CONTRACT DOCUMENTS

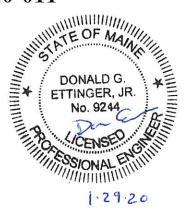
FOR

TURNER STREET SIDEWALK PROJECT AUBURN, MAINE



BID NUMBER: 2020-011

February 3, 2020



Tony Beaulieu P.E., City Engineer

Derek Boulanger, Facilities Manager/Purchasing Agent
Kris Bennett, Project Engineer



City of Auburn, Maine

Finance Department www.auburnmaine.gov | 60 Court Street Auburn, Maine 04210 207.333.6601

February 3, 2020

Dear Bidder:

The City of Auburn is accepting written proposals for the Auburn Public Services
Department's <u>Turner Street Sidewalk Project</u>. The City reserves the right to accept or reject any or all proposals in whole or in part and to waive any informality the City may determine necessary. The City also reserves to itself the exclusive right to accept any proposal when it is deemed by the City to be in its best interest. The City of Auburn is governed by Title 1 M.R.S.A. § 401-410, otherwise known as the Freedom of Information Act, which considers bid specifications as public documents. In awarding any proposal, the City may consider, but not be limited to, any of the following factors: Bidder qualifications, price, experience, financial standing with the City, warranties, references, bonding, delivery date, and service of Bidder. Vendors/Contractors shall be current on all amounts due to the City of Auburn prior to the City entering into any contract agreement. All proposals must include FOB to Auburn, Maine unless otherwise specified.

Proposals will not receive consideration unless submitted in accordance with the following instructions to bidders. Please mark sealed envelopes plainly: <u>"Turner Street Sidewalk Project – Bid Number 2020-011.</u>

Bid packages will be available beginning on Monday, February 3, 2020. Documents can be obtained from the City of Auburn's website: www.auburnmaine.gov/business/bid-notices. Questions regarding this Request for Bids should be directed to Tony Beaulieu P.E, City Engineer, at (207) 333-6601, ext. 1140. A mandatory pre-bid will be held on Tuesday, February 11, 2020, at 2:00pm in the Community Room (206), Auburn City Hall.

Please submit your proposal to the City of Auburn by 2:00 p.m. <u>Thursday, February 20, 2020.</u> Proposals must be delivered to <u>Derek Boulanger, Facilities Manager/Purchasing Agent, 60 Court Street, Auburn, Maine 04210 on or before the date and time appointed. No proposals will be accepted after the time and date listed above. Proposals will be opened at 2:00 p.m. on that date in Council Chambers, Auburn City Hall.</u>

Sincerely,

Derek Boulanger Facilities Manager/Purchasing Agent

CONDITIONS AND INSTRUCTIONS TO BIDDERS

- 1. Bidders shall use the enclosed bid form for quotations. Whenever, in bid forms, an article is defined by using a trade name or catalog number, the term "or approved equal", if not inserted, shall be implied.
- 2. Submit a separate unit price for each item unless otherwise specified in the bid request. Award will be made on a basis of each item, or as a group, whichever is in the best interest of the City. Prices stated are to be "delivered to destination".
- 3. Bid proposals must be completed in full, in ink and must be signed by firm official. Bid proposal **must be notarized** prior to bid being sealed and will be disqualified if not notarized. Bids may be withdrawn prior to the time set for the official opening.
- 4. Bids will be opened publicly. Bidders or representatives may be present at bid opening.
- 5. Awards will be made to the lowest responsible bidder, considering the quality of the materials, date of delivery, cost which meets specification and is in the best interest to the City of Auburn.
- 6. All transportation charges, including expense for freight, transfer express, mail, etc. shall be prepaid and be at the expense of the vendor unless otherwise specified in the bid.
- 7. The terms and cash discounts shall be specified. Time, in connection with discount offered, will be computed from date of delivery at destination after final inspection and acceptance or from date of correct invoice, whichever is later.
- 8. The City is exempt from payment of Federal Excise Taxes on the articles not for resale, Federal Transportation Tax on all shipments and Maine Sales Tax and Use Taxes. Please quote less these taxes. Upon application, exemption certificate will be furnished with the Purchase Order when required.
- 9. No contract may be assigned without the written consent of the Purchasing Director or his designate. The contract shall not be considered valid until a purchase order has been issued to the successful bidder.
- 10. Please state "Turner Street Sidewalk Project Bid # 2020-011", on submitted, sealed envelope.
- 11. The City of Auburn reserves the right to waive any formality and technicality in bids whichever is deemed best for the interest of the City of Auburn.
- 12. All work must be completed from 7:00AM to 7:00PM. The completion date for this project is October 2, 2020. Liquidated damages of \$500/calendar day will be assessed on uncompleted work.
- 13. Unitil & Auburn Water & Sewer District will be responsible for lowering and raising their respective shut-offs.

GENERAL CONDITIONS

1. Equal Employment Opportunity

The City of Auburn is an Equal Opportunity Employer and shall not discriminate against an applicant for employment, and employee or a citizen because of race, color, sex, marital status, physical and/or mental handicap, religion, age, ancestry or natural origin, unless based upon a bona-fide occupation qualification. Vendors and contractor or their agents doing business with the City shall not violate the above clause or the Civil Rights Acts of 1964. Violations by vendors shall be reviewed on a case-by-case basis and may mean an automatic breach of contract or service to the City of Auburn.

2. Save Harmless

The Bidder agrees to protect and save harmless the owner from all costs, expenses or damages that may arise out of alleged infringement of patents of materials used.

3. Subcontracting

The Bidder shall not subcontract any part of the work or materials or assign any monies due it without first obtaining the written consent of the municipality. Neither party shall assign or transfer its interest in the contract without the written consent of the other party.

4. Warranty

The Bidder warrants that all work will be of good quality and free from faults and defects, and in conformance with the specifications. All work not so conforming to these standards may be considered defective. The Bidder agrees to be responsible for the acts and omissions of all of its employees and all subcontractors, their agents and employees, and all other persons performing any of the work under a contract with the Bidder.

5. Bonds, Retainage and Payments

A bid bond shall be submitted with appropriate bid forms in the amount of 5% of the total contract value. Also, payment and performance bonds will be required from the contractor who is awarded this contract. Retainage in the amount of 10% will be held from each progress payment and shall be released at the discretion of the Project Engineer. Payments shall be made by the City to the Contractor 30 days after receipt of the request for payment.

