

NAME OF CONTRACTOR \_\_\_\_\_

PROPOSAL AND SPECIFICATIONS  
FOR  
HIGHWAY CONSTRUCTION

COUNTY LOCAL ROAD SYSTEM

PROJECT NO. 4771 – 0.34 miles of roadway reconstruction including grade establishment, sand subbase, aggregate base, storm sewer, HMA paving and restoration on Lakeview Avenue from Lakeshore Drive to Blue Star Highway, Casco Township, Allegan County.

CASCO TOWNSHIP

March 23, 2016

BOARD OF COUNTY ROAD COMMISSIONERS  
OF ALLEGAN COUNTY, MICHIGAN

1308 Lincoln Road, Allegan, MI 49010

ALLEGAN COUNTY ROAD COMMISSION  
ADVERTISEMENT FOR BIDS  
COUNTY LOCAL ROAD CONSTRUCTION

Sealed bids will be received by the Allegan County Road Commission at their office at 1308 Lincoln Road (M-89), Allegan, Michigan until 11:00 A.M., Local Time, March 23, 2016, and, at such time, be publicly opened and read aloud for the following:

PROJECT NO. 4771 – 0.34 miles of roadway reconstruction including grade establishment, sand subbase, aggregate base, storm sewer, HMA paving and restoration on Lakeview Avenue from Lakeshore Drive to Blue Star Highway, Casco Township, Allegan County.

Complete specifications and bid forms are available at the Road Commission office and the Road Commission website [www.alleganroads.org](http://www.alleganroads.org) under the Projects link. Project plans will only be available at the Road Commission office.

All bids must be submitted on forms furnished by the Road Commission and sealed in envelopes with the name and address of the bidder, and the item bid upon clearly marked thereon.

A bid deposit of at least 5% of the bid amount will be required for this item. The bid deposit may be in the form of certified check, cashier's check or bid bond.

The Commission reserves the right to reject any or all bids, to waive minor technicalities, and to accept the bid that is deemed to be in the best interest of the County of Allegan.

BOARD OF COUNTY ROAD COMMISSIONERS  
OF ALLEGAN COUNTY, MICHIGAN

Bruce D. Culver, Chairman  
Robert Kaarlie, Vice-Chairman  
John Kleinheksel, Member

PROJECT NO. 4771 – 0.34 miles of roadway reconstruction including grade establishment, sand subbase, aggregate base, storm sewer, HMA paving and restoration on Lakeview Avenue from Lakeshore Drive to Blue Star Highway, Casco Township, Allegan County.

BID and AWARD

Date \_\_\_\_\_

Board of County Road Commissioners  
Of Allegan County  
1308 Lincoln Road  
Allegan, MI 49010

Gentlemen:

The undersigned has examined the plans, specifications, and location of the work described herein and is fully informed as to the nature of the work and the conditions relating to its performance and understands that the quantities shown in the estimate are approximate only and are subject to either increase or decrease; and hereby proposed to furnish all necessary machinery, tools, apparatus and other means of doing the work, do all the work, furnish all the materials except as otherwise specified herein, and, for the unit prices named in the accompanying unit price schedule, to complete work in strict accordance with the plans and specifications therefore.

The undersigned further proposes to such extra work as may be ordered by you, prices for that are not included in the itemized bid, compensation therefore to be made on the basis agreed upon before such extra work is begun.

The undersigned agrees to complete all items of work on or before July 29, 2016. The contractor will have 45 working days (as defined in the 2012 MDOT Standard Specifications for Construction) to complete the project. The schedule for liquidated damages is located in the general specifications.

The contractor shall submit a progress schedule subject to approval of the Engineer prior to the award of the contract.

The undersigned encloses a certified check, cashier's check, or Bid Bond, representing 5% of the bid, in the amount of \$\_\_\_\_\_, payable to the Allegan County Road Commission as a guarantee of good faith. If the contract is awarded to the undersigned, and the undersigned fails to furnish satisfactory bonds to the Road Commission within fifteen (15) days after being given notice of award said check will be forfeited to the Allegan County Road Commission as liquidated damage.

THE CONTRACT

The Contract Documents consist of the bid documents, this Agreement, Conditions of the Contract (General Supplementary, Special and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiation, representations or agreements, either written or oral. If anything in the other Contract Documents is inconsistent with this Agreement, this Agreement will govern.

PROJECT NO. 4771 – 0.34 miles of roadway reconstruction including grade establishment, sand subbase, aggregate base, storm sewer, HMA paving and restoration on Lakeview Avenue from Lakeshore Drive to Blue Star Highway, Casco Township, Allegan County.

ALLEGAN COUNTY ROAD COMMISSION  
ALLEGAN, MICHIGAN  
ITEMIZED UNIT PRICE BID SCHEDULE

ITEM OF WORK	QUANTITY	UNIT PRICE	TOTAL
Station Grading	1 LS		
Subbase, CIP	2,200 Cyd		
Topsoil Surface, LM	425 Cyd		
Subgrade Undercutting, Type II	800 Cyd		
Underdrain, Subgrade, 6 inch	1,500 Ft		
Geotextile, Stabilization	5,000 Syd		
Aggregate, 6A	10 Ton		
Dr Structure, 24 inch dia	4 Ea		
Dr Structure, 48 inch dia	8 Ea		
Dr Structure, 60 inch dia	2 Ea		
Sewer, Perf, 12 inch	1,160 Ft		
Sewer, CI E, 12 inch	120 Ft		
Sewer, CI E, 18 inch	216 Ft		
Culv End Sect, Conc, 18 inch	2 Ea		
Dr Structure Cover	14 Ea		
Dr Structure Cover, Adj, Case 1	6 Ea		
Dr Structure, Tap, 6 inch	4 Ea		
Aggregate Base, 6 inch	4,900 Syd		
Approach, CI II	160 Ton		
Approach, 21AA	30 Ton		
HMA, 13A	1,050 Ton		
Restoration	1 LS		
Extended Restoration	1 LS		

