



STATE OF MICHIGAN PROCUREMENT
 Michigan Department of Transportation
 425 W. Ottawa, Lansing, MI 48933

NOTICE OF CONTRACT

NOTICE OF CONTRACT NO. **200000000552**
 between
 THE STATE OF MICHIGAN
 and

CONTRACTOR	Carrier and Gable
	24110 Research Drive
	Farmington Hills, MI
	Frank Carrier
	(248) 477-8700
	FrankCarrier@carriergable.com
	CV0019173

STATE	Program Manager	Nathan Bouvy, P.E.	MDOT
		(517) 256-6140	
	Bouvyn1@michigan.gov		
	Contract Administrator	Klatra Pickett	MDOT
(517) 335-0071			
Pickettk1@michigan.gov			

CONTRACT SUMMARY			
DESCRIPTION: Traffic Signal Controller Units			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
March 13, 2020	March 12, 2025	5, 1 year renewal options	
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45			
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-card <input type="checkbox"/> Payment Request (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
MISCELLANEOUS INFORMATION			
DS 200000000025			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION			\$1,500,000.00

CONTRACT NO. 20000000562

FOR THE CONTRACTOR:

Carrier & Gable, Inc.
Company Name

Authorized Agent Signature

Joe Rodes
Authorized Agent (Print or Type)

3/10/2020
Date

FOR THE STATE:

Signature

Laura J. Mester, for the Department Director
Name & Title

Michigan Department of Transportation
Agency

Date



STATE OF MICHIGAN

STANDARD CONTRACT TERMS

This STANDARD CONTRACT (“**Contract**”) is agreed to between the State of Michigan (the “**State**”) and Carrier & Gable, Inc. (“**Contractor**”), Michigan Corporation. This Contract is effective on March 13, 2020 (“**Effective Date**”), and unless terminated, expires on March 12, 2025

This Contract may be renewed for five (5), one-year renewal options. Renewal is at the sole discretion of the State and will automatically extend the Term of this Contract. The State will document its exercise of renewal options via Contract Change Notice.

The parties agree as follows:

- 1. **Duties of Contractor.** Contractor must perform the services and provide the deliverables described in **Schedule A – Statement of Work** (the “**Contract Activities**”). An obligation to provide delivery of any commodity is considered a service and is a Contract Activity.

Contractor must furnish all labor, equipment, materials, and supplies necessary for the performance of the Contract Activities, and meet operational standards, unless otherwise specified in Schedule A.

Contractor must: (a) perform the Contract Activities in a timely, professional, safe, and workmanlike manner consistent with standards in the trade, profession, or industry; (b) meet or exceed the performance and operational standards, and specifications of the Contract; (c) provide all Contract Activities in good quality, with no material defects; (d) not interfere with the State’s operations; (e) obtain and maintain all necessary licenses, permits or other authorizations necessary for the performance of the Contract; (f) cooperate with the State, including the State’s quality assurance personnel, and any third party to achieve the objectives of the Contract; (g) return to the State any State-furnished equipment or other resources in the same condition as when provided when no longer required for the Contract; (h) not make any media releases without prior written authorization from the State; (i) assign to the State any claims resulting from state or federal antitrust violations to the extent that those violations concern materials or services supplied by third parties toward fulfillment of the Contract; (j) comply with all State physical and IT security policies and standards which will be made available upon request; and (k) provide the State priority in performance of the Contract except as mandated by federal disaster response requirements. Any breach under this paragraph is considered a material breach.

Contractor must also be clearly identifiable while on State property by wearing identification issued by the State, and clearly identify themselves whenever making contact with the State.

- 2. **Notices.** All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State:	If to Contractor:
Klatra Pickett 425 West Ottawa Street Lansing, MI 48909	Joe Rodes 24110 Research Drive

Pickettk1@michigan.gov 517-335-0071	Farmington Hills, MI 48335 JoeRodes@carriergable.com 248.477.8700
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3. **Contract Administrator.** The Contract Administrator for each party is the only person authorized to modify any terms of this Contract, and approve and execute any change under this Contract (each a “**Contract Administrator**”):

State:	Contractor:
Klatra Pickett 425 West Ottawa Street Lansing, MI 48909 Pickettk1@michigan.gov 517-335-0071	Frank Carrier 24110 Research Drive Farmington Hills, MI 48335 FrankCarrier@carriergable.com 248.477.8700

4. **Program Manager.** The Program Manager for each party will monitor and coordinate the day-to-day activities of the Contract (each a “**Program Manager**”):

State:	Contractor:
Nathan Bouvy, P.E. Traffic Signal Operations Engineer Michigan Department of Transportation 6333 Lansing Road Lansing, MI 48917 C: (517) 256-6140 Bouvyn1@michigan.gov	Kiel McIntosh, P.E. Sales Engineer 24110 Research Drive Farmington Hills, MI 48335 KielMcIntosh@carriergable.com 248.477.8700

5. **Performance Guarantee.** Contractor must at all times have financial resources sufficient, in the opinion of the State, to ensure performance of the Contract and must provide proof upon request. The State may require a performance bond (as specified in Schedule A) if, in the opinion of the State, it will ensure performance of the Contract.

6. **Insurance Requirements.** Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by a company with an A.M. Best rating of "A-" or better, and a financial size of VII or better.

Required Limits	Additional Requirements
Commercial General Liability Insurance	
<u>Minimum Limits:</u> \$1,000,000 Each Occurrence Limit	Contractor must have their policy endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds using endorsement CG

<p>\$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit</p> <p>\$2,000,000 Products/Completed Operations</p>	<p>20 10 11 85, or both CG 2010 07 04 and CG 2037 07 04.</p>
<p>Umbrella or Excess Liability Insurance Reserved</p>	
<p>Automobile Liability Insurance</p>	
<p><u>Minimum Limits:</u> \$1,000,000 Per Accident</p>	<p>Contractor must have their policy: (1) endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.</p>
<p>Workers' Compensation Insurance</p>	
<p><u>Minimum Limits:</u> Coverage according to applicable laws governing work activities.</p>	<p>Waiver of subrogation, except where waiver is prohibited by law.</p>
<p>Employers Liability Insurance</p>	
<p><u>Minimum Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.</p>	
<p>Privacy and Security Liability (Cyber Liability) Insurance Reserved</p>	

If any of the required policies provide **claims-made** coverage, the Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of Contract Activities; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Contract Activities; and (c) if coverage is cancelled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or delivery order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not to be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

7. **Reserved.**

8. **Reserved.**

9. **Independent Contractor.** Contractor is an independent contractor and assumes all rights, obligations and liabilities set forth in this Contract. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor.

Contractor hereby acknowledges that the State is and will be the sole and exclusive owner of all right, title, and interest in the Contract Activities and all associated intellectual property rights, if any. Such Contract Activities are works made for hire as defined in Section 101 of the Copyright Act of 1976. To the extent any Contract Activities and related intellectual property do not qualify as works made for hire under the Copyright Act, Contractor will, and hereby does, immediately on its creation, assign, transfer and otherwise convey to the State, irrevocably and in perpetuity, throughout the universe, all right, title and interest in and to the Contract Activities, including all intellectual property rights therein.