BID PROPOSAL FORM

Due:

Thursday, February 20, 2020

	City of Auburn Derek Boulanger, Facilities M 60 Court Street Auburn, ME 04210	Ianager/Purchasing Agent
due dat individ corpora request the firm	te. The undersigned submits the ual, or firm or agency. The unation, partnership or individual as, or conditions written herein	ness guarantees this price for Thirty days (30) from the bid his proposal without collusion with any other person, idersigned ensures the authority to act on behalf of the they represent; and has read and agreed to all of the terms, by the City of Auburn, Maine. By signing this bid form, hat its bid meets the minimum specifications and standards
Signatu	ire	_Name (print)
Title		Company
Addres	s	
Teleph	one No	Fax No
Email A	Address:	
	E OF MAINE , SS.	Date:
		ed the foregoing instrument to be his/her free act and deed d deed of said company.
		Notary Public
A 11	dono A dono endo do edo	Print Name Commission Expires
# # #	dum Acknowledged: Date Date Date	

<u>City of Auburn</u> <u>Turner Street Sidewalk Project - Bid Form</u>

ITEM				UNIT	TOTAL
NO.	DESCRIPTION	UNIT	_	COST	COST
203.20	Common Excavation	CY	350		
304.10	Aggregate Subbase Course – Gravel, Type D	CY	280		
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	T	8		
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Sidewalks, Drives, Islands, & Incidentals)	Т	80		
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base Course)	Т	22		
603.159	12 Inch Culvert Pipe Option III	LF	13		
603.169	15 Inch Culvert Pipe Option III	LF	8		
604.072	Catch Basin Type A1-C	EA	1		
604.092	Catch Basin Type B1-C	EA	1		
604.16	Altering Catch Basin to Manhole	EA	1		
606.353	Reflectorized Flexible Guardrail Marker	EA	2		
606.23	Guardrail Type 3C – Single Rail	LF	300		
606.232	Guardrail Type 3C – Over 15 Ft Radius	LF	75		
606.81	Tangent Guardrail Terminal – Energy Absorbing	EA	1		
607.163	Chain Link Fence – 4 Foot – PVC Coated	LF	50		
608.26	Curb Ramp Detectable Warning Field	SF	152		
609.11	Vertical Curb Type 1	LF	225		
609.12	Vertical Curb Type 1 - Circular	LF	8		
609.2341	Terminal Curb Type 1 - 4 Foot - Circular	EA	3		
609.238	Terminal Curb Type 1 - 8 Foot	EA	3		
609.2381	Terminal Curb Type 1 - 8 Foot - Circular	EA	2		
609.31	Curb Type 3	LF	200		
609.50	Concrete Base for Curbing	LF	300		
610.08	Plain Riprap	CY	2		
615.08	Loam & Seed	SY	630		
620.58	Erosion Control Geotextile	SY	3		
626.32	24 Inch Diameter Foundation	EA	2		
626.33	30 Inch Diameter Foundation	EA	3		
627.733	4" White or Yellow Painted Pavement Marking Line	LF	1600		

ITEM NO.	DESCRIPTION	UNIT	QNTY	UNIT COST	TOTAL COST
627.75	White or Yellow Pavement & Curb Marking	SF	840		
629.05	Hand Labor, Straight Time	HR	8		
631.12	All Purpose Excavator (Including Operator)	HR	4		
631.172	Truck – Large (Including Operator)	HR	4		
631.32	Culvert Cleaner (Including Operators)	HR	4		
634.208	Remove and Reset Light Pole	EA	3		
643.60	Rectangular Rapid Flashing Beacon	LS	1		
645.292	Regulatory, Warning, Confirmation, and Route Marker Assembly Signs Type II	SF	25		
652.39	Work Zone Traffic Control	LS	1		
659.10	Mobilization	LS	1		
_	TOTAL AMOUNT OF BID WRITTEN AND IN NUMBERS BASED ON ESTIMATE OF QUANTITIES				
	(Written)				

Company Name:		
Signed by:		
Title:		
Print Name:		
Address:		
	Fax #	
Date:		

BID BOND

KNOW ALL BY	THESE PRESENTS, that we, the undersigned,as
Principal, and	as Surety, are hereby held and firmly
bound unto	as OWNER in the penal sum
of	for payment of which, well and truly to be
made, we hereby	jointly and severally bind ourselves, successors and assigns.
Signed, this	day of, 2020.
The Condition of	the above obligation is such that whereas the principal has submitted toa certain BID,
attached hereto an	d hereby made a part hereof to enter into a contract in writing, for the
NOW, THEREFOR	P.E.,
(a) If said BID	shall be rejected, or
Contract attached his faithful perform	shall be accepted and the Principal shall execute and deliver a contract in the Form of ereto (properly completed in accordance with said BID) and shall furnish a BOND for ance of said contract, and for the payment of all persons performing labor or s in connection therewith, and shall in all other respects perform the agreement created f said BID,
understood and agre	shall be void, otherwise the same shall remain in force and effect; it being expressly eed that the liability of the Surety for all and all claims hereunder shall, in no event, nount of this obligation as herein stated.
BOND shall be in n	ne received, hereby stipulates and agrees that the obligations of said Surety and its no way impaired or affected by any extension of time within which the OWNER may and said Surety does hereby waive notice of any such extension.
and seals, and such	EREOF, the Principal and the Surety have hereunto set their hands of them as are corporations have caused their corporate seals to be hese presents to be signed by their proper officers, the day and year(L.S)
P	rincipal
Surety	
	rety companies executing BONDS must appear on the Treasury Department's most r 570 as amended) and be authorized to transact business in the state where the project

SAMPLE AGREEMENT

THIS AGREEMENT is made this ## day of Month Year, by and between the CITY OF AUBURN, a municipal corporation existing under the laws of the State of Maine and located in the County of Androscoggin, State of Maine (hereinafter "CITY"), Company Name, Address, EIN, (hereinafter "CONTRACTOR"),

WITNESSETH:

In consideration of the mutual covenants and conditions contained herein, the CITY and the CONTRACTOR agree as follows:

SPECIFICATIONS:

1. The CONTRACTOR shall furnish all of the material and perform all of the work shown on the drawings and described in the specifications entitled: Bid Number: XXXX-XXX Bid Title, which are attached hereto and made a part hereof, and the CONTRACTOR covenants that it shall do everything required by this Agreement, the Special Provisions of the Agreement, the Invitation to Bid and the Specifications in return for payment as provided herein.

COMPLETION DATE:

2. The work to be performed under this Agreement shall be commenced by Month day, year and fully completed on or before Month day, year.

CONTRACT PRICE:

3. The CITY shall pay the CONTRACTOR for the performance of the Agreement the sum of \$XXX

PERFORMANCE BOND:

4. If required by the City, the CONTRACTOR shall furnish to the CITY at the time of the
execution of this Agreement a performance bond and a labor and material payment bond each in
the amount of \$Dollar amount or N/A (whichever applies) executed by a surety company
satisfactory to the CITY, guaranteeing the performance and payment by the CONTRACTOR.
☐ Yes, Required (Initials:) ☐ No, Waived (Initials)

GUARANTEE:

5.The CONTRACTOR shall guarantee his work against any defects in workmanship and materials for a period of one year from the date of the CITY's written acceptance of the project.

PERMITS AND LICENSES:

6. Permits and licenses necessary for the prosecution of the work shall be secured and paid by the CONTRACTOR.

CITY'S RIGHT TO TERMINATE CONTRACT:

7. If the CONTRACTOR should be adjudged a bankrupt, or if it should make a general assignment for the benefit of creditors, or if a receiver should be appointed on account of its insolvency, or if it should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if it should fail to make prompt payment to subcontractors or for material or labor, or persistently disregard laws, and ordinances, or otherwise be guilty of a substantial violation of any provision of the Agreement, then the CITY when sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the CONTRACTOR, and his surety, seven (7) days written notice, terminate the employment of the CONTRACTOR and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method it may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Agreement price shall exceed the expense of the finishing the work, including compensation for additional architectural, managerial and administrative services, such excess shall be paid to the CONTRACTOR. If such expense shall exceed such unpaid balance, the CONTRACTOR shall pay the difference to the CITY.