Seeding, Mixture CR	60 Lb		
Sign, Type B, Temp, Modified	168 Sft		
Plastic Drum, High Intensity, Lighted, Modified	10 Ea		
Barricade Type III, High Intensity, Dbl Sided, Ltd, Modified	2 Ea		
Riprap, Plain	20 Syd		
Mulch Blanket, High Velocity	500 Syd		
Erosion Control, Silt Fence	400 Ft		
Project Cleanup	1 LS		

TOTAL \$ \_\_\_\_\_

The undersigned bidder agrees that the following is a complete and accurate list of all sub-contractors to be utilized is awarded this contract and any change from this list will be permitted only with the consent of the Board of County Road Commissioners of Allegan County. **LIST NAME OF EACH SUB-CONTRACTOR AND BRIEF DESCRIPTION OF WORK TO BE DONE.**

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I hereby state that all of the information I have provided is true, accurate and complete. I hereby state that I have the authority to submit this bid, which will become a binding contract if accepted by the Board of County Road Commissioners of Allegan County. I hereby state that I have not communicated with nor otherwise colluded with any other bidder, nor have I made any agreement with nor offered or accepted anything of value from an official or employee of the Board of County Road Commissioners of Allegan County that would tend to destroy or hinder free competition.

In case the bidder is a co-partnership, each member must sign this proposal.

In case the bidder is a Corporation, this proposal must be executed by its duly authorized officials in accordance with its articles of incorporation and a certified copy of such articles must be attached hereto.

I hereby state that I have read, understand and agree to be bound by all the terms of this bid document.

SIGNATURE: \_\_\_\_\_ NAME: \_\_\_\_\_  
(Type or Print)

TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

FIRM NAME: \_\_\_\_\_ PHONE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
(Street Address) (City) (State) (Zip)

**FOR COUNTY USE ONLY – DO NOT WRITE BELOW**

ACCEPTED BY: BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF ALLEGAN, MICHIGAN

\_\_\_\_\_  
Chairman

\_\_\_\_\_  
Vice-Chairman

\_\_\_\_\_  
Member

\_\_\_\_\_  
Date

## STANDARD SPECIFICATIONS

The Standard Specifications for Construction of the Michigan Department of Transportation, 2012 Edition shall apply. Nothing herein will be construed to create any obligation or duty on the part of the Board of County Road Commissioners of Allegan County, including obligations or duties which may be expressed or implied in the Standard Specifications for Construction of the Michigan Department of Transportation, unless specifically set forth in the contract documents.

The quantity for all pay items will not exceed more than 5% of the plan quantity unless the contractor has received a written work order from the Allegan County Road Commission. Amounts in excess of the plan quantity will not be considered for payment unless the increase was directed by the Engineer or an error in calculations is proven.

STATION GRADING: The item of "Station Grading" will include all culvert removal, fence removal, fence relocation regardless of fence type, guardrail removal, obliterating roadway, rock excavation, concrete removal, HMA removal, earth excavation, embankment, and saw cuts required. The contractor will place ditches and slopes as shown on the project cross section sheets. The earth excavation quantity does include the existing topsoil and pavement that must be stripped. The embankment quantity does include material to replace stripped topsoil and pavement in fill sections. The embankment quantity does not reflect shrinkage. Some excavation and embankment will be required to make a smooth transition into driveways; this is included in the earthwork figures. Additional driveway changes in slopes or ditch depths will not result in extra payment on this item. Additional grading in yards at the request of property owners will be included in Station Grading.

Some material excavated from ditches will not be suitable for embankment and will be disposed of at the contractor's expense.

All slopes in yard areas will be finished to Class A tolerance. Slopes not in yards will be trimmed to Class B tolerance (Section 205.03 page 138).

The Controlled Density Method (Section 205.03 page 135) of the Standard Specifications for Construction will apply. The Engineer will run density tests at his discretion.

Any salvaged gravel required to maintain local traffic will be included in the item of Station Grading.

The following is an approximate list of earthwork quantities (Note: Quantities below are compacted in place units, Subbase not included).

METHOD OF PAYMENT FOR STATION GRADING: The item of "Station Grading" will be paid for as a lump sum. The quantities listed above are approximate; any changes in quantity will not alter the lump sum pay quantity for Station Grading.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Station Grading	Lump Sum

SUBBASE, CIP: Section 301 of the Standard Specifications will apply. The contractor will furnish, place, compact and shape the material to obtain a minimum depth of 12 inch of Subbase for the length of the project. All Subbase will be Class II material.

The Subbase material will be compacted to not less than 95% of the maximum unit weight. Density tests will be done at the discretion of the Engineer.

METHOD OF PAYMENT FOR SUBBASE, CIP: The item of "Subbase, CIP" will be paid by the cubic yard, compacted-in-place.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Subbase, CIP	Cubic Yard

TOPSOIL SURFACE, LM: The existing topsoil will be stripped from the areas within the right-of-way or grading limits shown or as directed in the field, adjacent to roadway as detailed in the project description. The salvaged topsoil will be stockpiled for measurement. The item includes picking up, stockpiling, replacing and shaping the topsoil at least 3 inches deep.

