

SALEM MUNICIPAL SERVICESRoy E. Sorenson - *Director*www.townofsalemnh.org**ENGINEERING DIVISION**Daniel Hudson PE - *Director*

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**2021 ROADWAY IMPROVEMENT PROJECT
MANOR PKWY, FREEDOM DR, LEMAY ROAD
SALEM, NH****ADDENDUM No. 1****January 14, 2021**

This Addendum forms part of the Bidding and Contract Documents and modifies the Drawings and Contract and Specifications for the 2021 Roadway Improvement Project – Manor Parkway, Freedom Drive, Lemay Road. The items set forth herein, whether of omission, addition, substitution or clarification, are all to be included in and shall form part of the proposed work and Bids submitted to the Town of Salem, New Hampshire. Inclusion of this Addendum shall be acknowledged by inserting its number in the space provided in the Bid Proposal form (Section 00301A). Failure to acknowledge any and all addenda in the above specified Bid Proposal form may be cause for rejection of the bid by the Owner on the grounds that it is not responsive.

ADDEDNDUM No. 1

Bidders are advised the following clarifications and changes are generated by questions at the pre-bid meeting on January 7, 2020 and are hereby incorporated into the CONTRACT DOCUMENTS AND SPECIFICATIONS:

1. **Insert** the attached Contract Drawings in the CONTRACT DOCUMENTS AND SPECIFICATIONS and **Discard** the original version identified as Appendix A.

The complete drawing set is reissued for simplicity. Modifications of the revised drawings complete the following:

- **Manor Pkwy - Clarification of casting adjust, replace, type. Contractor is further advised to coordinate all such items with the Engineer prior to the start of work where field conditions differ.**
- **Manor Pkwy – Plan identifies “type B bit berm” the contract provides for modified cape cod berm. Contractor shall reference detail.**
- **Lemay Rd – Revised drawing removes reclaim stone shone in the original version.**
- **Lemay Rd – Revised drawing provides clarification of road box widening locations and quantities.**
- **Lemay Rd – Solid sleeve added to water main connections**
- **Freedom Drive - Revised drawing removes reclaim stone shone in the original version.**



- Freedom Drive – Revised drawing provides clarification to sidewalk paving. Existing pavement shall be removed under Item 203.1. Preparation of existing base materials shall be part of the sidewalk paving item.
- Project Details – Revised drawings provide changes to typical sections and provide pavement match detail for Manor parkway.

2. **Insert** the Routh 28 (South Broadway) drainage improvement design into the CONTRACT DOCUMENTS and SPECIFICATIONS.

The additional design work shall be bid as Schedule B. Work is located on South Broadway between Rockingham Blvd and Cluff Crossing Road. Work scope is as follows:

- Construct 24" infiltration drainage system in existing ditch at shoulder of road.
- Install new vertical granite curb east and west side of road to limits indicated. Existing granite curbing removed shall be salvaged to the Town at the Town transfer station as part of the item.
- Install new drain structurers on east side of road.
- Mill/overlay 1.5" full road width. Coordinate paving operation with adjacent intersection contractor. It is intended that a single contractor will pave the entire length between intersections. Completion schedules will dictate which contractor completes this operation.
- Provide striping, symbols and words. Coordinate striping operation with adjacent intersection contractor. It is intended that a single contractor will stripe the entire length between intersections. Completion schedules will dictate which contractor completes this operation.

3. **Insert** the attached Section 00301A (Bid) in the CONTRACT DOCUMENTS AND SPECIFICATIONS and **Discard** the original version of Section 00301A.

The revised document provides for inclusion of missing items inadvertently omitted. The revision further makes adjustments in quantity for several items. The revision further adds Schedule B – S. Broadway Drainage Improvements to the project.

4. **Insert** the attached Quantity Breakdown by Street in the CONTRACT DOCUMENTS AND SPECIFICATIONS and **Discard** the original version located in Appendix B.

The revised document provides for inclusion of missing items inadvertently omitted. The revision further makes adjustments in quantity for several items. The revision further adds Schedule B – S. Broadway Drainage Improvements to the project.