CONTRACTOR'S LIABILITY INSURANCE:

8. The CONTRACTOR shall not commence work under this Agreement until he has obtained all insurance required under this paragraph and such insurance has been approved by the CITY, nor shall the CONTRACTOR allow any subcontractor to commence work on his subcontract until all similar insurance required of subcontractor has been so obtained and approved. It is a requirement that the CITY be named as an Additional Insured on the General Liability and Automobile Liability policies.

Commercial General Liability to include products and completed operations, and blanket contractual. The limits of liability shall be as follows:

Bodily Injury and Property Damage	\$1,000,000
Personal Injury and Advertising Injury	\$1,000,000
Per Project Aggregate	\$1,000,000
General Aggregate	\$2,000,000
Products and Completed Operations Aggregate	\$2,000,000
Medical Payments	\$10,000

(b) Business Automobile Liability

The CONTRACTOR shall maintain and cause all sub-contractors and lower tier contractors to maintain business automobile liability insurance covering all owned non-owned, leased, rented or hired automobiles (symbol 1). The limits of liability shall be as follows:

Bodily Injury and Property Damage

\$1,000,000

Automobile physical damage coverage shall be at the option of the CONTRACTOR, all sub-contractors and lower tier contractors. The CITY shall not be liable for physical loss or damage to any owned, non-owned, leased, rented or hired automobile.

Workers' Compensation Insurance

The CONTRACTOR shall maintain and cause all sub-contractors and lower tier contractor's to maintain Workers' Compensation and Employers Liability in accordance with the laws and regulations of the State of Maine. The limits of liability provided shall be as follows:

Coverage A: Statutory

Coverage B: \$100,000/\$500,000/\$100,000

Professional Liability

If the CONTRACTOR is an Architect, Engineer or Surveyor, they shall maintain a policy of insurance to pay on their behalf whatever amounts that may become legally required to pay on account of an error, omission or negligent act.

Limits of Liability shall be as follows:

\$1,000,000 per occurrence and in the aggregate site specific.

It is a requirement that this policy be maintained for a period of three (3) years following completion of the project.

Certificates of Insurance of the types and in the amounts required shall be delivered to the CITY prior to the commencement of any work by the CONTRACTOR, subcontractor or lower tier contractor or any person or entity working at the direction or under control of the CONTRACTOR. The CONTRACTOR shall assume the obligation and responsibility to confirm insurance coverage for all sub-contractors or lower tier contractors who will participate in the project.

The Certificate of Insurance and the policies of insurance shall include a sixty (60) day notice to the CITY of cancellation, non-renewal or material change in coverage or form.

The CONTRACTOR and his surety shall indemnify and save harmless the CITY, his officers and employees from all suits, actions or claims of any character brought because of any injuries or damage received or sustained by any person, persons or property on account of the operations of the said CONTRACTOR; or on account of or in consequence of any neglect in safeguarding

the work; or through use of unacceptable materials in construction of the work; or because of any act or omission, neglect, or misconduct of said CONTRACTOR; or because of any claims or amounts recovered from any infringements or patent trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act" or of any other law, ordinance, order or decree; and so much of the money due to the said CONTRACTOR under and by virtue of his/her contract as shall be considered necessary by the CITY for such purpose, may be retained; or in case no money is due, his surety may be held until such suit or suits, action or actions, claim or claims, for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the CITY.

Waiver of Subrogation

Payment of any claim or suit including any expenses incurred in connection therewith by the CITY, or any insurance company on behalf of the CITY shall not constitute a waiver of subrogation against the CONTRACTOR, sub-contractors or any lower tier contractor in the event that such claim or suit was caused by or contributed to as a result of the negligent acts of the CONTRACTOR, any sub-contractors or lower tier contractors.

Construction Agreement

The CONTRACTOR shall and does hereby agree to indemnify, save harmless and defend the CITY from the payment of any sum or sums of money to any person whomsoever on account of claims or suits growing out of injuries to persons, including death, or damages to property, caused by the CONTRACTOR, his employees, agents or sub-contractors or in any way attributable to the performance and execution of the work herein contracted for, including (but without limiting the generality of the foregoing), all claims for service, labor performed, materials furnished, provisions and suppliers, injuries to persons or damage to property, liens, garnishments, attachments, claims, suits, costs, attorney's fees, costs of investigation and defense. It is the intention of this paragraph to hold the CONTRACTOR responsible for the payment of any and all claims, suits, or liens, of any nature character in any way attributable to or asserted against the CITY, or the CITY and the CONTRACTOR, which the City may be required to pay. In the event the liability of the CONTRACTOR shall arise by reason of the sole negligence of the CITY and/or the sole negligence of the CITY's agents, servants or employees, then and only then, the CONTRACTOR shall not be liable under the provisions of this paragraph.

DAMAGES:

9. The CONTRACTOR shall defend, indemnify and save harmless the CITY and all persons acting for or in behalf of it against all claims for injuries (including death), loss or damage, arising out of the performance out this contract.

LIENS:

10.Neither the final payment nor any part of the retained percentage shall become due until the CONTRACTOR, if required, shall deliver to the CITY a complete release of all liens arising out of the Agreement, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as it has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed; but the CONTRACTOR may, if any SUB-CONTRACTOR refuses to furnish a release or receipt in full, furnish a bond satisfactory to the CITY to indemnify it against any lien. If any lien remains unsatisfied after all payment are made, the CONTRACTOR shall refund to the CITY all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

ASSIGNMENT:

11. Neither party to the Agreement shall assign the Agreement or sublet it as a whole without the written consent of the other, nor shall the CONTRACTOR assign any moneys due or to become due to it hereunder, without the previous written consent of the CITY.

SUBCONTRACTS:

12. The CONTRACTOR shall not sublet any part of this Agreement without the written permission of the CITY. The CONTRACTOR agrees that it is as fully responsible to the CITY for the acts and omissions of its SUB-CONTRACTORS and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

USE OF PREMISES:

13. The CONTRACTOR shall confine its apparatus, the storage of materials and operations of its workers to limits indicated by law, ordinance and permits and shall not otherwise unreasonably encumber the premises with its materials. If any part of the project is completed and ready for use, the CITY may, by written and mutual consent, without prejudice to any of its rights or the rights of the CONTRACTOR, enter in and make use of such completed parts of the project. Such use or occupancy shall in no case be construed as an acceptance of any work or materials.

CLEANING UP:

14. The CONTRACTOR shall at all times keep the premises free from accumulation of waste materials or rubbish caused by its employees or work, and at the completion of the work it shall remove all its rubbish from and about the project, and all its tools, scaffolding and surplus materials and shall leave its work "broom-clean" or its equivalent, unless more exactly specified. In case of dispute, the CITY may remove the rubbish and charge the cost to the CONTRACTOR.