Prior to seeding, the Contractor will be required to drag all front and back slopes that are 1 on 3 or flatter. Slopes that are steeper than 1 on 3 must be left in a relatively smooth condition. Slope preparation will be included in the item of Topsoil Surface, LM.

METHOD OF PAYMENT FOR TOPSOIL SURFACE, LM: The item of "Topsoil Surface, LM" will be paid for by the cubic yard as measured in the stockpile. The plan quantity is the maximum Cubic Yards that will be paid.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Topsoil Surface, LM	Cubic Yard

GEOTEXTILE, STABILIZATION: The item of "Geotextile, Stabilization" will include all labor, material and equipment to place material as instructed by the Engineer. Material will be in accordance with section 308 of the Standard Specifications.

METHOD OF PAYMENT FOR GEOTEXTILE, STABILIZATION: The item of "Geotextile, Stabilization" will be paid for by the square yard as measured in place.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Geotextile Stabilization	Square Yard

AGGREGATE, 6A: The item of "Aggregate, 6A" will include furnishing, hauling, placing, and shaping of the material. Material will meet MDOT 6A Specifications. This item is not shown on the plans, and will be used at the discretion of the Engineer. The item is intended to be used for pipe bedding over Geotextile Stabilization (separate item).

METHOD OF PAYMENT FOR AGGREGATE, 6A: The item of "Aggregate, 6A" will be paid for by the ton. Weight slips will be required.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Aggregate, 6A	Ton



SUBGRADE UNDERCUTTING, TYPE II: The item of “Subgrade Undercutting, Type II” will consist of cutting out undesirable material below the Subgrade and will include backfilling with Class II material (Section 205 Standard Specifications for Construction). Subgrade undercutting will be done only if requested by the Engineer. Backfill of Subgrade Undercutting will be compacted to not less than 95% of the Maximum Unit Weight. Tests will be run at the discretion of the Engineer. This item will also include all muck, morrow and peat excavation and backfill required up to 6 feet deep.

METHOD OF PAYMENT FOR SUBGRADE UNDERCUTTING, TYPE II: The item of “Subgrade Undercutting, Type II” will be paid for by the cubic yard as measured from the area actually excavated from the roadway. Backfill for the undercutting is included in the price for Subgrade Undercutting, Type II.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Subgrade Undercutting, Type II	Cubic Yard

SEWER, CULVERT AND END SECTIONS: The items of sewer, culvert, and end section will include all labor and material for placing the new storm sewer, culverts and end sections as specified. Excavating and backfilling will be included in the item of Sewer and Culverts. If any material more than 0.5 feet below the sewer or culvert is ordered to be removed by the Engineer, it will be paid for as “Subgrade Undercutting, Type II”.

Granular bedding and backfill will be included in the item of Sewer and Culverts.

All sewer, culverts, and end sections will be laid true to the lines and grades given, bells or grooves upgrade, ends fully and closely jointed, and each section will have a full, firm bearing throughout its length. All pipe sections/joint assemblies for use in culvert will be selected from the Qualified Products List for Watertight Sewer and Culvert Joint Systems. Pipes with diameters greater than 24 inch will have the pipe joints wrapped with a non-woven Geotextile fabric. The fabric will have a minimum width of 36 inch and will be centered on the joint.

It is the contractor’s responsibility to protect all new culverts and existing culverts to be left in place from damage by heavy equipment by ramping or other means necessary. All cross culverts and sewer will be placed prior to the machine grading unless approved by the Engineer.

All drainage structures and covers will meet the requirements of Section 403 of the 2012 MDOT Standard Specifications for Construction and the current MDOT Standard Plans R-1 thru R-24. They will be of the size noted on the plans or as directed by the Engineer in the field and will include all labor, material, equipment to furnish and install the drainage structures for a functional installation. Drainage Structure Covers will be the type noted on the plans.

Concrete Cross Culverts will be placed at the following locations:

METHOD OF PAYMENT FOR SEWER, CULVERT, AND END SECTION: The item of “Culvert” will be paid by the linear foot and the item of “End Section” will be paid for by the individual unit.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Sewer, CI E, ___ inch	Foot
Sewer, Perf, ___ inch	Foot
Culv End Sect, Conc, ___ inch	Each
Dr Structure, ___ inch dia	Each
Dr Structure Cover, Type ___	Each

UNDERDRAIN, SUBGRADE, 6 INCH: The item of “Underdrain, Subgrade, 6 inch” will include all labor, material and equipment to place the item as instructed by the Engineer.

Section 404 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR UNDERDRAIN, SUBGRADE 6 INCH: The item of “Underdrain, Subgrade, 6 inch” will be paid for by the linear foot.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Underdrain, Subgrade, 6 inch	Foot

#### DR STRUCTURE COVER

This item includes all equipment, labor, and material required to provide and install the drainage structure covers as shown on the plans.

#### METHOD OF PAYMENT FOR DR STRUCTURE COVER

The item of “Dr Structure Cover” shall be paid for by the individual unit.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Dr Structure Cover	Each

#### DR STRUCTURE, ADJ

This item includes all equipment, labor, and material required to adjust existing manholes and drainage structures to match the final surface elevation of the HMA.

#### METHOD OF PAYMENT FOR DR STRUCTURE, ADJ

The item of “Dr Structure, Adj” shall be paid for by the individual unit.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Dr Structure, Adj	Each

DRAINAGE STRUCTURE, TAP, 6 INCH: The item of “Drainage Structure, Tap, 6 inch” will include all labor, material and equipment to connect the Subgrade Underdrain to the existing drainage structures in accordance with Section 403 of the Standard Specifications.