10. **Subcontracting.** Contractor may not delegate any of its obligations under the Contract without the prior written approval of the State. Contractor must notify the State at least 90 calendar days before the proposed delegation and provide the State any information it requests to determine whether the delegation is in its best interest. If approved, Contractor must: (a) be the sole point of contact regarding all contractual matters, including payment and charges for all Contract Activities; (b) make all payments to the subcontractor; and (c) incorporate the terms and conditions contained in this Contract in any subcontract with a subcontractor. Contractor remains responsible for the completion of the Contract Activities, compliance with the terms of this Contract, and the acts and omissions of the subcontractor. The State, in its sole discretion, may require the replacement of any subcontractor.

11. **Staffing.** The State's Contract Administrator may require Contractor to remove or reassign personnel by providing a notice to Contractor.

12. **Background Checks.** Pursuant to Michigan law, all agencies subject to IRS Pub. 1075 are required to ask the Michigan State Police to perform fingerprint background checks on all employees, including Contractor and Subcontractor employees, who may have access to any database of information maintained by the federal government that contains confidential or personal information, including, but not limited to, federal tax information. Further, pursuant to Michigan law, any agency described above is prohibited from providing Contractors or Subcontractors with the result of such background check. For more information, please see Michigan Public Act 427 of 2018. Upon request, or as may be specified in Schedule A, Contractor must perform background checks on all employees and subcontractors and its employees prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks.

13. **Assignment.** Contractor may not assign this Contract to any other party without the prior approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party. If the State determines that a novation of the Contract to a third party is necessary, Contractor will agree to the novation and provide all necessary documentation and signatures.
14. **Change of Control.** Contractor will notify within 30 days of any public announcement or otherwise once legally permitted to do so, the State of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock; (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

15. **Ordering.** Contractor is not authorized to begin performance until receipt of authorization as identified in Schedule A.
16. **Acceptance.** Contract Activities are subject to inspection and testing by the State within 30 calendar days of the State's receipt of them ("**State Review Period**"), unless otherwise provided in Schedule A. If the Contract Activities are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the Contract Activities are accepted but noted deficiencies must be corrected; or (b) the Contract Activities are rejected. If the State finds material deficiencies, it may: (i) reject the Contract Activities without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with Section 23, Termination for Cause.

Within 10 business days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any Contract Activities, Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable Contract Activities to the State. If acceptance with deficiencies or rejection of the Contract Activities impacts the content or delivery of other non-completed Contract Activities, the parties' respective Program Managers must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the order in whole or in part. The State, or a third party identified by the State, may perform the Contract Activities and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

17. **Delivery.** Contractor must deliver all Contract Activities F.O.B. destination, within the State premises with transportation and handling charges paid by Contractor, unless otherwise specified in Schedule A. All containers and packaging become the State's exclusive property upon acceptance.
18. **Risk of Loss and Title.** Until final acceptance, title and risk of loss or damage to Contract Activities remains with Contractor. Contractor is responsible for filing, processing, and collecting all damage claims. The State will record and report to Contractor any evidence of visible damage. If the State rejects the Contract Activities, Contractor must remove them from the premises within 10 calendar days after notification of rejection. The risk of loss of rejected or non-conforming Contract Activities remains with Contractor. Rejected Contract Activities not removed by Contractor within 10 calendar days will be deemed abandoned by Contractor, and the State will have the right to dispose of it as its own property. Contractor must reimburse the State for costs and expenses incurred in storing or effecting removal or disposition of rejected Contract Activities.
19. **Warranty Period.** The warranty period, if applicable, for Contract Activities is a fixed period commencing on the date specified in Schedule A. If the Contract Activities do not function as warranted during the warranty period, the State may return such non-conforming Contract Activities to the Contractor for a full refund.

- 20. Terms of Payment.** Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Contract Activities performed as specified in Schedule A. Invoices must include an itemized statement of all charges. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services purchased under this Agreement are for the State's exclusive use. All prices are exclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify Contractor of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Contract Activities. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/SIGMAVSS> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

- 21. Liquidated Damages.** Liquidated damages, if applicable, will be assessed as described in Schedule A.
- 22. Stop Work Order.** The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Contract or delivery order. The State will not pay for Contract Activities, Contractor's lost profits, or any additional compensation during a stop work period.
- 23. Termination for Cause.** The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (a) endangers the value, integrity, or security of any location, data, or personnel; (b) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (c) engages in any conduct that may expose the State to liability; (d) breaches any of its material duties or obligations; or (e) fails to cure a breach within the time stated in a notice of breach. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a Termination for Convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in Section 24, Termination for Convenience.

The State will only pay for amounts due to Contractor for Contract Activities accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Contract Activities from other sources.

- 24. Termination for Convenience.** The State may immediately terminate this Contract in whole or in part without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Contract Activities immediately, or (b) continue to perform the Contract Activities in accordance with Section 25, Transition Responsibilities. If the

State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities.

- 25. Transition Responsibilities.** Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract Activities to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Contract Activities to the State or its designees. Such transition assistance may include, but is not limited to: (a) continuing to perform the Contract Activities at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Contract Activities, training, equipment, software, leases, reports and other documentation, to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to Contractor by any entity, agent, vendor, or employee of the State; (d) transferring title in and delivering to the State, at the State's discretion, all completed or partially completed deliverables prepared under this Contract as of the Contract termination date; and (e) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, "**Transition Responsibilities**"). This Contract will automatically be extended through the end of the transition period.
- 26. General Indemnification.** Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any intellectual property right or other right of any third party; (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable); and (d) any acts or omissions of Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense if the State deems necessary. Contractor will not, without the State's written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. To the extent that any State employee, official, or law may be involved or challenged, the State may, at its own expense, control the defense of that portion of the claim.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

- 27. Infringement Remedies.** If, in either party's opinion, any piece of equipment, software, commodity, or service supplied by Contractor or its subcontractors, or its operation, use or reproduction, is likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor must, at its expense: (a) procure for the State the right to continue using the equipment, software, commodity, or service, or if this option is not reasonably available to Contractor, (b) replace or modify the same so that it becomes non-infringing; or (c) accept its return by the State with appropriate credits to the State against Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

28. **Limitation of Liability and Disclaimer of Damages. IN NO EVENT WILL THE STATE'S AGGREGATE LIABILITY TO CONTRACTOR UNDER THIS CONTRACT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT, EXCEED THE MAXIMUM AMOUNT OF FEES PAYABLE UNDER THIS CONTRACT.** The State is not liable for consequential, incidental, indirect, or special damages, regardless of the nature of the action.
29. **Disclosure of Litigation, or Other Proceeding.** Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a subcontractor, or an officer or director of Contractor or subcontractor, that arises during the term of the Contract, including: (a) a criminal Proceeding; (b) a parole or probation Proceeding; (c) a Proceeding under the Sarbanes-Oxley Act; (d) a civil Proceeding involving: (1) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or (2) a governmental or public entity's claim or written allegation of fraud; or (e) a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.
30. **State Data.** All data and information provided to Contractor by or on behalf of the State, and all data and information derived therefrom, is the exclusive property of the State ("**State Data**"); this definition is to be construed as broadly as possible. Upon request, Contractor must provide to the State, or a third party designated by the State, all State Data within 10 calendar days of the request and in the format requested by the State. Contractor will assume all costs incurred in compiling and supplying State Data. No State Data may be used for any marketing purposes.
31. **Reserved.**
32. **Non-Disclosure of Confidential Information.** The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties. The provisions of this Section survive the termination of this Contract.
- a. Meaning of Confidential Information. For the purposes of this Contract, the term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). For purposes of this Contract, in all cases and for all matters, State Data is deemed to be Confidential Information.
- b. Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor's responsibilities; and (c) Contractor obligates the subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.
- c. Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.