PAYMENTS:

15. Unless otherwise agreed to, the CITY shall make payments on account of the Agreement as follows:

Within 30 days, as invoices are submitted for work completed to the satisfaction of the CITY.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

BY:		BY:	
	Witness		Finance Director
BY:		BY:	
	Witness		Contractor

SCOPE OF WORK

The following scope of work is being proposed for the Turner Street Sidewalk Project for the City of Auburn. The scope of work is a brief overview of the expected extent of work included in this contract.

Turner Street Reconstruction Project

- The construction of approximately 0.32 miles of sidewalk, mostly along the south side of Turner Street starting at the back entrance to the Auburn Mall (near TD Bank) and extending northerly towards Gracelawn Road.
- Provide a mid-block crossing with rectangular flashing beacons to access the new development at Gracelawn Road.
- Provide new granite and bituminous curbing and curb tip downs.
- Replace existing guardrail in select locations.
- Remove and reset three existing light poles on south side of Turner Street.
- Install new fencing along a portion of the development at Gracelawn Road.
- Provide minor drainage improvements, including two (2) new catch basins.
- Loam, seed and mulch as directed.

SUPPLEMENTAL SPECIFICATIONS

The following Supplemental Specifications shall amend the "Maine, Department of Transportation Standard Specifications, **November 2014 Edition**" including any and all applicable revisions and special provisions. In case of conflicts, these Supplemental Specifications (1) shall take precedence and shall govern.

(1) Supplemental Specifications - modifications, additions and deletions to the existing Standard Specifications and new specifications for additional items not covered in the Standard Specifications.

F-1 Work Hours

No work shall proceed on this project prior to the hour of 7:00 AM or after 7:00 PM (prevailing time) on any working day unless the City has granted prior approval. The definition of work for this specification shall include starting or moving of equipment, machinery, or materials. Any day worked for four hours or more will be considered a full working day.

F-2 Notification of Residents

Residents shall be notified sufficiently in advance of any construction affecting the driveway and sidewalk to allow adequate time for their removal of personal vehicles. Locations of cuts for drive access affecting individual residents shall be brought to their attention.

F-3 Traffic Signs

All existing traffic signs, which are to be removed during construction, shall be dismounted and the posts removed and shall be stacked in an area approved by the Engineer. Contractor shall protect the signs from damage while in his possession and shall repair, at no additional cost to the City, any damages cause by his operations.

Stop signs are to be maintained at their original locations at all times during the progress work.

Prior to the start of any construction work, the Contractor shall prepare an acceptable inventory of all signs within the project limits which shall be used as a guide for replacement should signs be removed for construction purposes.

This work shall be considered as subsidiary obligation of the contract for which no special payment will be made.

F-4 Protection of Trees

The Contractor shall be responsible for the preservation of all trees on the project, which are not to be removed. Any trees damaged by the Contractor's operations shall be repaired as approved

by tree dressing or paint in accordance with the appropriate provisions of Section 201 of Standard Specifications.

F-5 Maintenance and Protection of Traffic

The Contractor shall be responsible for the maintenance and protection of all vehicular and pedestrian traffic at all times during construction and shall erect suitable warning signs, flashing barriers or temporary lighting devices of sufficient size and number to afford protection to the traveling public in accordance with the most recent edition of "Manual on Uniform Traffic Control Devices for Streets Highways" published by the Department of Transportation of the Federal Highway Administration.

The Contractor shall be held responsible for all damage to the work due to any failure of the warning devices to properly protect the work from the traffic, pedestrians or other causes. Traffic control shall be in accordance with the City of Auburn's Traffic Detail Policy effective April 1, 2006.

F-5A Materials

Materials shall meet the requirements specified for the various subsections of the Specifications. Equals shall be approved only prior to the bid opening.

F-6 Survey

The City of Auburn, Department of Public Services will establish, at their discretion, a benchmark location and one construction baseline. The Contractor shall be responsible for maintaining these controls during construction and providing all additional survey required, which shall be done by a competent Engineer or Surveyor.

F-7 Waste Areas

The disposal of waste and surplus material and slash from tree cutting shall be as outlined in Section 203.06 - Waste Areas.

F-8 Occupational Safety and Health

The Contractor is hereby advised that all work to be furnished to the City shall be performed with equipment, methods, and use of personnel in conformance with the pertinent Occupational Safety and Health Act requirements of the State of Maine and with the regulations for construction as specified by the Department of Labor and Occupational Safety and Health Administration (OSHA) as currently amended.

F-9 Pre-Construction Conference

A conference will be held at 60 Court Street, Auburn, Maine within ten (10) days after the awarding of the contract. At this time, the contractor will be required to submit a graphically

illustrated schedule and a plan showing project activity. City officials and representatives of the various utility companies involved in the project will be present at this meeting.

It is the purpose of this meeting to inform the various agencies of the proposed work schedule, and to give them the opportunity of discussing any difficulties and of offering suggestions to the Contractor concerning his proposed schedule in order that full cooperation may be reached.

F-10 Schedule of Operations

The above-mentioned schedule of operations in Section F-9 shall consist of a bar chart detailing the activities included in the contract. Although a bar chart is acceptable as a minimum, more complex and detailed schedules (i.e., flow charts, critical paths, etc.) are encouraged and will be accepted by the City. Updates will be required.

F-11 Traffic Officers

Traffic control shall be the responsibility of the Contractor and as directed. Traffic control officers will be employed by the Contractor. City of Auburn police officers may be required in certain traffic situations and will be paid for by the City of Auburn.

F-12 Limitation of Operations

The Contractor shall conduct the work at all times in such a manner and in such sequence as will assure the least interference with traffic. The Contractor shall not open up work to the prejudice or detriment of work already started. The Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional sections, if finishing such section is essential to public convenience.

Waste and surplus material shall not be stockpiled, but shall be disposed of in areas as designated in Section 203.06, Waste Areas, of the Standard Specifications.

F-13 Questions Regarding Plans and Documents

Questions from prospective bidders relative to this Contract shall be submitted no later than five days before bid opening and directed to:

Tony Beaulieu P.E. City Engineer Engineering Division Tel. 333-6601 ext. 1140

F-14 Record Drawings

The Contractor shall keep daily records of all changes in the work and records of underground infrastructure. Upon completion of the project, the Contractor shall deliver to the Engineer

copies of daily records. Final payment will not be made until Engineer receives copies of daily records.

F-15 Waste Material

All waste material shall be removed from the site and the area left clean upon completion of work. Any equipment or structures damaged by the Contractor shall be repaired or replaced at no additional cost to the City.

F-16 Quality Assurance

The Contractor shall be responsible at all times for maintaining top quality assurance during performance of his work.

F-17 Bids

No bids shall be withdrawn within a period of sixty -(60)- days after the opening of the bids.