METHOD OF PAYMENT FOR DRAINAGE STRUCTURE, TAP, 6 INCH: The item of “Drainage Structure, Tap, 6 inch” will be paid for each connection made to an existing structure.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Drainage Structure, Tap, 6 inch	Each

APPROACH, CL II: The item of “Approach, CI II” will include all labor, material and equipment to place and compact the material specified on the plans. Section 307 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR APPROACH, CL II: The item of “Approach, CI II” will be paid for by the ton. Weight slips will be required.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Approach, CI II	Ton

APPROACH, 21AA: The item of “Approach, 21AA” will include all labor, material and equipment to place and compact the material specified on the plans. This material will meet the requirements for dense-graded 21AA in accordance with Section 902 of the Standard Specifications for Construction. This item may be utilized for approaches throughout the project at the discretion of the Engineer.

Section 307 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR APPROACH, 21AA: The item of “Approach, 21AA” will be paid for by the ton. The pay quantity for this item shall not exceed more than 5% of the plan quantity unless the contractor has received a written work order from the Allegan County Road Commission. Amounts in excess of the plan quantity will not be considered for payment unless an error in calculations is proven.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Approach, 21AA	Ton

AGGREGATE BASE, 6 INCH: The item of “Aggregate Base, 6 inch” will include all labor, material and equipment to place, and compact the base course.

The contractor may use 22A gravel, 22A slag, 22A limestone, 22A recycled concrete, or cold-milled bituminous material, which approximates the gradation for 22A material. When milled bituminous material is used as aggregate base, the density provisions of Standard Specifications are not waived. Milled bituminous material may be used full depth or on top of 22A gravel to obtain the specified thickness. 22A gravel shall not be placed on top of bituminous millings.

“Aggregate Base, 6 inch” must be placed directly on top of the sand subbase. Salvaged gravel or any material not meeting 22A specification is not allowed between the aggregate base and the sand subbase.

Section 302 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR AGGREGATE BASE, 6 INCH: The item of “Aggregate Base, 6 inch” will be paid for by the square yard, compacted in place.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Aggregate Base, 6 inch	Square Yard

**HOT MIX ASPHALT (HMA):** This item includes furnishing, hauling and placing the required HMA mixture as indicated on the plans. This work will also include furnishing and applying Bond Coat, and cleaning and sweeping driveways and intersections. HMA material used in driveways and intersections will be included in the item of HMA, \_\_\_. No additional payment will be made for HMA approaches. No additional payment will be made for HMA valley curb. Sections 501 of the Standard Specifications will apply to these items with the following modifications:

Acceptance sampling and testing will be performed by the Engineer using the sampling method and testing option selected by the Engineer.

**Table 1: Uniformity Tolerance Limits for HMA Mixtures**

PARAMETER	TOP & LEVELING COURSE		BASE COURSE	
	* Range 1	Range 2	* Range 1	Range 2
Binder Content	± 0.40	± 0.50	± 0.40	± 0.50
% Passing # 8 and Larger Sieves	± 5.0	± 8.0	± 7.0	± 9.0
% Passing # 30 Sieve	± 4.0	± 6.0	± 6.0	± 9.0
% Passing # 200 Sieve	± 1.0	± 2.0	± 2.0	± 3.0
*This range allows for normal mixture and testing variations. The mixture shall be proportioned to test as closely as possible to the Job-Mix-Formula.				

## MIX DESIGNS

### HMA, 13A

1. The Contractor will submit a mix design with a range of 5.0 to 8.0 percent (effective bitumen) of bitumen content.
2. The Limits for the bitumen content of Range 1 will be ± 0.30 from the optimum mix design.
3. **PG 64-28** Performance Grade Asphaltic Cement HMA Material will be combined with the mineral aggregate.
4. The Contractor will submit a mix design and test results of the aggregates to be used at least two weeks before commencing paving. The mix design will be submitted to an approved testing laboratory for design compliance tests. The Road Commission will require a 1 point Marshall Test Mix Design.
5. All mix designs must be approved by the Engineer.

**Table 2: Mix Design Criteria and Volumetric Properties**

	Mixture No.				
	2C	3C	4C	13A	36A
Target Air Void, % (a)	3.00	3.50	3.50	3.00	4.00
VMA (min) (b)	11.00	13.00	14.00	14.00	15.00
VFA	65-78	65-78	65-78	65-78	65-78
Fines to Binder Ratio (max) (c)	1.2	1.2	1.2	1.2	1.2
Flow (0.01 inch)	8 -16	8 -16	8 -16	8 -16	8 -16
Stability (min), lbs	1200	1200	1200	900	900
a. Lower target air voids by 1.00% if used in a separate shoulder paving operation. Consider reducing air void targets to 3.00% for lower traffic volume roadways when designing 13A and 36A mixtures for local agency use.					
b. VMA calculated using Gsb of the combined aggregates.					
c. Ratio of the weight of aggregate passing the No. 200 sieve to total asphalt binder content by weight; including fines and binder contributed by RAP.					