5. See attached Pre-Bid meeting agenda from January 12, 2021 prebid meeting.

The attached agenda considers three separate projects. The PreBid meeting for the projects was held simultaneously given similarity of work type.

6. **Insert** the attached Supplemental Conditions in the CONTRACT DOCUMENTS AND SPECIFICATIONS and **Discard** the original version of the noted Supplemental Conditions. Included are the following:
 - a. 401 – Plant Mix Pavements – General
 - b. 603 – Culverts and Storm Drains
 - c. 604 – Catch Basins, Drop Inlets, and Manholes

The revised documents provide clarification on measurement and payment.

7. **Insert** the attached Supplemental Condition 607 - Fences in the CONTRACT DOCUMENTS AND SPECIFICATIONS.

The attached document was inadvertently omitted from the Contract Documents.

8. **Bidder Question:** Bid item 611.90001 adjust water gates & shut off indicates “by others”. There is also a note at the Stiles Rd intersection “adjust water gate and shut off by others or replace as directed”, but there is no item for replacement. If it needs replacement will there be a Bid item added for this?

The attached revised Bid Schedule removes “by others” nomenclature from the water gate adjustment item. The revision also includes a new item for replacement of valve boxes.

9. **Bidder Question:** Are brass wedges required on new water main joints.

Yes. The Salem Specification and corresponding details indicate use of brass wedges.

10. **Bidder Question:** On Lemay Rd, will the water department jump houses with hoses for temporary water service? Or will the Contractor be tasked with temp service to the two affected homes.

The Salem Water Department will work with the Contractor to hook up to the existing hydrant north of the Lemay Rd intersection. Necessary hoses and connections will be provided by the Water Department.

11. **Bidder Question:** On Lemay Rd, will new services be connected all the way to the buildings?

No. The two existing services at the North Main St end of the project will connect to the existing water shut off. The two new services at the Emerson Way end of the project will extend to the Right-of-Way and at least 5-feet from the new edge of pavement.

SECTION 00301A

BID

To the Town of Salem, New Hampshire, herein called the Owner, acting by and through its Engineering Department, for the 2021 Roadway Improvement Project – Manor Parkway, Freedom Drive, Lamay Road.

The Undersigned, as bidder, herein referred to as singular and masculine, declares as follows:

- (1) The only parties interested in this BID as Principals are named herein.
- (2) This BID is made without collusion with any other person, firm, or corporation.
- (3) No officer, agent, or employee of the Owner is directly or indirectly interested in this BID.
- (4) He has carefully examined the site and adjacent areas of the proposed Work and fully informed and satisfied himself as to the conditions and restraints existing, the character and requirements of the proposed Work, the difficulties attendant upon its execution given said conditions and restraints, and the accuracy of all estimated quantities stated in this BID, and he has carefully read and examined the Contract Documents therein referred to and knows and understands the terms and provisions thereof;
- (5) He understands that information relative to subsurface and other conditions, natural phenomena, existing pipes, foundations, and other structures (surface and/or subsurface) has been furnished only for his information and convenience without any warranty or guarantee, expressed or implied, that the subsurface and/or other conditions, natural phenomena, existing pipes, foundations, and other structures (surface and/or subsurface) actually encountered will be the same as those shown in the Contract Documents and he agrees that he shall not use or be entitled to use any such information made available to him through the Contract Documents or otherwise or obtained by him in his own examination of the site, as a basis of or ground for any claim against the Owner or the Engineer arising from or by reason of any variance which may exist between the aforesaid information made available to or acquired by him and the subsurface and/or other conditions, natural phenomena, existing pipes, foundations, and other structures (surface and/or subsurface) actually encountered during the

BID
00301A -1

construction work, and he has made due allowance therefore in this BID;

- (6) He understands that protection of public or private property is the Contractor's responsibility and any damage, whether in or out of the work limit, to any public or private property, facility, structure or utility resulting from any action of his in the prosecution of work shall be his sole burden to correct to the fullest satisfaction of the owner of such public or private property, facility, structure or utility. He understands that no additional compensation of any kind is warranted or will be granted for any damage to any public or private property, facility, structure, or utility damaged as a result of his prosecution of any work.
- (7) he understands that the quantities of work tabulated in this BID or indicated in the Contract Documents are only approximate and are subject to increase or decrease as deemed necessary by the Engineer.
- (8) he agrees that, if this BID is accepted he will contract with the Owner, as provided in the copy of the Contract Documents deposited in the office of the Engineer, this BID form being part of said Contract Documents, and that he will perform all the work and furnish all the materials and equipment, and provide all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other things required by the Contract Documents in the manner and within the time therein prescribed and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the lump sum or unit price applicable to each item of the Work as stated in the schedule below.