F-18 Manhole Structures

The contractor shall be responsible for removing the frame and cover of sewer manholes during construction. Steel plates shall be used to cover the existing manhole opening. Offsets shall be installed to determine location. This work shall be considered incidental to the contract. The Auburn Water & Sewer District will be responsible to adjust sewer manhole frames and covers to grade, including water shutoffs.

F-19 Aggregate Base Courses

All gravel products shall meet Maine DOT specifications and shall also be produced from quarry rock.

F-20 Pipe Stubs

Any pipe stubs required to connect existing pipes to proposed catch basins shall be considered incidental to the item.

F- 21 Pipe Materials

All pipe supplied on this project shall be High Density Polyethylene (HDPE) pipe unless otherwise specified.

F- 22 Weekly Quantity Reports

The Contractor shall submit weekly electronic reports of daily quantities by the end of the day the following Monday. These reports shall be emailed to kbennett@auburnmaine.gov.

SUPPLEMENTAL SPECIFICATIONS SECTION 100 - GENERAL PROVISIONS

1. SCOPE

The work covered by this section includes furnishing all labor, equipment, materials, incidentals, and the performing of all operations in connection with the work encompassed by these contract documents. All work shall be subject to the terms and conditions of the contract documents.

2. STANDARD SPECIFICATIONS

The City of Auburn, Maine has adopted for this project, the "State of Maine, Department of Transportation, Standard Specifications, **November 2014 Edition**", and the Standard Details (November 2014) and the following Supplemental Specifications including all current additions or modifications thereof. In the case of conflict with the following Supplemental Specifications, addenda shall take precedence and shall govern.

Wherever in the Specifications and in this Contract the term "Department", "the Department of Transportation", "MDOT", or any reference to the "State of Maine, Department of Transportation" or its "Engineers" is mentioned, the intent and meaning shall be interpreted to refer to the CITY OF AUBURN, MAINE, or their authorized representative.

SUPPLEMENTAL SPECIFICATIONS SECTION 203 – EXCAVATION AND EMBANKMENT

The provisions of Section 203 of the Standard Specifications shall apply with the following additions and modifications.

203.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 203.01. This subsection shall be amended by the addition of the following:

This item shall be used for box cutting the existing roadway base material approximately 30" deep or as indicated on the Contract Drawings.

203.18 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 203.18.

203.19 BASIS OF PAYMENT

The Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 203.19.

Pay Item		Pay Unit
203.20	Common Excavation	Cubic Yard

SUPPLEMENTAL SPECIFICATIONS SECTION 304 – AGGREGATE BASE AND SUBBASE COURSE

The provisions of Section 304 of the Standard Specifications shall apply with the following additions and modifications.

304.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 304.01.

304.06 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 304.06.

304.07 BASIS OF PAYMENT

The Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 304.07.

Pay Item		Pay Unit
304.10	Aggregate Subbase Course – Gravel, Type D	Cubic Yard

SUPPLEMENTAL SPECIFICATIONS SECTION 403 - HOT MIX ASPHALT

The provisions of Section 403 of the Standard Specifications shall apply with the following additions and modifications.

403.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 403.01. This subsection shall be amended by the addition of the following:

This work shall include machine placing hot mix asphalt (HMA) as indicated in the Scope of Work. Materials and their use shall conform to the requirements of all related and applicable sections of this contract. HMA shall be placed and compacted with a minimum of two lifts where the total thickness of pavement to be placed exceeds 2". The **most recently** revised special provision Section 108 using the New England Selling Price shall apply to this contract.

403.04 METHOD OF MEASUREMENT

Measurement shall be in accordance with MaineDOT Standard Specifications Subsection 403.04.

403.05 BASIS OF PAYMENT

The Basis of Payment shall be in accordance with MaineDOT Standard Specifications Subsection 403.05.

Pay Item		Pay Unit
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	Ton
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Sidewalks, Drives, Islands & Incidentals)	Ton
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base Course)	Ton

SUPPLEMENTAL SPECIFICATIONS SECTION 409 - BITUMINOUS TACK COAT

The provisions of Section 409 of the Standard Specifications shall apply with the following additions and modifications.

409.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 409.01.

409.07 APPLICATION OF BITUMINOUS MATERIAL

Application of Bituminous Material shall be in accordance with Maine DOT Standard Specifications Subsection 409.07. This subsection shall be amended by the addition of the following:

The rate of application shall be 0.02 to 0.2 gallons per square yard as directed. During application, care shall be taken to assure areas outside of the work area shall not be discolored. Tack coat shall be required between all layers of Hot Mix Asphalt. **Tack coat shall also be required on all longitudinal and transverse joints.**

409.08 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 409.08.

409.09 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 409.09. This subsection shall be amended by the addition of the following:

There will be no separate payment given for bituminous tack coat, instead payment shall be considered incidental to the project.

SUPPLEMENTAL SPECIFICATIONS SECTION 603 – PIPE CULVERTS AND STORM DRAINS

The provisions of Section 603 of the Standard Specifications shall apply with the following additions and modifications.

603.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 603.01.

603.031 GENERAL

General shall be in accordance with Maine DOT Standard Specifications Subsection 603.031. This subsection shall be amended by the addition of the following:

The Contractor shall furnish the following pipe under Option III: High Density Polyethylene Pipe

603.11 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 603.11.

603.12 BASIS OF PAYMENT

The Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 603.12.

Pay Item		Pay Unit
603.159	12 Inch Culvert Pipe Option III	Linear Foot
603.169	15 Inch Culvert Pipe Option III	Linear Foot

SUPPLEMENTAL SPECIFICATIONS SECTION 604 – MANHOLES, INLETS, AND CATCH BASINS

The provisions of Section 604 of the Standard Specifications shall apply with the following additions and modifications.

604.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 604.01. This subsection shall be amended by the addition of the following:

This work consists of constructing catch basins and manholes in accordance with the requirements of Section 604 of the Standard Specifications and as shown in the Standard Details.

604.05 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 604.05. This subsection shall be amended by the addition of the following paragraph:

Installation of proposed catch basins as shown on the contract plans shall be measured per each, complete in place, regardless of overall depth.

604.06 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 604.06.

Pay Item		Pay Unit
604.072	Catch Basin Type A1-C	Each
604.092	Catch Basin Type B1-C	Each
604.16	Altering Catch Basin to Manhole	Each

SUPPLEMENTAL SPECIFICATIONS SECTION 606 - GUARDRAIL

The provisions of Section 606 of the Standard Specifications shall apply with the following additions and modifications.

606.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 606.01.

606.08 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 606.08.

606.09 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 606.09.

Pay Item		Pay Unit
606.353	Reflectorized Flexible Guardrail Marker	Each
606.23	Guardrail Type 3C – Single Rail	Linear Foot
606.232	Guardrail Type 3C – Over 15 Foot Radius	Linear Foot

SUPPLEMENTAL SPECIFICATIONS SECTION 606 - GUARDRAIL

(TANGENT GUARDRAIL TERMINAL - ENERGY ABSORBING)

The provisions of Section 606 of the Standard Specifications shall apply with the following additions and modifications.