- d. Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.
- e. Surrender of Confidential Information upon Termination. Upon termination of this Contract or a Statement of Work, in whole or in part, each party must, within 5 calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control; provided, however, that Contractor must return State Data to the State following the timeframe and procedure described further in this Contract. Should Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and must certify the same in writing within 5 calendar days from the date of termination to the other party. However, the State's legal ability to destroy Contractor data may be restricted by its retention and disposal schedule, in which case Contractor's Confidential Information will be destroyed after the retention period expires.

33. **Reserved.**

34. **Reserved.**

35. **Reserved.**

36. **Records Maintenance, Inspection, Examination, and Audit.** The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to the Contract through the term of the Contract and for 4 years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Contract Activities are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If any financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid or refunded within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

37. **Warranties and Representations.** Contractor represents and warrants: (a) Contractor is the owner or licensee of any Contract Activities that it licenses, sells, or develops and Contractor has the rights necessary to convey title, ownership rights, or licensed use; (b) all Contract Activities are delivered free from any security interest, lien, or encumbrance and will continue in that respect; (c) the Contract Activities will not infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party; (d) Contractor must assign or otherwise transfer to the State or its designee any manufacturer's warranty for the Contract Activities; (e) the Contract Activities are merchantable and fit for the specific purposes identified in the Contract; (f) the Contract signatory has the authority to enter into this Contract; (g) all information furnished by Contractor in connection with the Contract fairly and accurately represents Contractor's business, properties, finances, and operations as of the dates covered by the information, and Contractor will inform the State of any material adverse changes; (h) all information furnished and representations made in connection with the award of this Contract is true, accurate, and complete, and contains no false statements or omits any fact that would make the information misleading; and that (i) Contractor is neither currently engaged in nor will engage in the boycott of a person based in or doing business with a strategic partner as described in 22 USC 8601 to 8606. A breach

of this Section is considered a material breach of this Contract, which entitles the State to terminate this Contract under Section 23, Termination for Cause.

38. **Conflicts and Ethics.** Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.
39. **Compliance with Laws.** Contractor must comply with all federal, state and local laws, rules and regulations.
40. **Prevailing Wage.** Contractor must comply with prevailing wage requirements, to the extent applicable to this Contract. Questions can be directed to the stated Contract Compliance employee and or by calling the United States Department of Labor at 866-4-USWAGE (866-487-9243), or you can visit their web site at www.dol.gov
41. **State Printing.** All printing in Michigan must be performed by a business that meets *one* of the following: (a) have authorized use of the Allied Printing Trades Council union label in the locality in which the printing services will be performed; (b) have on file with the Michigan Secretary of State, a sworn statement indicating that employees producing the printing are receiving prevailing wages and are working under conditions prevalent in the locality in which the printing services will be performed; or (c) have a collective bargaining agreement in effect and the employees are represented by an operations that is not influenced or controlled by management.
42. **Nondiscrimination.** Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, and [Executive Directive 2019-09](#). Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex (as defined in Executive Directive 2019-09), height, weight, marital status, partisan considerations, any mental or physical disability, or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position. Breach of this covenant is a material breach of this Contract.
43. **Unfair Labor Practice.** Under MCL 423.324, the State may void any Contract with a Contractor or subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.
44. **Governing Law.** This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in Michigan Court of Claims. Contractor consents to venue in Ingham County, and waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.
45. **Non-Exclusivity.** Nothing contained in this Contract is intended nor will be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Contract Activities from other sources.
46. **Force Majeure.** Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party.
47. **Dispute Resolution.** The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties

will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.

Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely or fails to respond within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.

48. **Media Releases.** News releases (including promotional literature and commercial advertisements) pertaining to the Contract or project to which it relates must not be made without prior written State approval, and then only in accordance with the explicit written instructions of the State.
49. **Website Incorporation.** The State is not bound by any content on Contractor's website unless expressly incorporated directly into this Contract.
50. **Schedules.** All Schedules and Exhibits that are referenced herein and attached hereto are hereby incorporated by reference. The following Schedules are attached hereto and incorporated herein:

Schedule A	Statement of Work
Schedule B	Pricing
Attachment A	MDOT – Region Map/Statewide (per DTMB)
Attachment B	Special Provision-12SG820(A145)
Federal Provisions Addendum	
Byrd Anti-Lobbying Certification	

51. **Entire Agreement and Order of Precedence.** This Contract, which includes Schedule A – Statement of Work, and schedules and exhibits which are hereby expressly incorporated, is the entire agreement of the parties related to the Contract Activities. This Contract supersedes and replaces all previous understandings and agreements between the parties for the Contract Activities. If there is a conflict between documents, the order of precedence is: (a) first, this Contract, excluding its schedules, exhibits, and Schedule A – Statement of Work; (b) second, Schedule A – Statement of Work as of the Effective Date; and (c) third, schedules expressly incorporated into this Contract as of the Effective Date. NO TERMS ON CONTRACTOR'S INVOICES, ORDERING DOCUMENTS, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE CONTRACT ACTIVITIES WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE, EVEN IF ACCESS TO OR USE OF THE CONTRACT ACTIVITIES REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.
52. **Severability.** If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.
53. **Waiver.** Failure to enforce any provision of this Contract will not constitute a waiver.
54. **Survival.** The provisions of this Contract that impose continuing obligations, including warranties and representations, termination, transition, insurance coverage, indemnification, and confidentiality, will survive the expiration or termination of this Contract.

55. **Contract Modification.** This Contract may not be amended except by signed agreement between the parties (a "**Contract Change Notice**"). Notwithstanding the foregoing, no subsequent Statement of Work or Contract Change Notice executed after the Effective Date will be construed to amend this Contract unless it specifically states its intent to do so and cites the section or sections amended.

Federal Provisions Addendum

The provisions in this addendum may apply if the purchase will be paid for in whole or in part with funds obtained from the federal government. If any provision below is not required by federal law for this Contract, then it does not apply and must be disregarded. If any provision below is required to be included in this Contract by federal law, then the applicable provision applies, and the language is not negotiable. If any provision below conflicts with the State's terms and conditions, including any attachments, schedules, or exhibits to the State's Contract, the provisions below take priority to the extent a provision is required by federal law; otherwise, the order of precedence set forth in the Contract applies. Hyperlinks are provided for convenience only; broken hyperlinks will not relieve Contractor from compliance with the law.

