) - 0.90] \times Cbp \times Q$$

Where:

Fpa = Fuel Price Adjustment

Mbp = Monthly Base Price

Cbp = Contract Base Price

Q = The number of gallons of fuel used in the placement of items identified in Table A-1 during that month at the specified Fuel Usage Factor. Q will be determined by the Engineer for each category by multiplying the applicable Fuel Usage Factor by the sum of quantities of completed and accepted work for the specified items.

The total Monthly Fuel Price Adjustment will be the algebraic sum of the Fuel Price Adjustments for materials placed during the month for each applicable category identified in Table A-1. The Total Fuel Price Adjustment for the project will be the algebraic sum of all Monthly Fuel Price Adjustments. The County will calculate the Monthly and Total Fuel Price Adjustment on a monthly basis and make contract modifications as provided in Section C, Payment/Deduction.

C. Payment/Deduction: The Fuel Price Adjustment will be paid, or deducted, upon approval of a change order prepared after completion of all work. Contractor/(DBT) markups are not permitted. Partial payments or deductions will be processed prior to total completion when the unpaid accrued Total Fuel Price Adjustment exceeds \$10,000 or once every 12 months.

D. Expiration of Contract Time: When eligible items of work grouped by category and identified in Table A-1 are performed after expiration of contract time and liquidated damages are chargeable, the value of Monthly Base Price (Mbp) used to compute the price adjustment will be either the Monthly Base Price (Mbp) at the time of actual performance or the Monthly Base Price (Mbp) at the time contract time expired, whichever is less.

E. Extra Work: When eligible items of work grouped by category and identified in Table A-1 are added to the contract as Extra Work and for which a unit price is negotiated the Contractor/(DBT) must use the appropriate price for fuel when preparing required backup

data for the negotiated price. No Fuel Price Adjustment will be made for fuel consumed in the performance of eligible work added to the contract as Extra Work at a negotiated price when the work commences within 90 days of the approval of the change order authorizing said extra work. If the eligible work at a negotiated price commences more than 90 days after the approval of the change order authorizing said extra work a Fuel Price Adjustment will be made if said extra work quantities exceed the applicable threshold quantity in Table A-1. The Fuel Price Adjustment will be calculated using the Monthly Base Price (Mbp) value for the month the change order authorizing said extra work was approved as the value for its Contract Base Price (Cbp).

When Extra Work is added to the contract as a Force Account operating costs for equipment used in the performance of this work will be paid in accordance with 109.05.C.4 of the Cuyahoga County Engineer's General Provisions with no further adjustment.

F. Final Quantities: Upon completion of the work and determination of final pay quantities a change order will be prepared to reconcile any difference between estimated quantities previously paid and the final quantities. In this situation, the value for the Monthly Base Price (Mbp) used in the price adjustment formula will be the average of all Monthly Base Price (Mbp) values previously used for computing price adjustments.

SEALING CONTACT SURFACES (401.14) AND SURFACE COURSE JOINTS (401.15 AND 401.17)

Per the requirements of 401.14, paint all contact surfaces, including vertical faces of curbing, gutters, manholes, catch basins, monuments, water valves and other castings with a thin, uniform coating of a certified PG 64-22 or PG 64-28 asphalt binder (702.01) before placing the asphalt concrete against them. After completion of the surface course, seal gutters, edges along the above mentioned castings, butt joints, feather joints (all prior to the placement of pavement markings), asphalt driveway joints, etc. with a certified PG 64-22 or PG 64-28 asphalt binder (702.01) as directed by the Engineer. The material shall be applied at a uniform width of two (2) inches and at a rate just sufficient to fill surface voids per 401.15. Unless otherwise directed/approved by the Engineer, seal all longitudinal and transverse construction joints per 401.17 prior to the placement of pavement markings. Any additional costs associated with the above requirements shall be included in the appropriate asphalt concrete course item of work.

ODOT QUALIFIED PRODUCTS LIST AND ACCEPTANCE

The Ohio Department of Transportation has developed a Qualified Products List (QPL) for acceptance of various materials. This list is accessible through the Office of Materials Management's website at:

<http://www.dot.state.oh.us/Divisions/ConstructionMgt/Materials/Pages/QPL.aspx>

For the Construction and Materials Specification Items listed on the QPL, only materials produced by those QPL listed sources will be acceptable. Only provide materials for project use from the companies and the brand names listed on the QPL. Assure those materials can be identified by company and brand name. No plant

sampling and testing is required. No TE-24 shipping document is required. No other documentation is required.

The County will not accept materials from Producers not listed on the website. Producers of materials listed on the QPL can access submittal and acceptance requirements on the QPL website under Material Description.

AS PER PLAN DESIGNATION – PROPOSAL NOTE

For the last several years the “As Per Plan” designation has been added to some item descriptions in the proposal to assist the Contractors to easily identify standard items that have been altered by plan notes.

The “As Per Plan” designation has proven to be a very useful tool for the Contractors. However, its use was never intended to relieve the Contractors of their responsibility to read, bid and construct all items in accordance with all governing plan notes. Therefore, the absence of an “As Per Plan” designation on some item descriptions in the proposal for which there are clear and controlling plan notes does not relieve the Contractors of the responsibility to read, bid and construct those particular items in accordance with the governing plan notes.

Be advised that the item descriptions in the bidding proposal must be read or interpreted with the governing plan notes and the Ohio Department of Transportation Construction and Material Specification Manual. A claim based upon an “order of precedence” basis will be denied. In the event that a conflict, either real or perceived, exists between the item description and the governing plan note, the Contractors are to request clarification through the pre-bid process.

COMPUTERIZED BID SHEET

The Cuyahoga County Department of Public Works has provided an Excel spreadsheet of the itemized unit price bid sheets on its Internet web site (<http://www.cuyctyengineers.org>), which may be downloaded from that location for use by the bidder. The spreadsheet contains formulas for the extensions, subtotals, and totals which have been tested with sample data for accuracy. However, be advised that the bidder is solely responsible for preparing his bid sheets and verifying the correctness of the calculations. The accuracy of any formulas included in a spreadsheet provided by the Cuyahoga County Department of Public Works is not guaranteed.

If used by the bidder, this spreadsheet must be printed on 8½" by 11" paper and be submitted with the proposal. Submission of the unit price bid sheets in electronic form will not be permitted.

UTILITY NOTE

This work is not expected to impact any utilities.

The Contractor must exercise caution when working in proximity to the existing and/or relocated utility facilities.

Sections 105.07 and 107.16 of the Cuyahoga County Engineer's General Provisions require that the contractor cooperate with all utilities located within the limits of this construction project and take responsibility for the protection of the utility property and services.

If the Contractor is directed by a utility company to perform any work not specifically contained in the plans or proposal, the County will not compensate the Contractor for this work unless the County approves the request in writing before the work begins. If the work is not pre-approved by the County, the Contractor will be responsible for obtaining reimbursement for its work from the utility company, which directed the contractor to perform the work.

In the event that the Contractor requests that additional work, not specifically contained in the plans or proposal, be performed by a utility company, the Contractor will be responsible for reimbursing the utility company for the additional work unless the County has agreed in writing to pay for the additional work before the work begins.