Note: Bidders must submit a completed Statement of Bidders Qualifications with the Bid. Failure to submit a completed Statement of Bidders Qualifications may be deemed by the Owner as a non-responsive Bid. Refer to Section 00420.

Note: Bidders must bid on each item. All entries in the entire BID must be made clearly and in ink. In case of discrepancy between prices in writing and in figures, the writing shall govern. In case of discrepancy between the product obtained by multiplying the estimated quantity by the unit price, and the extended amount, the product obtained shall govern. In case of discrepancy between total of extended amounts and total amount of bid stated, total of items shall govern. Use the pages in this document when submitting proposal and submit contract documents intact.

This BID includes Addenda number(s) _____ (To be filled in by Bidder if Addenda are issued.)

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00301A -2

The undersigned agrees that extra work, if any, performed in accordance with the Article 10 of the General Conditions of the Contract will be paid for in accordance with Article 11 of the General Conditions of the Contract.

If this BID is accepted by the Owner, the undersigned agrees to complete the entire work provided to be done under the Contract within the time stipulated in the AGREEMENT.

As provided in the INSTRUCTIONS TO BIDDERS, the bidder hereby agrees that he will not withdraw this BID for a period of 90 days after the actual date of the opening of the Bid and that, if the Owner shall accept this BID, the bidder will duly execute and acknowledge the AGREEMENT and furnish, duly executed and acknowledged, the required CONTRACT BONDS within ten (10) days after notification that the AGREEMENT and other Contract Documents are ready for signature.

Should the bidder fail to fulfill any of his agreements as hereinabove set forth, the Owner shall have the right to retain as liquidated damages the amount of the bid security which shall become the Owner's property. If a bid bond was given, it is agreed that the amount thereof shall be paid as liquidated damages to the Owner by the Surety.

The bidder, by submittal of this BID, agrees with the Owner that the amount of the bid security deposited with this BID fairly and reasonably represents the amount of damages the Owner will suffer due to the failure of the bidder to fulfill his agreements as above provided.

The undersigned further certifies under penalties of perjury that this bid is in all respects bona fide, fair, and made without collusion or fraud with any other person. As used in this paragraph the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The attached CERTIFICATE OF NON-COLLUSION must be signed and submitted as part of the Bid Proposal.

(SEAL) _____
(Name of Bidder)

By _____
(Signature and title of authorized
representative)

(Telephone)

(Business address)

(Fax Number)

(City and State)

Date _____

BID
00301A -3

The bidder is a corporation incorporated in the State (or Commonwealth) of _____ - a partnership - an individual. (Bidder must add and delete as necessary to make this sentence read correctly.)

Note: If the bidder is a corporation, affix corporate seal and give below the names of its president, treasurer, and general manager if any; if a partnership, give full names and residential addresses of all partners; and if an individual, give residential address if different from business address.

BID
00301A -4

Road Improvement Program
(rev Jan 2015)

Bid Schedule A

2021 Roadway Improvement Project
Manor Parkway, Lemay Road, Freedom Drive
Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL (Figures)
				Words		
201.1	CLEARING AND GRUBBING	1515	SY			
201.21	REMOVING SMALL TREES	6	EA			
201.22	REMOVING LARGE TREES	6	EA			
203.1	COMMON EXCAVATION (WHERE DIRECTED)	1250	CY			
203.6	EMBANKMENT IN PLACE	100	CY			
206.19	COMMON STRUCTURE EXCAVATION EXPLORATORY	80	CY			
206.2	ROCK STRUCTURE EXCAVATION	250	CY			
214.	FINE GRADING	1	U			
304.4	CRUSHED STONE (FINE GRADATION)	604	CY			
306.108	RECLAIMED STABILIZED BASE - PROCESSED IN PLACE, 8" DEPTH	1548	SY			
306.11	RECLAIMED STABILIZED BASE - PROCESSED IN PLACE, 10" DEPTH	10154	SY			