- 1. Federally Assisted Construction Contracts.** If this contract is a “**federally assisted construction contract**” as defined in [41 CRF Part 60-1.3](#), and except as otherwise may be provided under [41 CRF Part 60](#), then during performance of this Contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Contractor will comply with all provisions of [Executive Order 11246](#) of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Contractor will furnish all information and reports required by [Executive Order 11246](#) of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in [Executive Order 11246](#) of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in [Executive Order 11246](#) of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of [Executive Order 11246](#) of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

2. Davis-Bacon Act (Prevailing Wage)

- a. If applicable, the Contractor (and its Subcontractors) for **prime construction contracts** in excess of \$2,000 must comply with the Davis-Bacon Act ([40 USC 3141-3148](#)) as supplemented by Department of Labor regulations ([29 CFR Part 5](#), "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction").
- b. The Contractor (and its Subcontractors) shall pay all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and the laborers and mechanics;
- c. The Contractor will post the scale of wages to be paid in a prominent and easily accessible place at the site of the work;
- d. There may be withheld from the Contractor so much of accrued payments as the contracting officer considers necessary to pay to laborers and mechanics employed by the Contractor or any Subcontractor on the work the difference between the rates of wages required by the Contract to be paid laborers and mechanics on the work and the rates of wages received by the laborers and mechanics and not refunded to the Contractor or Subcontractors or their agents.

3. **Copeland “Anti-Kickback” Act.** If applicable, the Contractor must comply with the [Copeland “Anti-Kickback” Act \(40 USC 3145\)](#), as supplemented by Department of Labor regulations ([29 CFR Part 3](#), “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”), which prohibits the Contractor and subrecipients from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.
4. **Contract Work Hours and Safety Standards Act.** If the Contract is **in excess of \$100,000** and **involves the employment of mechanics or laborers**, the Contractor must comply with [40 USC 3702](#) and [3704](#), as supplemented by Department of Labor regulations ([29 CFR Part 5](#)), as applicable.
5. **Rights to Inventions Made Under a Contract or Agreement.** If the Contract is funded by a federal “funding agreement” as defined under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.
6. **Clean Air Act.** If this Contract is **in excess of \$150,000**, the Contractor must comply with all applicable standards, orders, and regulations issued under the Clean Air Act (42 USC 7401-7671q) and the Federal Water Pollution Control Act (33 USC 1251-1387). Violations must be reported to the federal awarding agency and the regional office of the Environmental Protection Agency.
7. **Debarment and Suspension.** A “contract award” (see [2 CFR 180.220](#)) must not be made to parties listed on the government-wide exclusions in the [System for Award Management \(SAM\)](#), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.
8. **Byrd Anti-Lobbying Amendment.** If this Contract **exceeds \$100,000**, bidders and the Contractor must file the certification required under [31 USC 1352](#).
9. **Procurement of Recovered Materials.** Under [2 CFR 200.322](#), a non-Federal entity that is a state agency or agency of a political subdivision of a state **and its contractors** must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at [40 CFR part 247](#) that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

Byrd Anti-Lobbying Certification

The following certification and disclosure regarding payments to influence certain federal transactions are made under FAR 52.203-11 and 52.203-12 and [31 USC 1352](#), the "Byrd Anti-Lobbying Amendment." Hyperlinks are provided for convenience only; broken hyperlinks will not relieve Contractor from compliance with the law.

1. [FAR 52.203-12](#), "Limitation on Payments to Influence Certain Federal Transactions" is hereby incorporated by reference into this certification.
2. The bidder, by submitting its proposal, hereby certifies to the best of his or her knowledge and belief that:
 - a. No federal **appropriated** funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress on his or her behalf in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan, or cooperative agreement;
 - b. If any funds **other than federal appropriated funds** (including profit or fee received under a covered federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress on his or her behalf **in connection with this solicitation**, the bidder must complete and submit, with its proposal, [OMB standard form LLL, Disclosure of Lobbying Activities](#), to the Solicitation Manager; and
 - c. He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$150,000 must certify and disclose accordingly.
3. This certification is a material representation of fact upon which reliance is placed at the time of Contract award. Submission of this certification and disclosure is a prerequisite for making or entering into this Contract under [31 USC 1352](#). Any person making an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision is subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

Signed by:

_____ Carrier & Gable, Inc.

Date: 1/24/2020

STATE OF MICHIGAN

SCHEDULE A STATEMENT OF WORK CONTRACT ACTIVITIES

SCOPE

The Michigan Department of Transportation (MDOT), Transportation Systems Management and Operations Division, (TSMO) and Signal Operations Unit, will be installing traffic signal controller units, furnished from the Contractor, to support the integration of a new statewide central signal control system (CSCS) AND as needed due to damage, scheduled maintenance and or areas that are deemed high priority. This work consists of furnishing a National Electrical Manufacturers' Association (NEMA) Type Advanced Transportation Controller (ATC) Signal Controller Unit (CU). Traffic signal cabinets are not included in the CU item and will not be purchased as part of this Contract.

This contract will be used within the seven (7) MDOT regions (Reference Attachment A).

This Contract is for the following brand name CUs as specified within the attached Special Provision - #12SG820(A145).

Econolite Cobalt

Any submitted alternate model must be tested and approved by MDOT and the National Electrical Manufacturers Association (NEMA) pending testing will not be will not be justification to delay MDOTs stated project and usage.

REQUIREMENTS

1. General Requirements

- A. The Contractor will provide new traffic signal controllers and conform to all applicable industry standards including but not limited to the following: Occupational Safety & Health Administration and Michigan Occupational Safety & Health Administration (OSHA & MIOSHA), Michigan Manual on Uniform Traffic Control Devices (MMUTCD), National Electrical Safety (NES), National Electrical Manufacturers Association (NEMA), National Electrical Safety Code (NESC), American National Standards (ANSI), American Association of State Highway and Transportation Officials (AASHTO), and Institute of Transportation Engineers (ITE).
- B. Delivery Orders issued against this contract in excesses of \$2,000, will be applicable to the Davis-Bacon and Related Acts apply to contractors and subcontractors performing on federally funded or assisted contracts in for the construction, alteration, or repair (including painting and decorating) of public buildings or public works. Davis-Bacon Act and Related Act contractors and subcontractors must pay their laborers and mechanics employed under the contract no less than the locally prevailing wages and fringe benefits for corresponding work on similar projects in the area.
- C. Usage of this contract will be for BOTH CSCS support and statewide maintenance and unless stated otherwise, work under this contract shall be done in accordance with the currently published MDOT Standard Specifications for Construction and as directed by the issuing MDOT contact as stated on the delivery order and/or the MDOT Program Manager. Reference the following web address: <https://mdotjboss.state.mi.us/SpecProv/specBookHome.htm>
- D. At no additional cost to MDOT, the Contractor will be responsible to ensure installed firmware* is regularly upgraded to the approved versions.