**Table 3: Aggregate Properties**

	Mixture No.				
	2C	3C	4C	13A	36A
	Percent Passing Indicated Sieve or Property Limit				
1 ½ inch	100				
1 inch	91-100	100			
¾ inch	90 max.	91-100	100	100	
½ inch	78 max.	90 max.	91-100	75-95	100
⅜ inch	70 max.	77 max.	90 max.	60-90	92-100
No. 4	52 max.	57 max.	67 max.	45-80	65-90
No. 8	15-40	15-45	15-52	30-65	55-75
No. 16	30 max.	33 max.	37 max.	20-50	
No. 30	22 max.	25 max.	27 max.	15-40	25-45
No. 50	17 max.	19 max.	20 max.	10-25	
No. 100	15 max.	15 max.	15 max.	5-15	
No. 200	3-6	3-6	3-6	3-6	3-10
Crushed (min), % (MTM 117)	90	90	90	25	60
Soft Particle (max), % (a)	12.0	12.0	8.0	8.0	8.0
Angularity Index (min) (b)	4.0	4.0	4.0	2.5	3.0
L.A. Abrasion (max), % loss (c)	40	40	40	40	40
Sand Ratio (max) (d)	-	-	-	50	50

a. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 8.0 percent for aggregates used in top course. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 12.0 percent for aggregates used in base and leveling courses.

b. The fine aggregate angularity of blended aggregates, determined by MTM 118, must meet the minimum requirement. In mixtures containing RAP, the required minimum fine aggregate angularity must be met by the virgin material. NAA fine aggregate angularity must be reported for information only and must include the fine material contributed by RAP if present in the mixture.

c. Los Angeles abrasion maximum loss must be met for the composite mixture, however, each individual aggregate must be less than 50

d. Sand ratio for 13A and 36A no more than 50% of the material passing the No. 4 sieve is allowed to pass the No. 30 Sieve.

#### ROLLING HMA

Number of Rollers Method shall apply as a minimum requirement for this project. The Nuclear Gage Method for testing compaction may be used at the discretion of the Engineer.

Number of Rollers Required Based on Placement Rate:

AVERAGE LAY DOWN RATE SQUARE YARDS PER HOUR	NUMBER OF ROLLERS REQUIRED	
	COMPACTION ROLLERS	FINISH ROLLERS
LESS THAN 840	1	*1
840 – 1,800	1	1
1,800 – 3,950	2	1
3,950 – 7,200	3	1

\*The compaction roller may be used as the finish roller also.

METHOD OF PAYMENT FOR HMA: The item of HMA will be paid for by the Ton.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
HMA, 13A	Ton

RESTORATION: The item of "Restoration" will include all labor, material and equipment required to do the restoration. Restoration will consist of placing Seeding, Mixture TUF (220#/acre); Fertilizer, Chemical Nutrient, CI A (176#/acre); Mulch (2 ton/acre); and Mulch Anchoring. Place Mulch and Mulch Anchoring within one calendar day after seeding.

Section 816 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR RESTORATION: The item of "Restoration" will be paid for as a lump sum.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Restoration	Lump Sum

EXTENDED RESTORATION: The item of "Extended Restoration" will include all labor, material and equipment required to maintain the restoration of the construction site. The contractor shall be responsible for the permanent establishment of turf and maintaining the temporary and permanent soil erosion control measures for a period of one year from the date of final approval or when the site is stabilized and approved by the Engineer. This may include reseeding, maintaining check dams and spillways, and fixing erosion on site.

METHOD OF PAYMENT FOR EXTENDED RESTORATION: The item of "Extended Restoration" will be paid for as a lump sum.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Extended Restoration	Lump Sum

SEEDING, MIXTURE CR: The item "Seeding, Mixture CR" will include all labor, material and equipment to place the seed as instructed by the Engineer. When directed by the Engineer, cereal rye seed will be placed at a rate of 70 pounds per acre.

METHOD OF PAYMENT FOR SEEDING, MIXTURE CR: The item of "Seeding, Mixture CR" will be paid for by the pound.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Seeding, Mixture CR	Pound

SIGN, TYPE B, TEMP, MODIFIED: The item of “Sign, Type B, Temp, Modified” will include supplying all materials, equipment and labor required to erect and maintain construction signs as designated by the Engineer. Materials and placement will conform to the MDOT Standard Specifications for Construction and the Michigan Manual of Uniform Traffic Control Devices. Signs will be placed as instructed by the Engineer. All “CONSTRUCTION AHEAD” and “ROAD CLOSED AHEAD” signs will be 48” x 48” mounted on two posts with one steady burn light. (Steady burn light and posts are included in the Sign, Type B, Temp, Modified item).

METHOD OF PAYMENT FOR SIGN, TYPE B, TEMP, MODIFIED: The item of “Sign, Type B, Temp, Modified” will be paid for by the square foot of sign face.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Sign, Type B, Temp, Modified	Square Foot

PLASTIC DRUM, HIGH INTENSITY, LIGHTED, MODIFIED: The item of “Plastic Drum, High Intensity, Lighted, Modified” will include all labor, equipment and material to furnish, set up, move and maintain the drums as required by the Engineer. Drums will be equipped with one light.

Section 812 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR PLASTIC DRUM, HIGH INTENSITY, LIGHTED, MODIFIED: The item of “Plastic Drum, High Intensity, Lighted, Modified” will be paid for by the individual unit.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Plastic Drum, High Intensity, Lighted, Modified	Each

BARRICADE ,TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, MODIFIED: The item of “Barricade, Type III, High Intensity, Double Sided, Lighted, Modified” will include all labor, equipment and material to furnish, set up, move and maintain the barricades.

The Contractor will furnish and maintain Barricades, Type III with three lights and an R-11-4 Sign (ROAD CLOSED TO THRU TRAFFIC) mounted above the barricade. The R-11-4 sign will comply with and be paid as “Sign, Type B, Temp, Modified”.