Bid Schedule A

2021 Roadway Improvement Project
Manor Parkway, Lemay Road, Freedom Drive
Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL (Figures)
				Words		
306.112	RECLAIMED STABILIZED BASE - PROCESSED IN PLACE, 12" DEPTH	818	SY			
306.208	RECLAIMED STABILIZED BASE - REMOVED AND REHANDLED, 8" DEPTH	631	SY			
306.212	RECLAIMED STABILIZED BASE - REMOVED AND REHANDLED, 12" DEPTH	837	SY			
306.36	2" STONE FOR RECLAIMED STABILIZED BASE (3-INCH DEPTH)	1600	TON			
403.11A	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (BINDER MIX)	2420	TON			
403.11B	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (WEARING MIX)	1540	TON			
403.12	HOT BITUMINOUS PAVEMENT, HAND METHOD	357	TON			
417.	COLD PLANING BITUMINOUS SURFACES	1830	SY			
603.00212	12" R.C. PIPE, 2000D	65	LF			
603.00218	18" R.C. PIPE, 2000D	70	LF			
603.83212	12" SMOOTH INTERIOR, DOUBLE WALL (TYPE S)	100	LF			

Bid Schedule A

2021 Roadway Improvement Project
Manor Parkway, Lemay Road, Freedom Drive
Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL (Figures)
				Words		
604.0007	POLYETHYLENE LINER	19	EA			
604.12	CATCH BASINS, 4-FOOT DIAMETER (TYPE B OR F)	2	EA			
604.4	RECONSTRUCTING/REMODEL CATCH BASINS	5	EA			
604.45	ADJUST CATCH BASIN GRATES & FRAMES	16	EA			
604.5	ADJUSTING SEWER MANHOLES OR DRAINAGE MANHOLES	16	EA			
604.62	DRAINAGE MANHOLE COVERS AND FRAMES	5	EA			
604.72	GRATES & FRAMES (TYPE B OR TYPE F)	14	EA			
608.1301	3" BITUMINOUS SIDEWALK	290	SY			
608.2401	6" REINFORCED CONCRETE SIDEWALK	18	SY			
608.54	DETECTABLE WARNING DEVICES	3	SY			
609.02	CURVED GRANITE CURB	18	LF			

Bid Schedule A

2021 Roadway Improvement Project
Manor Parkway, Lemay Road, Freedom Drive
Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL (Figures)
				Words		
609.5	RESET GRANITE CURB	6	LF			
609.811	BITUMINOUS CURB (MODIFIED CAPE COD BERM)	5110	LF			
611.05206	6" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	570	LF			
611.05216	16" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	10	LF			
611.50007	3/4" COPPER SERVICE PIPE	270	LF			
611.51007	3/4" CORPORATION STOP	5	EA			
611.52007	3/4" CURB STOP WITH BOX	5	EA			
611.70006	6" FITTING	10	EA			
611.70016	16" FITTING	2	EA			
611.71006	6" GATE VALVE WITH BOX	2	EA			
611.90001	ADJUSTING WATER GATES AND SHUTOFFS BY OTHERS	27	EA			

Bid Schedule A

2021 Roadway Improvement Project
Manor Parkway, Lemay Road, Freedom Drive
Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL (Figures)
				Words		
615.03	TRAFFIC SIGN, TYPE C	50	SF			
615.06	TRAFFIC SIGN, TYPE CC	6	SF			
618.6	UNIFORMED OFFICERS		ALLOW	SEVENTY THOUSAND DOLLARS	\$70,000.00	\$70,000.00
619.1	MAINTENANCE OF TRAFFIC	1	LS			
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	15000	LF			
632.0108	RETROREFLECTIVE PAINT PAVE. MARKING, 8" LINE	90	LF			
632.3118	RETROREFLECTIVE THERMO. PAVE. MARKING, 18 IN (STOP BARS)	117	LF			
632.32	RETROREFLECT. THERMOPLAS. PAVEMENT MARKING, SYMBOL OR WORD	230	SF			
645.441	SEDIMENT FILTER LOGS (COMPOST SOCK)	300	LF			
645.531	SILT FENCE	300	LF			
645.533	INLET FILTER BASKET	29	EA			