606.01 DESCRIPTION

This subsection shall be amended by the addition of the following paragraph:

This work shall consist of furnishing and installing an energy absorbing tangent guardrail terminals for W-beam guardrail in accordance with these specifications at locations shown on the Plans or as directed by the Inspector.

606.02 MATERIALS

This subsection shall be amended by the addition of the following paragraph:

The terminal shall be in compliance with NCHRP 350 Test Level 3 and meet Federal Highway Administration eligibility requirements for reimbursement under the Federal-aid highway program. The system selected shall be one that is currently listed on Maine DOT's Qualified Products List of Terminals for W-Beam Guardrail Systems – Tangent Terminals (Energy Absorbing).

606.021 INSTALLATION

This subsection shall be amended by the addition of the following paragraph:

A set of installation drawings shall be submitted to the Inspector for the system installed. The system shall be installed according to the manufacturer's installation drawings and recommendations.

606.08 METHOD OF MEASUREMENT

This subsection shall be amended by the addition of the following paragraph:

Terminals shall be measured by each unit, complete, in place, and accepted.

606.09 BASIS OF PAYMENT

This subsection shall be amended by the addition of the following paragraph:

The accepted quantity of terminals shall be paid for at the contract unit price by each, such payment being full compensation for all labor, materials, equipment, and incidentals necessary to complete the work.

Pay Item		Pay Unit
606.81	Tangent Guardrail Terminal – Energy Absorbing	Each

SUPPLEMENTAL SPECIFICATIONS SECTION 607 – FENCES

The provisions of Section 607 of the Standard Specifications shall apply with the following additions and modifications.

607.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 607.01.

607.06 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 607.06.

607.07 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 607.07.

Pay Item		Pay Unit
607.163	Chain Link Fence – 4 Foot – PVC Coated	Linear Foot

SUPPLEMENTAL SPECIFICATIONS SECTION 608 – SIDEWALKS

The provisions of Section 608 of the Standard Specifications shall apply with the following additions and modifications.

608.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 608.01. This subsection shall be amended by the addition of the following paragraph:

This work shall consist of furnishing and installing curb ramp detectable warning plates with truncated domes at the locations shown on the plans or as established by the Inspector.

This item shall consist of constructing the concrete portion of the sidewalk ramp at an intersecting street. The bid price shall include all necessary work to install concrete (precast acceptable) and truncated domes. Work shall follow Section 608 of MDOT Standard Details, November 2014 edition and current ADA specifications.

608.02 MATERIALS, GENERAL

Materials, General shall be in accordance with Maine DOT Standard Specifications Subsection 608.02. This subsection shall be amended by the addition of the following paragraph:

<u>Detectable Warnings</u> – The Contractor shall provide new cast iron detectable warning plates as manufactured by one of the manufacturers listed on Maine DOT's Qualified Products list of Cast Iron Detectable Warning Plates.

This list can be found at: http://www.maine.gov/mdot/tr/qpl/

Each field shall match the width of the ramp and shall have a natural finish.

Prior to starting this work, the Contractor shall submit for approval the name of the selected supplier, manufacturer's literature describing the product, installation procedures, and routine maintenance required.

<u>Concrete</u> – Portland cement concrete shall meet the requirements of Section 502, Structural Concrete, Class A

608.04 DETECTABLE WARNINGS CONSTRUCTION

Detectable Warnings Construction shall be in accordance with Maine DOT Standard Specifications Subsection 608.04. This subsection shall be amended by the addition of the following paragraph:

Existing Concrete Curb Ramps – Existing Concrete shall be saw-cut to a dimension 100mm [4 in] larger than the detectable warning plates. New concrete shall be placed in the resulting opening and finished, and the new plates set into the wet concrete, according to manufacturer recommendations. New plates shall be set square with the curb edge and the base of the truncated domes shall be flush with adjacent surfaces to allow proper drainage.

<u>New Concrete Curb Ramps</u> – New concrete shall be placed and finished for the ramp, and the new plates set into the wet concrete, according to manufacturer recommendations. New plates shall be set square with the curb edge and the base of the truncated domes shall be flush with adjacent surfaces to allow proper drainage.

New Asphalt Ramps – Asphalt shall be saw cut and removed to provide an opening that will allow for the dimensions of the cast iron plate surrounded by an additional 100mm [4 in] border on all sides of the plate. New concrete shall be placed in the resulting opening and finished, and the new plates set into the wet concrete, according to manufacturer recommendations. New plates shall be set square with the curb edge and the base of the truncated domes shall be flush with adjacent surfaces to allow proper drainage.

608.05 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 608.05. This subsection shall be amended by the addition of the following paragraph:

Detectable warning fields properly placed and accepted shall be measured for payment by the square foot. Measurement shall include actual plate area, not surrounding concrete.

608.06 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 608.06. This subsection shall be amended by the addition of the following paragraph:

Payment will be full compensation at the contract unit price for all labor, materials, and equipment required to install the detectable warning fields. This shall include surface preparation and removal of concrete or asphalt, and necessary replacement concrete. On new concrete ramps, concrete shall be paid for under separate items

Pay Item		Pay Unit
608.26	Curb Ramp Detectable Warning Field	Square Foot

SUPPLEMENTAL SPECIFICATIONS SECTION 609 - CURB

The provisions of Section 609 of the Standard Specifications shall apply with the following additions and modifications.

609.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 609.01.

609.02 MATERIALS

Materials shall be in accordance with Maine DOT Standard Specifications Subsection 609.02. This subsection shall be amended by the addition of the following paragraph:

Canadian sourced granite curbing (Caledonia Type), which contains pink quartz, shall not be used on the project. All granite curbing shall be predominately gray in color.

609.09 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 609.09.

609.10 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 609.10.

Pay Item		Pay Unit
609.11	Vertical Curb Type 1	Linear Foot
609.12	Vertical Curb Type 1 - Circular	Linear Foot
609.2341	Terminal Curb Type 1- 4 Foot - Circular	Each
609.238	Terminal Curb Type 1-8 Foot	Each
609.2381	Terminal Curb Type 1-8 Foot - Circular	Each
609.31	Curb Type 3	Linear Foot

SUPPLEMENTAL SPECIFICATIONS SECTION 609 - CURB

(CONCRETE BASE FOR CURBING)

The provisions of Section 609 of the Standard Specifications shall apply with the following additions and modifications.

609.01 DESCRIPTION

This subsection shall be amended by the addition of the following paragraph:

This work shall consist of providing and placing concrete base fill for the stabilization of granite curb, at curb locations shown on the plans, or as authorized by the Inspector.

609.02 MATERIALS

This subsection shall be amended by the addition of the following paragraph:

Except as provided below, the materials used shall meet the requirements specified in Section 700 – Materials:

Portland Cement and Portland Pozzolan Cement	701.01
Water	701.02
Fine Aggregate for Concrete	703.01
Coarse Aggregate for Concrete	703.02

A mix design for the Portland Cement Concrete shall be submitted to the Inspector, with a minimum designed compressive strength of 2900 psi for the concrete used for the concrete base for curb prior to any placement.