Section 812 of the Standard Specifications for Construction will apply.

METHOD OF PAYMENT FOR BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, MODIFIED: The item of “Barricade, Type III, Double Sided, Lighted” will be paid for as individual units.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Barricade, Type III, High Intensity, Double Sided, Lighted, Modified	Each

RIPRAP, PLAIN: The item of "Riprap, Plain" will include all labor, equipment and material to place the Riprap as instructed by the Engineer. Section 813 of the Standard Specifications for Construction will apply to this item. The Riprap will be placed over Geotextile Fabric, included in this item.

METHOD OF PAYMENT FOR RIPRAP, PLAIN: The item of "Riprap, Plain" will be paid for by the square yard.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Riprap, Plain	Square Yard

MULCH BLANKET, HIGH VELOCITY: The item of "Mulch Blanket, High Velocity" will include all labor, material and equipment to place the blanket as instructed by the Engineer. Section 816 of the Standard Specifications for Construction will apply to this item.

The material for Mulch Blanket, High Velocity shall meet the specifications set on page 853 (Section 917.15) of the 2012 MDOT Standard Specifications for Construction.

The contractor will also seed following placement of Mulch Blanket, High Velocity with Seeding, Mixture TUF at the rate of 400 pounds per acre (included in this item).

METHOD OF PAYMENT FOR MULCH BLANKET, HIGH VELOCITY: The item of "Mulch Blanket, High Velocity" will be paid for by the square yard.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Mulch Blanket, High Velocity	Square Yard

EROSION CONTROL, SILT FENCE: The item of "Erosion Control, Silt Fence" will include all labor, material and equipment to place silt fence as instructed by the Engineer. Section 208 of the Standard Specifications for Construction will apply to this item.

METHOD OF PAYMENT FOR EROSION CONTROL, SILT FENCE: The item of "Erosion Control, Silt Fence" will be paid for by the linear foot.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Erosion Control, Silt Fence	Foot

PROJECT CLEANUP: The item of "Project Cleanup" will include all labor, material and equipment to pick up stone, sticks, branches, roots and other debris from the project.

This item will also include moving all mailboxes to a temporary location to be approved by the mail carrier and to reset the boxes permanently on the project. If new boxes or posts are required, they will be supplied by the Road Commission. Project Cleanup also includes placing a 1" x 3" with the respective property address written on it in the front yard of each residence to assist with identification for emergency vehicles.

METHOD OF PAYMENT FOR PROJECT CLEANUP: The item of "Project Cleanup" will be paid for as a lump sum.

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Project Cleanup	Lump Sum



ALLEGAN COUNTY ROAD COMMISSION  
ALLEGAN, MICHIGAN

GENERAL SPECIFICATIONS

MICHIGAN DEPARTMENT OF TRANSPORTATION-STANDARD SPECIFICATIONS

The work covered by the plans and specifications will be done in accordance with the 2012 Michigan Department of Transportation Standard Specifications for Construction, except as qualified in supplemental specifications and special conditions of the Allegan County Road Commission or as agreed to in writing at the time of the award of the contract.

DEFINITION OF TERMS

See Section 101 of Michigan Department of Transportation Standard Specifications for Construction.

SPECIAL CONDITIONS

Special requirements, regulations or directions applying to a particular project may be made a part of these specifications.

THE WORK

The work consists of the completed services, construction and/or paving by the Contract Documents and includes all materials and labor incorporated or to be incorporated therein.

RESPONSIBILITIES OF CONTRACTOR

A. Responsibility for and Supervision of Construction. Unless otherwise stated herein, Contractor will be solely responsible for all construction under this Contract, including the methods, techniques, sequences, procedures, and means, and for coordination of all work. Contractor will supervise and direct the work to the best of Contractor's ability, and give it all attention necessary for such proper supervision and direction. Contractor will notify the Road Commission of any anticipated pay item overruns or extras as soon as possible to allow for approval or design changes.

B. Discipline and Employment. Contractor will maintain at all times strict discipline among Contractor's employees, and contractor agrees not to employ for work on the project any person unfit for without sufficient skill to perform the job for which he or she was employed.

C. Furnishing of Labor, Materials, etc. Unless otherwise stated herein, Contractor will provide and pay for all labor, materials, and equipment, including tools, construction equipment, and machinery, utilities, including water, transportation, and all other facilities and services necessary for the proper completion of work on the project in accordance with the Contract Documents.

D. Payment of Taxes; Procurement of Licenses and Permits. Contractor will pay all taxes required by law in connection with work on the project in accordance with this agreement including sales, use, and similar taxes, and will secure all licenses and permits necessary for proper completion of the work, paying the fees for such licenses and permits.

E. Compliance with Laws and Regulations. Contractor will comply with all laws and ordinances, and the rules, regulations or orders of all public authorities relating to the performance of the work under and pursuant to this Agreement including, but not limited to, the Occupational Safety and Health Act of 1970, the Michigan Occupational Safety and Health Act, and the rules and regulations of the Michigan Construction Safety Commission.

## RESPONSIBILITIES OF CONTRACTOR (CON'T):

F. Responsibility for Negligence of Employees and Subcontractors. Contractor assumes full responsibility for acts, negligence or omissions of all of Contractor's employees on the project, for those of Contractor's subcontractors and their employees, and for those of all other persons doing work under a contract with Contractor.