*The firmware version referenced in the special provision was current in September 2019

- E. Except where noted the quantities of CUs are unknown and will be requested as needed.
- F. Provided CUs will be installed in a universal signal controller cabinet that meets current or legacy MDOT cabinet specifications. Provided CUs will be installed in NEMA traffic signal cabinets that meets current or legacy MDOT cabinet specifications.

Web link to NEMA cabinet specifications

https://mdotcf.state.mi.us/public/dessssp/spss_source/12SP-820QQ-02.pdf

1.1. Product Specifications

- A. The Contractor traffic signal controller and applicable equipment will meet or exceed the requirements as stated within the attached special provision - #12SG820(A145)
- B. Traffic signal controllers will be new and the current model in production.
- C. Traffic signal controllers will be delivered fully assembled and equipped for immediate installation and usage
- D. Contractor to provide Technical Data Sheet AND Safety Data Sheets.
- E. Provided Controllers will include applicable parts as defined within the attached special provision and applicable manufacturer parts.
- F. Management Information Bases (MIBs)
 - (i) Contractor will provide and make available to MDOT the MIBs
 - (ii) MIBs will be industry standard electronic media forms, to include, such as MIB text and “translator” files, and Portable Document Format (PDF) formats, required for a third-party signal control software to provide all CU functionality via remote software application
 - (iii) Contractor will provide updated MIBs with each controller firmware update through the entire contract period and one-year software warranty period.
 - (iv) MDOT reserves the right to make the MIBs available to third-party software developers contracted with the State of Michigan for custom integration of controller features.
- G. CU Connector Cables – Modified

As requested, Contractor will provide modified CU connector cables for cabinets currently in use. Contractor will be given make and model of current cabinet on delivery order.

The Contractor is responsible for providing a list of applicable parts and service items for connector cables on Schedule B.

1.2. Installation

The CU and or equipment will be installed by MDOT, using the standards as stated per current MDOT Standard Specifications for Construction Manual. Reference, current sections 819 and 820, within the manual.

1.3. Warranties

The Contractor will provide the following warranties to include parts and labor that will begin on installation date. Installation date is expected within 90 days of delivery.

- A. CU Firmware
Contractor will provide a one (1) year warranty or greater for the CU firmware.
- B. CU Hardware
Contractor will provide the manufacturer's or vendor's warranty at a minimum of 2 years for CU Hardware
- C. *CUs will be installed in a NEMA traffic signal cabinet that meets current or legacy MDOT cabinet specifications.*

Reference: (https://mdotcf.state.mi.us/public/dessssp/spss_source/12SP-820QQ-02.pdf)

The State reserves the right to require additional warranties other than those identified in this RFP

Contractor to describe warranty process and provide warranty contact below.

All Cobalt controller hardware will be warranted for two (2) years. All repairs should be shipped to the following location:

Carrier & Gable, Inc.
c/o Lavar Depriest
24110 Research Drive
Farmington Hills, MI 48337

When a controller unit (CU) is in need of warranty repair, the CU can be returned to, or picked up by Carrier & Gable, Inc for triage to determine the necessary course of action. When necessary to send the unit to the manufacturer for repair, Carrier & Gable will handle the shipping of the unit. The CU will be returned to when the repair is completed.

If a CU is found to be non-functional on initial set up out of the box, C&G will immediately replace the unit with another new unit and take back the non-functional CU.

1.3 Warranty	First Point of Contact
Employee Name:	Lavar Depriest
Employee Title:	Customer Service Agent
Employee Office phone:	248.477.8700
Employee Cell phone:	
Employee email:	lavardetriest@carriergable.com

1.4. Recall Requirements and Procedures

The Contractor guarantees that all product, equipment, and or parts, supplied shall be free from defects in material and workmanship.

When equipment defects are known, the Contractor will immediately notify MDOT and assist with any removal and replacement of defected parts at no additional cost.

2. Service Levels

2.1. Delivery – Time Frames and Hours

Delivery will be accepted between the hours of 7:30 and 3:30pm Monday thru Friday.

Work will not be ordered or scheduled on State Holiday unless prior approval is submitted by designated MDOT Program Manager.

The receipt of order date is pursuant to Section 2, Notices, of the Standard Contract Terms.

Non- Emergency

Delivery will be expected within [30] calendar days upon date of order. Delivery will be made to MDOT's statewide division offices and regional locations per the direction of the delivery order.

Contractor will notify MDOT within 48 hours of scheduled delivery for non-emergency orders.

Emergency

Emergency Orders will be expected within 24hours, regardless of the day ordered.

2.2 Delivery – Transportation Method

The Contractor must explain the transportation method (e.g., UPS, FedEx, Contractor fleet, or other third party carrier) it intends on utilizing in delivery of the Contract Activities.

Contractor must identify transportation method:

C&G will utilize the best method to deliver the Cobalt Controllers. This could include both Contractor Fleet vehicles, and/or FedEx and UPS.

2.3. Packaging and Palletizing

Contractor will ensure packaging and palletizing comply as stated within special provision - #12SG820(A145) AND included in price as listed in Schedule B.

2.4. Technical Support and Repairs

A. Technical Support

Usage of this contract will be for BOTH CSCS support and statewide maintenance. Requested support will be responded to and resolved within one (1) hour of request, during weekday and weekend.

The Contractor will assign personnel that will have the following minimum experience:

- Five or more years of signal controller programming experience
- Experience with MDOT's signal controller cabinets, conflict monitor devices, and vehicle detection systems; and
- Excellent communications skills

If the caller's issue cannot be resolved within [1] hour, on-site service must be scheduled. The on-site service must be performed within [24] hours of the time the issue was scheduled for service and the issue must be resolved.

Failure to consistently respond within stated time frames, will be considered noncompliance to contract activities and result in documentation, as described in section 2.7 Correction of Non-Compliance.

MDOT Purchasing Unit, must be notified of removal of stated technical support personnel within 24 hours.

Removal to include resignation, re-assignment, medical leave or termination.

2.4 - Field Support	First Point of Contact
Employee Name:	Mike Schasser
Employee Title:	Technical Sales
Employee Office phone:	248.477.8700
Employee Cell phone:	586.206.0009
Employee email:	mikeschasser@carriergable.com

2.4 - Field Support	Secondary Point of Contact
Employee Name:	Eric Vogel
Employee Title:	Technical Sales
Employee Office phone:	248.477.8700
Employee Cell phone:	269.569.2209
Employee email:	ericvogel@carriergable.com

2.4 – Emergency Contact	24 hours a day 7 days a week
Employee Name:	Scott Greiner
Employee Title:	Vice President of Tech Department
Employee Office phone:	248.477.8700
Employee Cell phone:	586.929.3302
Employee email:	sgreiner@carriergable.com

B. Technical Support Cost

No additional payment to provide technical support will be accepted. The cost of the technical support shall be included in the Controller Unit pay item.