609.021 GENERAL

This section shall be included with the addition of the following paragraph:

a. Preparation of Base

Prior to placing concrete base, the area being filled shall be thoroughly cleaned of all foreign and objectionable material. The Contractor shall not place the concrete base fill on or within a frozen base material.

b. Placing

Concrete fill shall be placed at to the pay limits shown on the plans, or as directed by the Inspector. Forms may be omitted at the Contractor's option. Vibration of concrete will not be required.

c. Protection

Concrete base fill must be adequately protected by traffic control devices as necessary after placement.

The concrete shall be allowed to cure for at least 72 hours.

During cold weather conditions, when temperatures drop below a temperature of 36°F (2.2°C) after placement, concrete base fill shall be protected by concrete blankets or a combination of plastic sheeting and straw.

d. Acceptance

Concrete base fill for curb shall be accepted in place by visual inspection. All rejected concrete fill shall be removed and replaced at the Contractor's expense.

609.09 METHOD OF MEASUREMENT

This subsection shall be amended by the addition of the following paragraph:

Concrete base for curbing will be measured for payment by the linear foot of concrete, in place, in accordance with the pay limits established, if such limits have been established. In the absence of pay limits, the Inspector may use discretion to accept the delivered quantity as the measurement for payment.

609.10 BASIS OF PAYMENT

This subsection shall be amended by the addition of the following paragraph:

Concrete base for curbing will be paid for at the contract unit price per linear foot, complete in place and accepted. This price shall include all materials, labor, and incidentals necessary to complete the work.

Pay Item		Pay Unit
609.50	Concrete Base for Curbing	Linear Foot

SUPPLEMENTAL SPECIFICATIONS SECTION 610 – STONE FILL, RIPRAP, STONE BLANKET, AND STONE DITCH PROTECTION

The provisions of Section 610 of the Standard Specifications shall apply with the following additions and modifications.

610.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 610.01.

610.05 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 610.05.

610.06 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 610.06.

Pay Item		Pay Unit
610.08	Plain Riprap	Cubic Yard

SUPPLEMENTAL SPECIFICATIONS SECTION 615 – LOAM & SEED

The provisions of Section 615 and 618 of the Standard Specifications shall apply with the following additions and modifications.

615.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications for both Loam (615) and Seed (618).

615.05 METHOD OF MEASUREMENT

Loam and Seed shall be measured by each square yard, complete, in place, and accepted. Depth of loam and type of seed shall be per the general notes in the plan set. Seed type shall match the requirements of the standard specifications.

615.06 BASIS OF PAYMENT

The accepted quantity of loam and seed shall be paid for at the contract unit price by each square yard, such payment being full compensation for all labor, materials, equipment, and incidentals necessary to complete the work.

Mulch shall be applied after seeding is placed. Mulch shall match the requirements of the standard specifications. Mulch is considered incidental to the 615.08 pay item and no separate payment for mulch will be made.

Pay Item		Pay Unit
615.08	Loam & Seed	Square Yard

SUPPLEMENTAL SPECIFICATIONS SECTION 620 – GEOTEXTILES

The provisions of Section 620 of the Standard Specifications shall apply with the following additions and modifications.

620.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 620.01.

620.09 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 620.09.

620.10 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 620.10.

Pay Item		Pay Unit
620.58	Erosion Control Geotextile	Square Yard

SUPPLEMENTAL SPECIFICATIONS SECTION 626 - FOUNDATIONS, CONDUIT AND JUNCTION BOXES FOR HIGHWAY SIGNING, LIGHTING AND SIGNALS

The provisions of Section 626 of the Standard Specifications shall apply with the following additions and modifications.

626.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 626.01.

The 24" diameter foundations shall be 7.0' in length and the 30" diameter foundations shall be 12.0' in length.

626.04 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 626.04.

626.05 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 626.05.

Pay Item		Pay Unit
626.32	24 Inch Diameter Foundation	Each
626.33	30 Inch Diameter Foundation	Each

SUPPLEMENTAL SPECIFICATIONS SECTION 627 – PAVEMENT MARKINGS

The provisions of Section 627 of the Standard Specifications shall apply with the following additions and modifications.

627.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 627.01.

627.09 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 627.09.

627.10 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 627.10.

Pay Item		Pay Unit
627.733	4" White or Yellow Painted Pavement Marking Line	Linear Foot
627.75	White or Yellow Pavement & Curb Marking	Square Foot

SUPPLEMENTAL SPECIFICATIONS SECTION 629 - HAND LABOR

The provisions of Section 629 of the Standard Specifications shall apply with the following additions and modifications.

629.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 629.01.

629.03 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 629.03.

629.04 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 629.04.

Pay Item		Pay Unit
629.05	Hand Labor, Straight Time	Hour

SUPPLEMENTAL SPECIFICATIONS SECTION 631 – EQUIPMENT RENTAL

The provisions of Section 631 of the Standard Specifications shall apply with the following additions and modifications.

631.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 631.01.

631.07 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 631.07.

631.08 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 631.08.

Pay Item		Pay Unit
631.12	All Purpose Excavator (Including Operator)	Hour
631.172	Truck – Large (Including Operator)	Hour
631.32	Culvert Cleaner (Including Operators)	Hour

SUPPLEMENTAL SPECIFICATIONS SECTION 634 – HIGHWAY LIGHTING

(REMOVE AND RESET LIGHT POLE)

The provisions of Section 634 of the Standard Specifications shall apply with the following additions and modifications.

634.01 DESCRIPTION

This subsection shall be amended by the addition of the following paragraph:

This work shall consist of demounting, storing, and reassembling the existing light pole noted on the plans on new 30" concrete foundations.

634.092 METHOD OF MEASUREMENT

This subsection shall be amended by the addition of the following paragraph:

Remove and reset light poles shall be measured by each unit, complete, in place, and accepted.

634.093 BASIS OF PAYMENT

This subsection shall be amended by the addition of the following paragraph:

The removal and resetting of light poles will be paid for by each at the contract price, which payment will be full compensation to remove and reset light poles plus furnishing all materials needed to remove and reset light poles including, but not limited to new underground conduit, wiring in underground conduit, pole wiring, removal of all wiring, conduit, foundations, new break-away devices, all identification tags, and all materials, labor, equipment, tools, miscellaneous hardware and incidentals necessary to complete the work.

Foundations will be paid for separately and are not considered part of the Remove and Reset Light Pole pay item.

Pay Item		Pay Unit
634.208	Remove and Reset Light Pole	Each

SUPPLEMENTAL SPECIFICATIONS SECTION 643 – TRAFFIC SIGNALS

(RECTANGULAR RAPID FLASHING BEACON)

The provisions of Section 643 of the Standard Specifications shall apply with the following additions and modifications.

643.01 DESCRIPTION

This subsection shall be amended by the addition of the following:

The Contractor shall furnish and install rectangular rapid flashing beacons including signage assemblies at pedestrian crossings where shown on the plans. Their installation shall be as described in this special provision.

643.021 MATERIALS

This subsection shall be amended by the addition of the following:

Each rectangular rapid flashing beacon (RRFB) assembly shall consist of two rectangular-shaped yellow indications (in both directions), each with an LED-array based light source. Each RRFB indication shall be a minimum of approximately 5 inches wide by approximately 2 inches high.