G. Responsibility for Safety. Unless otherwise stated herein, at Contractor's expense, Contractor will take all necessary precautions (including, without limitation, the furnishing of traffic control, barricades, traffic control devices, flaggers, warning lights, signs, warning signs, safety channels, channelization devices, guards, fences, walks, flags, cables and lights) for the safety of, and the prevention of injury, loss and damage to, persons and property (including, without limitation, in the term persons, members of the public, employees, Contractor's subcontractors and their respective employees, other contractors, their subcontractors and respective employees) on, about or adjacent to the location where the work is being performed, and will comply with all applicable provisions of safety rules, ordinances, codes, regulations, and orders of duly-constituted public authorities including, but not limited to, the Michigan Manual of Uniform Traffic Control Devices.

H. Responsibility of Subcontractors. The Contractor will require any subcontractor hired by the Contractor for the purpose of performing any of the work described by the Contract documents to be bound by all of the terms and conditions of the Contract documents and to perform the work in accordance with the Contract documents. Each and every condition of the Contract documents, including without limitation, the RESPONSIBILITIES OF THE CONTRACTOR, will be made a condition of each subcontract entered into by the Contractor in conjunction with the performance of the work.

## INDEMNIFICATION

To the fullest extent permitted by law, the Contractor will indemnify, defend, and hold harmless The Board of County Road Commissioners of Allegan County, its officers, employees, representatives and agents from and against any and all claims, damages, demands, payments, suits, actions, recoveries, judgements, losses and expenses, including attorney fees, interest, and court costs, which are made, brought or recovered against the Board of County Road Commissioners of Allegan County, arising out of or resulting from performance of the Contractor's work under this Contract, provided that such claims, damages, losses, demands, payments, suits, actions, recoveries, judgements and/or expenses are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including loss of use resulting therefrom, but only if caused in whole or in part, by the act, omissions, fault, negligence or breach of the conditions of this Contract by negligent acts or omissions of the Contractor, the Contractor's sub-subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. The Contractor will not, however, be obligated to indemnify the Board of County Road Commissioners of Allegan County, for any damage or injuries caused by or resulting from the sole negligence of the Board of County Road Commissioners of Allegan County. Such obligation will not be construed to negate, abridge or otherwise reduce other rights or obligations of indemnity which would otherwise exist as a party or person described in this paragraph.

In claims against any person or entity indemnified under this Agreement by an employee of the Contractor, the Contractor's sub-subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this paragraph will not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or the Contractor's subcontractors under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

## INSURANCE

A. Contractor's Insurance. Prior to start of the Contractor's work, the Contractor will procure for the Contractor's work and maintain in force until the completion of the work, workers' compensation insurance, employer's liability insurance, comprehensive general liability insurance and all insurance required of the contract under the contract documents.

The Board of County Road Commissioners of Allegan County will be named as an additional insured on each of these policies except for worker's compensation.

The insurance will include contractual liability insurance covering the Contractor's obligations under its agreement of indemnification as set forth herein.

B. Minimum Limits of Liability. The Contractor's comprehensive general and automobile liability insurance as required herein, will be written with limits of liability not less than the following:

a. Comprehensive general liability including completed operations

(1) \$ 500,000 each occurrence

b. Property damage

(1) \$ 500,000 each occurrence

C. Number of Policies. Comprehensive general liability insurance and other liability insurance may be arranged under a single policy for the full limit required or by combination of underlying policies with the balance provided by an excess or umbrella liability policy.

D. Cancellation, Renewal or Modification. The Contractor will maintain in effect all insurance coverage required under this Agreement at the Contractor's sole expense and with insurance companies acceptable to the Board of County Road Commissioners of Allegan County.

All insurance policies will contain a provision that the coverage afforded thereunder will not be cancelled or not renewed nor restrictive modifications added at any time after a certificate of insurance required under agreement has been issued and before the work; as defined herein, has been completed, until at least thirty (30) days prior thereto written notice has been given to the Board of County Road Commissioners of Allegan County unless otherwise specifically required in the Contract Documents.

Certificates of insurance or certified copies of policies acceptable to the Board of County Road Commissioners of Allegan County will be filed with the Board of County Road Commissioners of Allegan County prior to the commencement of the Contractor's work.

In the event that the Contractor fails to obtain or maintain any insurance coverage required under this Agreement, the Board of County Road Commissioners of Allegan County may:

1. Purchase such coverage and charge the expense thereof to the Contractor, and
2. Withhold from any payment due or to become due to the Contractor an amount sufficient to protect the Board of County Road Commissioners of Allegan County from such claims, damages, demands, payments, suits, actions, recoveries, judgments, losses and expenses, including attorney fees, interest and court costs, and
3. Terminate this agreement.

Nothing contained in this Agreement, nor the Board of County Road Commissioners of Allegan County's compliance therewith, will relieve the Contractor from its obligations under the Contract to purchase and maintain required insurance or to indemnify the Board of County Road Commissioners of Allegan County.

### PROGRESS CLAUSE

The successful bidder will be required to submit a Progress Schedule, giving an outline of his proposed order of work and to indicate the dates for completion of the work. This outline, when approved by the Road Commission, will become a part of the contract.

### PROSECUTION OF THE WORK

The Contractor will begin the work within five (5) days after being notified by the Road Commission of the award of the contract, unless this is inconsistent with the Progress Schedule, in which case the Progress Schedule will govern. He will prosecute the work in the order given in the Progress Schedule, with force and equipment adequate to complete the sections within the time limit therein fixed for completion. In case of failure to proceed with the work as rapidly as is provided in the Progress Schedule, or if it appears at any time that such work is not being prosecuted in such a manner as to insure its completion within time specified, the Road Commission will have the right to require the contractor to furnish and place in operation such additional force and equipment as the Road Commission will deem necessary to bring the work up to the Progress Schedule; and in case of the Contractor's neglect to do so, the Road Commission may place such working force and equipment on the work and charge the Contractor the cost of the labor and such rental and depreciation rates for the plan and equipment as in its judgment is reasonable, and for such time as the plant and equipment are in service.