C. Repairs

Repairs or modifications to Controller Unit repairs may be required during or after stated warranty periods. The work will include miscellaneous CU replacement parts and labor to include but not limited cable adaptors for cabinets that have EPIC signal controllers. The Contractor is responsible for providing the pricing of CU repairs and list applicable parts and service items on Schedule B.

2.5. Training

A. Requirements

Training is to be interactive (classroom setting) and will be scheduled for a group of 10 to 20 or 20 to 40 employees, pending training category.

Trainer will have technical knowledge on controller interaction with BOTH software AND field interactions.

Contractor will review training content with Program Manager prior to scheduled session(s).

1. Training material is to include at minimum:
 - one (1) signal controller per two (2) users;
 - supplemental training manuals and or handouts.
2. Training content will include, but not limited to the following:
 - Operator controls/ Hands-on-operation of unit

- Signal Controller Programming
- Detection Implementation with signal controller
- Maintenance
- Startup and shutdown.
- One (1) Safety Training Video

3. Training location

Contractor will be contacted to scheduled training after product has been delivered and prior to installation.

Pending training category, location will be either at a MDOT facility or at an agreed upon Contractor location.

B. Category

As requested by MDOT, Contractor will provide the following types of training

1. Initial (Kick-Off) Training

During the initial year of the Contract, the Contractor will provide one 8-hour day of CU training every month with up to 20 users.

*Initial training should be scheduled at the MDOT Signals Unit Shop in Lansing Michigan.
(*location is subject to change)

2. Annual Training Requirements

- a. Basic Training Course – Two, 8-hour day of basic signal control programming training for up to 40 users
- b. Advanced Training Course – Three, 8-hour days of advanced signal controller programming training for up to 40 users

C. Training Pricing

Purchased from this MA will include federal funding. Any cost for training will be paid for separately.

Contractor will provide cost breakdown-mark up for training. Stated cost should reflect the maximum cost to provide either initial training or annual training as stated in item 2.5 B.

2.6. Reporting

As requested by MDOT, Contractor will have the ability to provide contract activities for specific MDOT divisions and or Regions.

2.7. Correction of Non-Compliance

MDOT is committed to providing necessary guidance to the Contractor in solving problems that arise and expect the Contractor to continuously communicate with the various (statewide) requesting MDOT department while providing stated deliverables.

At any time during contact term or renewal options, MDOT will use the following actions to document noncompliance to the following service levels:

- Technical Support - Time Frame
- Delivery – Time Frame
- Training –inability to provide requested sessions at requested times, incomplete handouts and or requested equipment.

1. Non-Emergency

First and Second Occurrence

Contractor will be notified either verbally or written

- a. If delivery delay, Contractor to provide required equipment or service at next available date and time.
- b. If technical support delay Contractor to provide response within 8 hours.
- c. If training is delayed or does not meet section 2.5 training activities Contractor to provide response within 8 hours.

MDOT Program Manager or designee should:

- (i) Verbally notify the Contractor of the situation or issue; and
- (ii) Provide a description of the non-compliance

Third Occurrence or more

Contractor will be notified either verbally or written

- a. If delivery delay, Contractor to provide required equipment or service at next available date and time.
- b. If technical support delay, Contractor to provide response within 8 hours
- c. If training is delayed or does not section 2.5, training activities Contractor to provide response within 8 hours.

Third occurrence or more, MDOT Program Manager or designee should:

- (i) Schedule an in-person meeting with the Contractor and provide, in writing:
 - 1. A description of the specific problem
 - 2. A description of the actions the Contractor is expected to take to resolve the problem
 - 3. A date by which the Contractor is expected to resolve the problem
 - 4. Request, in writing, the Contractor's root cause and corrective action plan.
- (ii) Program Manager or designee should file a written record of the meeting, expectations and resolution for inclusion in the MA file and provide a copy for the Contractor.
- (iii) Enter a Vendor Performance evaluation/report in SIGMA and copy the MDOT Purchasing Unit.

Consistent documented non-compliant deliverables from any MDOT division or office may result in contract cancellation.

2.8. Meetings

At the request of MDOT, the Contractor will be available at no additional cost to attend the following:

- A. Kick Off Meeting
Prior to commencement of work the Contractor is required to meet with designated MDOT personnel.
Primary discussion to include, scheduling Initial training, product availability, various delivery locations.

Meeting will be scheduled at a MDOT facility, via teleconference or at an agreed upon Michigan facility.

B. Progress Meeting

When requested quantities exceed 1, Contractor may be required to meet with designated MDOT personnel.

Primary discussion to include timeline/ lead times and coordination of requested equipment or service to include training coordination.

MDOT may request other meetings, as it deems appropriate.

3. Staffing

3.1. Contractor Representative (Technical Support Contact)

MDOT Contract Service Division, Purchasing Unit, must be notified of removal of stated technical support personnel within 24 hours, for any reason (to include resignation, re-assignment, medical leave or termination.)

3.1 - Contract Representative	First Point of Contact
Employee Name:	Kiel McIntosh
Employee Title:	Sales Engineer
Employee Office phone:	248.477.8700
Employee Cell phone:	248.955.8859
Employee email:	kielmcintosh@carriergable.com

3.4. Organizational Chart

Contractor to provide an overall organizational chart that details staff members, by name and title, and subcontractors.

3.5. Disclosure of Subcontractors

If the Contractor intends to utilize subcontractors, the Contractor must disclose the following:

The legal business name; address; telephone number; a description of subcontractor’s organization and the services it will provide; and information concerning subcontractor’s ability to provide the Contract Activities.

The relationship of the subcontractor to the Contractor.

Whether the Contractor has a previous working experience with the subcontractor. If yes, provide the details of that previous relationship.

A complete description of the Contract Activities that will be performed or provided by the subcontractor.

3.8. Security

The contract activities require interaction with State personnel at State facilities and/or designated State trunk lines or highways.

The Contractor may be subject the following security procedures: Background checks may be requested per attached Standard Contract Terms

Upon request by the State, the Contractor shall provide the results of all security background checks of the employees that will perform the listed contract activities, including name, date of birth and social security number.

Contractor personnel will wear company issued uniforms and display Contractor issued ID badges.

4. Pricing

4.1. Price Term

Pricing is firm for a 365 day period ("Pricing Period"). The first pricing period begins on the Effective Date. Adjustments may be requested, in writing, by either party and will take effect no earlier than the next Pricing Period.

4.2. Price Definition

Total Price submitted on Schedule B will include costs that the Contractor may charge the State to deliver a ready to install CU as ordered and provide technical support.

Price will include the following fees:

Set-up charges, firmware installation*, technical support, palletizing, packing, marking, shipping and delivery. *installed firmware will regularly be at the approved current version.