Each RRFB signage assembly shall be mounted on a 14-foot-long 4-inch I.D. non-tapered Schedule 40 galvanized steel pole with pole cap. Poles shall have a 0.75" minimum thickness galvanized ASTM A36 steel base plate circumferentially welded to the pole shaft. Anchor bolts for attachment of base plates to foundations shall be 0.75" x 17" (minimum) x 3" threaded. Four anchor bolts shall be provided for each support pole.

Where designated on the plans, poles for RRFB signage assemblies shall be installed with breakaway bases. Breakaway devices shall conform to the latest edition of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" and NCHRP 350. Breakaway devices shall be designed such that anchor bolts will not bend upon vehicle impact. A frangible coupling such as Transpo "Pole-Safe" series, Manitoba safety base with reaction plate, or other approved equal meeting requirements of Section 721 shall be used. Electrical conductors at the pole base shall have a fusible breakaway device that will disconnect all ungrounded conductors simultaneously.

Each support pole shall be installed with a square aluminum pedestal base with grounding lug.

Signs for RRFB signage assemblies shall be sheet aluminum and meet requirements of Section 645 for Type II regulatory, warning and route marker assembly signage. The signage assemblies shall include a W11-2 pedestrian crossing sign, W16-7p diagonal arrow plaque, and R10-25 pedestrian push button signs.

Pedestrian push button assemblies for activating RRFB indications shall be installed on each RRFB support pole, mounted at 42 inches above sidewalk grade and within 10 inches of the edge of sidewalk. Push buttons shall meet Americans with Disabilities Act vibrotactile technical requirements for accessible pedestrian signals (APS). The pushbutton assembly shall include a raised directional arrow indicating the direction of crossing. Audible locator and percussive crossing tones are required.

643.025 CONSTRUCTION AND OPERATION

This subsection shall be amended by the addition of the following:

The two RRFB indications in an assembly shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of approximately seven inches (7"), measured from inside edge of one indication to inside edge of the other indication.

The outside edges of the RRFB indications, including any housing, shall not project beyond the outside edges of the W11-2 sign in the beacon signage assembly.

As a specific exception to 2009 MUTCD Section 4L.01 guidance, the RRFB indications shall be located between the bottom of the W11-2 crossing warning sign and the top of the supplemental W16-7p downward diagonal arrow plaque, rather than 12 inches above or below the sign assembly.

When activated, the two yellow indications in each RRFB shall flash in a rapidly alternating "wig-wag" flashing sequence (left light on, then right light on). The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30 flashes per second, to avoid frequencies that might cause seizures.

The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated March 2014.

The RRFBs, normally dark, shall initiate operation only upon pedestrian push button actuation, and shall cease operation at a predetermined time after the pedestrian actuation. For this project, the duration of operation of the RRFBs following each actuation shall be 25 seconds. All RRFBs associated with a given crosswalk shall, when activated, simultaneously commence operation of their alternating rapid flashing indications and shall cease operation simultaneously. Communication between the devices shall be by spread spectrum wireless. Power source for RRFB's shall be solar.

MUTCD R10-25 pedestrian instruction signage with the legend PUSH BUTTON TO TURN ON WARNING LIGHTS shall be mounted adjacent to or integral with each pedestrian pushbutton.

643.18 METHOD OF MEASUREMENT

This subsection shall be amended by the addition of the following:

All rectangular rapid flashing beacon and sign assemblies associated with a single crosswalk shall constitute a single installation. Each installation will be measured for payment by the lump sum in place.

643.19 BASIS OF PAYMENT

This subsection shall be amended by the addition of the following:

Rectangular Rapid Flashing Beacon will be paid for at the contract lump sum price, which payment will be full compensation for furnishing and installing all materials including, but not limited to, the RRFB LED arrays, flasher, timer, lockable controller cabinet, steel poles with base plate, anchor bolts and pedestal base, breakaway devices, wiring and solar power unit/service, pole risers, pedestrian push button assemblies, crosswalk signage, radio communication devices and all appurtenances and incidentals required for a complete and functioning installation. Foundations and conduit (if required) will be paid under applicable Section 626 pay items.

Pay Item		Pay Unit
643.60	Rectangular Rapid Flashing Beacon	Lump Sum

SUPPLEMENTAL SPECIFICATIONS SECTION 645 – HIGHWAY SIGNING

The provisions of Section 645 of the Standard Specifications shall apply with the following additions and modifications.

645.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 645.01.

645.08 METHOD OF MEASUREMENT

Method of Measurement shall be in accordance with Maine DOT Standard Specifications Subsection 645.08.

645.09 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 645.09. This subsection shall be amended by the addition of the following paragraph:

Demolition of existing signs and poles shall be considered incidental to the project.

Demounting, stockpiling, protecting and reinstalling existing signs and poles will be considered incidental to the project.

Pay Item		Pay Unit
645.292	Regulatory, Warning, Confirmation, and Route Marker Assembly Signs Type II	Square Foot

SUPPLEMENTAL SPECIFICATIONS SECTION 652 – MAINTENANCE OF TRAFFIC

(WORK ZONE TRAFFIC CONTROL)

The provisions of Section 652 of the Standard Specifications shall apply with the following additions and modifications.

652.3.6 TRAFFIC CONTROL

This subsection shall be amended by the addition of the following:

The Contractor must submit a written Traffic Control Plan before the Preconstruction Meeting to the City Engineer for approval.

652.7 METHOD OF MEASUREMENT

This subsection shall be amended by the addition of the following:

Work Zone Traffic Control shall be measured as a percentage of work completed to date relative to the total work as shown on the Contract Plans.

652.8 BASIS OF PAYMENT

This subsection shall be amended by the addition of the following:

This work shall consist of providing and maintaining all equipment, labor and materials necessary to provide for a safe work zone to the travelling public including all transportation modes. Traffic control items include but are not limited to: flaggers, construction signs, barrels, cones, barricades, flashing lights, raised plastic markers, etc. All work shall be in accordance with the MUTCD. Payment for all related work will be Lump Sum.

Pay Item		Pay Unit
652.39	Work Zone Traffic Control	Lump Sum

SUPPLEMENTAL SPECIFICATIONS SECTION 659 – MOBILIZATION

The provisions of Section 659 of the Standard Specifications shall apply with the following additions and modifications.

659.01 DESCRIPTION

Description shall be in accordance with Maine DOT Standard Specifications Subsection 659.01. This subsection shall be amended by the addition of the following paragraph:

This item shall consist of preparatory work and operations including, but not limited to those necessary to the movement of personnel, equipment, supplies and incidentals to the project site; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various items on the project site.

659.02 BASIS OF PAYMENT

Basis of Payment shall be in accordance with Maine DOT Standard Specifications Subsection 659.02. This subsection shall be amended by the addition of the following paragraph:

Partial payments will be made in accordance with Section 108.2.3 Mobilization of the Standard Specifications.

Pay Item		Pay Unit
659.10	Mobilization	Lump Sum