### ESTIMATED QUANTITIES

The quantities listed in the proposal are the estimated quantities. Increases or decreases in quantities will not be considered as a basis for adjustment in unit prices and Articles 109.03 of M.D.O.T. Standard Specifications for Construction will not apply in this regard.

### FINAL PAYMENT

Final payment will not be made until the contractor will have filed with the Board of County Road Commissioners the consent of the Surety of the payment of the final estimate and satisfactory evidence by affidavit or otherwise that all his indebtedness by reason of the contract has been fully paid or satisfactorily secured. In case such evidence is not furnished, the Road Commission may retain out of any amount due said contractor sums sufficient to cover all lienable claims unpaid.

### AFFIRMATIVE ACTION POLICY (EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER)

The Allegan County Road Commission will require the Contractor to submit an Affirmative Action Policy stating that they are an equal employment opportunity employer and will recruit, hire and promote in all job classifications without regard to race, color, religion, sex or national origin, except where sex is a bona fide occupational qualification. The Affirmative Action Policy will be signed by the Contractor or one of the Company's Authorized Officers.

### CONTRACT BONDS

The Successful Bidder will furnish satisfactory performance and lien bonds, each in the amount of not less than one hundred (100) percent of the total contract price. Such bonds will be on forms provided and will meet the regulations of the Allegan County Road Commission and the requirements specified in the laws of Michigan.

Bonds will not be required for contracts of less than \$5,000.00.

### M.D.O.T. – PREQUALIFICATION

Contractors bidding on this work must be pre-qualified by the Michigan Department of Transportation to do similar work on State or Federal-aid Secondary projects.

LIQUIDATED DAMAGES

Failure to complete the project on or before the completion date specified will be assessed according to the following schedule:

Original Contract Amount	Liquid Damages Per Calendar Day
\$ 0 to 49,999	75
50,000 to 99,999	150
100,000 to 499,999	450
500,000 to 999,999	900
1,000,000 to 1,999,999	1,300
2,000,000 to 4,999,999	1,550
5,000,000 to 9,999,999	2,650
10,000,000 and above	3,000

The liquidated damages may be waived if the contractor meets the requirements set forth in Section 108.07 of the 2012 Standard Specifications for Construction. Approval of the Engineer is required.

# STORM WATER POLLUTION PREVENTION



## Our Watershed, Our Responsibility

- A watershed is an area of land that catches rain and snow melt and drains into a river, lake, stream, or wetland. There are several major watersheds in Allegan County including the Kalamazoo River Watershed and the Macatawa Watershed.
- As citizens and contractors living and working in Allegan County, it is your duty to ensure that the surface waters of the community are kept clean and healthy.

## Where Do Storm Drains Go?

- Storm drains, catch basins, and ditches are directly connected to local waterways.
- This direct connection means that whatever enters the storm drain eventually enters a river, lake, stream or wetland.
- When fertilizer, yard waste, sediment, or other contaminants enter a storm drain, it has adverse effects on local waterways.



## Eliminating Illicit Discharges

- An illicit discharge is the discharge of pollutants to storm sewer systems via overland flow or direct dumping into catch basins.

- Illicit discharges are illegal! Reporting them can help eliminate the problem and keep our rivers and streams clean.

Report an illicit discharge to the Pollution Emergency Alerting System (PEAS) at (800) 292-5706 or to the Allegan County Road Commission at (269) 673-2184.

## Practicing Healthy Land Care

- Use a fertilizer that is organic slow-release with low or no phosphorus. Phosphorus is the main cause of algae growth in streams, which depletes the oxygen aquatic organisms need to survive.
- Get your soil tested through your county Michigan State University Extension office. This will tell you what fertilizer you should use, if any.
- Don't dump leaves or grass clippings down the drain or blow them into the street! Decaying leaves also deplete the oxygen in streams. They can be used as mulch, or they can be disposed of by curbside pick-up.

## Maintaining Your Fleet

- Leaky vehicles and construction machinery can easily cause stream contamination by tracking fluids and other pollutants off site, eventually draining into a catch basin
- You can prevent vehicle fluids from entering local bodies of water by ensuring that your vehicles and equipment are properly maintained and in good working condition.
- Proper disposal of chemicals and other waste is critical to the health of streams and rivers. Solid and liquid waste materials are not meant to be dumped in catch basins. Remember that catch basins are made for storm water only!



- Manage riparian land wisely! Leaving a buffer zone of 20 feet between lawns and streams prevents stream bank erosion, stops pollutants from reaching the stream, and creates a habitat for local wildlife.

## Managing Streets and Parking Lots

- Storm water runoff from streets and parking lots is a main cause of pollution because the storm water takes sediment and other solids with it into catch basins.
- The runoff from these impervious surfaces entering streams contains total suspended solids (TSS).
- Suspended solids make water in streams cloudy, which inhibits aquatic plant growth. This in turn affects the health of aquatic organisms that require oxygen from the aquatic plants.
- You can prevent this by keeping roads clean near the construction site and have a designated disposal area for cigarette butts and other small debris that can make its way into a catch basin.

Allegan County Road  
Commission  
1308 Lincoln Road  
Allegan, MI 49010  
(269) 673-2184 phone  
(269) 673-5922 fax