Training is not included and will be paid separately – ref. section 2.5

Repair work is not included. Contractor will submit list of repair parts and service items during the solicitation process

Reference Schedule B

4.3. Price Changes

Adjustments will be based on changes in actual Contractor costs. Any request must be supported by written evidence documenting the change in costs. The State may consider sources, such as the Consumer Price Index; Producer Price Index; other pricing indices as needed; economic and industry data; manufacturer or supplier letters noting the increase in pricing; and any other data the State deems relevant.

Following the presentation of supporting documentation, both parties will have 30 days to review the information and prepare a written response. If the review reveals no need for modifications, pricing will remain unchanged unless mutually agreed to by the parties. If the review reveals that changes are needed, both parties will negotiate such changes, for no longer than 30 days, unless extended by mutual agreement.

The Contractor remains responsible for Contract Activities at the current price for all orders received before the mutual execution of a Change Notice indicating the start date of the new Pricing Period.

4.4. Incentives

MDOT may order controllers in quantities greater than one. MDOT is requesting discount pricing based on quantities as indicated on Schedule B.

5. Ordering

5.1. Authorizing Document

This MA will be statewide usage and Contractor will be responsible to ensure ALL requests for equipment or service is authorized.

The appropriate authorizing document to provide requested equipment or service will be a delivery order (D.O), issued by authorized MDOT personnel.

5.2 Order Verification

The Contractor must have internal controls, to verify abnormal orders and to ensure that only authorized MDOT individuals place orders.

6. Acceptance

6.1. Acceptance, Inspection and Testing

As applicable, the State will use the following criteria to determine acceptance of the Contract Activities:

- A. Traffic Signal parts and equipment will be inspected for compliance with the current Michigan Department of

Transportation published Standard Specifications for Construction manual; and in accordance with the Special Provision – Attachment #12SG820(A145). Variances from special provisions will not be accepted.

- B. Provide adapter cables as requested for use with existing cabinets
Contractor will include pricing and part number for adapter cables on Schedule B.
- C. MDOT will not process partial payments. Payment will not be processed until the MIBs, CU, and other incidental items have been received and accepted by MDOT.

6.2. Final Acceptance

As stated within item 20 Terms of Payment, within attached Standard Terms

7. Invoice and Payment

7.1. Invoice Requirements

All invoices submitted to the State must include: (a) date; (b) Master Agreement Number; (c) deliver order number (d) quantity; (e) description of the Contract Activities; and

CU Invoices will include the following:

(f) Invoice price will equal unit price or incentive pricing as listed on Schedule B. (g) EMERGENCY SHIPMENT pricing will be stated on invoice as a separate line item; AND

Training Invoices will include the following:

(h) Training –MUST be billed separately from CU.

Training invoice will identify type of training and will equal pricing as listed on Schedule B

Per stated Terms of Payment with the attached Standard Terms, the invoice will note the following:

- 1. State of Michigan sales tax is not an applicable charge
- 2. Payment terms are net 45 days

Prior to issue of a MA, awarded Contractor will need to submit a sample invoice.

7.2. Payment Methods

Per statue MCL 18.1283, the State will make payment for Contract Activities via Electronic Funds Transfer (EFT).

Vendor registration for EFT payments on: www.michigan.gov/SIGMAVSS

7.3. Procedure

There will be no separate delivery charge. Delivery charges will be included in total price of equipment or parts as listed in Schedule B.

8. Liquidated Damages

Late or improper completion of the Contract Activities will cause loss and damage to the State and it would be impracticable and extremely difficult to fix the actual damage sustained by the State. Therefore, if there is late or improper completion of the Contract Activities the State is entitled to collect liquidated damages in the amount of \$1,000 and an additional \$100 per day for each day Contractor fails to remedy the late or improper completion of the Work.

Removal (to include resignation, re-assignment, medical leave, or termination) of listed personnel providing Technical Support and Repairs OR the Contractor Representative will interfere with the timely and proper completion of the contract activities, to the loss and damage of the State, and it would be impracticable and extremely difficult to fix the actual damage sustained by the State. Therefore, the State may assess liquidated damages against Contractor as specified below.

The State is entitled to collect \$1,000 per individual per day for the removal of any listed personnel to provide Technical Support and Repairs without prior notice to the State.

The State is entitled to collect \$1,000 per individual per day for the Contractor providing untrained personnel to provide Technical Support and Repairs.

9. Additional Requirements

9.1. Environmental and Energy Efficient Products

The Contractor must identify any energy efficient, bio-based, or otherwise environmentally friendly products provided under this contract.

9.2. Hazardous Chemical Identification

In accordance with the federal Emergency Planning and Community Right-to-Know Act, 42 USC 11001, *et seq.*, as amended, the Contractor must provide a Material Safety Data Sheet listing any hazardous chemicals, as defined in 40 CFR §370.2, to be delivered. Each hazardous chemical must be properly identified, including any applicable identification number, such as a National Stock Number or Special Item Number.

The Contractor must identify any hazardous chemicals that will be provided under any resulting contract.

9.3. Mercury Content

Pursuant to MCL 18.1261d, mercury-free products must be procured when possible. The Contractor must explain if it intends to provide products containing mercury, the amount or concentration of mercury, and whether cost competitive alternatives exist. If a cost competitive alternative does exist, the Contractor must provide justification as to why the particular product is essential. All products containing mercury must be labeled as containing mercury.

9.4. Brominated Flame Retardants

The State prefers to purchase products that do not contain brominated flame retardants (BFRs) whenever possible. The Contractor must disclose whether the products contain BFRs.

STATE OF MICHIGAN

Contract No. 20000000552
 Traffic Controllers
 (CSCS Interface and Statewide Maintenance)

SCHEDULE B PRICING MATRIX

ITEM DESCRIPTION	Contractor Part Number	UNIT	QTY	% off MSRP or Discount	PRICE PER UNIT	TOTAL COST
Controller Unit (CU) - Controller, NEMA, ATC, Furn Including technical support and latest approved firmware, installed Product Name: Econolite Cobalt NEMA ATC Controller LEAD TIME FOR DELIVERY DAYS	105-2312	EA	1	0.0%	\$ 2,620.00	\$ 2,620.00
D Connector Cable	105-2503	EA	1	0.0%	\$ 135.00	\$ 135.00
EPIC to NEMA Cable Adaptor		EA	1	0.0%	\$ 615.00	\$ 615.00
Incentives - reference Schedule A, item 4.4	105-2312	EA	25-50	0.0%	\$ 2,620.00	\$ 131,000.00
		EA	51-100	2.5%	\$ 2,541.00	\$ 254,100.00
		EA	101-200	5.0%	\$ 2,447.00	\$ 489,400.00
		EA	201 or more	7.0%	\$ 2,373.00	>\$489,400.00
CU Replacement Parts -	NA	EA	NA	NA	NA	NA
Controller Unit	R105-2312	EA	any	0.0%	\$ 667.00	\$ 667.00/unit
CU Maintenance Items	NA	EA	NA	NA	NA	NA
Initial (kick-off) training - 12 sessions		LS	1		\$ 0.00	\$ 0.00
Annual Training Requirement - Basic - (2) 8-hour sessions		EA	1		\$ 0.00	\$ 0.00
Annual Training Requirement - Advanced - (3) 8-hour sessions		EA	1		\$ 0.00	\$ 0.00
TOTAL						\$ 0.00

Actual work performed will be determined by the Program Manager or his/her designee.

The State is not obligated to purchase any listed quantity.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION TYPE
ADVANCED TRANSPORTATION CONTROLLER, FURNISH**

OFS:NJB

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APPR:EMS:DBP:11-01-19

a. Description. This work consists of furnishing a traffic signal controller, *National Electrical Manufacturers' Association (NEMA)*, Advanced Transportation Controller (ATC).

This work includes:

- 1 Furnishing and delivering the traffic signal controller unit (CU) to the maintaining agency.

- 2 Providing management information bases (MIBs) required for a third-party software to integrate all controller functionality.

b. Material. Provide materials meeting the requirements in sections 918 and 921 of the Standard Specifications for Construction and this special provision.

1. Controller Unit (CU).

A. Provide a CU hardware and firmware from the following list. Confirm the appropriate firmware version with the Engineer prior to ordering. No additional payment will be made based on the firmware version provided. Provide CU with functionality that meets or exceeds operational characteristics as described in *NEMA TS-2-2016*, including *National Transportation Communications for ITS Protocol (NTCIP)*.

(1) Siemens m60 NEMA ATC loaded with Siemen's SEPAC controller firmware over Linux using *NTCIP* communications. The firmware version will be 5.1 or the latest version as approved by the Engineer.

(2) Econolite Cobalt NEMA ATC loaded with Econolite's EOS controller firmware over *NTCIP* communications. The firmware version will be 03.01.28 or the latest version as approved by the Engineer.

(3) Approved equal. The approval of submitted alternate models may take several months. Requests to use an alternate model will not be justification for project delays.

B. Provide and make available to MDOT the (MIBs, in industry standard electronic and portable document format (PDF) formats, required for a third-party signal control software to provide all controller functionality via remote software application. Provide updated MIBs with each controller firmware update through the entire contract period and 1-year software warranty period. MDOT reserves the right to make the MIBs available to third-party software developers contracted with the State of Michigan for custom integration of controller features.

C. Provide a CU with Datakey functionality for transferring timing programs. Provide two Datakeys each with 8 Megabyte (MB) minimum storage capacity or as required for the firmware specified.

D. If a CU is provided that does not match the cabling in the existing cabinet, provide adapter cables as shown on the plans to allow the CU to operate in the cabinet without additional wiring changes to the cabinet.

E. Interface Standards. Ensure the CU provides an input-output interface that meets the following requirements.

(1) Ethernet Port.

(a) Provide, at a minimum, two built-in registered jack (RJ)-45 connectors on the controller front panel for 100Base-T Ethernet.

(b) Ensure that the Ethernet ports are capable of operating on separate communications networks, that the internet protocol (IP) address for each Ethernet port is set to the manufacturer default, that the two ports do not have the same IP address, and that the IP address for each port is independently configurable by MDOT or approved designee.

(2) *NEMA* Port 1 synchronous data link (SDLC). Provide a CU with a 15-pin connector to communicate to hardware devices within the cabinet.

(3) *NEMA* Port 2.

(a) Provide a CU with a 25-pin connector compliant with the *Electronics Industry Association (EIA)-232* communications standard that serves two functions.

(b) Ensure Port 2 provides hardwired data communications to devices nearby such as laptop personal computers (PCs), personal digital assistants (PDA's), phone modems, or printers. Ensure communications baud rates are user selectable between 1,200 and 38,400 bits per second (bps).

(c) Ensure Port 2 also provides signals that implement the C50 function of the joint *NEMA/AASHTO/ITE Specification* of the ATC and is present on the secondary transmit and receive pins described in the *EIA-232* specification for a 25-pin connection.

(4) *NEMA* Port 3.

(a) Provide a CU with an internal *NEMA* Port 3 communications port. This port must provide systems communications to on-street masters or central office computers. Ensure this port is addressable with user selectable baud rates between 1,200 and 38,400bps.

(b) Provide a CU with a module that contains an additional 9-Pin recommended standard (RS)-232 port and a 25-Pin RS-232 port.

(c) Ensure the CU provides a Datakey receptacle to program and read serial Datakeys.

(d) Provide a built in Universal Serial Bus (USB) 2.0 port that will enable data transfer used by the software application to another CU or local or central system database.

(e) Provide an optional Port 3 fiber optic modem as requested by the Engineer.

(5) D Connector. Ensure there is a D connector on the front of the unit to provide for additional input/output functions. Ensure these functions are manufacturer specified. Ensure a number of the input and output definitions are programmable in the CU.

(6) Signal Phasing and Timing (SPaT). Provide a CU that is SPaT data compliant with the latest *NEMA Standards Publication TS 2-2016 - Traffic Controller Assemblies with NTCIP Requirements Version 03.07*, *NTCIP Standards 1201, 1202, 1211, and 1103*, *Society of Automotive Engineer (SAE) J2735_201603*, and with the latest FHWA connected vehicle programs. Provide and make available to MDOT the MIBs for traffic signal controller broadcast messages (TSCBM) that are compatible with *SAE J2735 201603* and with the latest FHWA connected vehicle programs. Ensure this data stream is accessible via any of the IP addressable Ethernet ports and support at least two destination IP addresses.

(7) Provide CU capable of outputting signal driver status on the SDLC communications bus without communication to the Malfunction Management Unit (MMU).

2. Packing and Marking. Ensure each CU is packed separately in such a manner that there will be no injury or defacement to the CU during transportation to the point of destination, unless otherwise specified in the contract. Ensure each carton is legibly marked with the CU description, purchase order number, and vendor's name.

3. **Warranty.** Provide a minimum manufacturer's or vendor's warranty of 1 year for CU firmware and 2 years for CU hardware beginning with the date delivered to maintaining agency, transferable to MDOT. Furnish the warranty and other applicable documents from the manufacturer or vendor, and a copy of the invoice showing the date of shipment, to the Engineer prior to final written acceptance.

c. Construction. Complete this work in accordance with sections 819 and 820 of the Standard Specifications for Construction, as shown on the plans and as directed by the Engineer.

1. **MIBs.** Provide MIBs for approved controller firmware to MDOT in industry standard electronic and portable document format (PDF) formats unless otherwise indicated by the Engineer. If MIBs for proposed controller and hardware combination have been previously approved and received by MDOT, submit documentation of previous submittal for approval by the Engineer.

2. Furnish and deliver the controller to the maintaining agency for controller timing setup.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Controller, NEMA, ATC, Furn.....	Each

Controller, NEMA, ATC, Furn includes:

1. Furnishing and delivering the controller to the maintaining agency for controller timing setup.

2. Providing MIBs required for a third-party software to integrate all controller functionality.

3. Providing to MDOT all CU firmware and MIB updates for the 1-year firmware warranty period.

The Engineer will not process partial payments. Payment will not be processed until the MIBs, CU, and other incidental items have been received and accepted by MDOT.