Bid Schedule A

2021 Roadway Improvement Project
Manor Parkway, Lemay Road, Freedom Drive
Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL (Figures)
				Words		
646.512	TURF ESTABLISHMENT WITH MULCH, TACKIFIERS, AND LOAM	7150	SY			
670.0661	REMOVE & RE-SET SINGLE OR DOUBLE MAILBOX ASSEMBLIES	4	EA			
692.	MOBILIZATION	1	LS			
900.1	REIN. CONC. PC-1 HEADWALL (12" TO 18" DIA. PIPE)	6	U			
912.	R&R LANDSCAPING	1	LS			
1010.2	ASPHALT CEMENT ADJUSTMENT (ALLOWANCE)	ALLOW		TWENTY THOUSAND DOLLARS	\$20,000.00	\$20,000.00
TOTAL AMOUNT						

Key to Units: LF = Linear Feet; VF = Vertical Feet; SY = Square Yards; CY = Cubic Yards; LS = Lump Sum; EA = Each

Bid Schedule B

2021 Roadway Improvement Project

South Broadway Resurfacing and Drainage Improvements Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE		Figures	EXTENDED TOTAL (Figures)
				Words			
202.7	REMOVAL OF GUARDRAIL	770	LF				
203.1	COMMON EXCAVATION (WHERE DIRECTED)	480	CY				
203.6	EMBANKMENT IN PLACE (WHERE DIRECTED)	50	CY				
206.19	COMMON STRUCTURE EXCAVATION EXPLORATORY	50	CY				
214.	FINE GRADING	1	U				
304.4	CRUSHED STONE (FINE GRADATION)	86	CY				
403.11A	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (BINDER MIX)	220	TON				
403.11B	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (WEARING MIX)	810	TON				
403.12	HOT BITUMINOUS PAVEMENT, HAND METHOD	57	TON				
417.	COLD PLANING BITUMINOUS SURFACES	7800	SY				
603.83212	12" SMOOTH INTERIOR, DOUBLE WALL (TYPE S)	130	LF				

Bid Schedule B

2021 Roadway Improvement Project

South Broadway Resurfacing and Drainage Improvements Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	(Figures)
				Words		
603.83224	24" SMOOTH INTERIOR, DOUBLE WALL (TYPE S)	41	LF			
604.0007	POLYETHYLENE LINER	6	EA			
604.124	CATCH BASINS TYPE B, 4-FOOT DIAMETER	9	EA			
604.45	ADJUST CATCH BASIN GRATES & FRAMES	3	EA			
604.5	ADJUST MANHOLE COVER & FRAME (SEWER OR DRAIN)	10	EA			
605.82453	48" AGGREGATE UNDERDRAIN WITH 24" PERFORATED CPE	1010	LF			
608.36	6" REINFORCED CONCRETE SIDEWALK	15	SY			
608.54	DETECTABLE WARNING DEVICES, CAST IRON	1	SY			
609.01	STRAIGHT GRANITE CURB	1500	LF			
609.02	CURVED GRANITE CURB	200	LF			
609.5	RESET GRANITE CURB	330	LF			

Bid Schedule B

2021 Roadway Improvement Project

South Broadway Resurfacing and Drainage Improvements Salem, New Hampshire

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL (Figures)
				Words		
618.6	UNIFORMED OFFICERS	20000	ALLOW	TWENTY THOUSAND DOLLARS AND NO CENTS	\$20,000.00	\$20,000.00
619.1	MAINTENANCE OF TRAFFIC	1	LS			
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	20600	LF			
632.3118	RETROREFLECTIVE THERMO. PAVE. MARKING, 18 IN (STOP BAR)	150	LF			
632.32	REFLECT. THERMOPLAS. PAVEMENT MARKING, SYMBOL OR	1100	SF			
645.441	SEDIMENT FILTER LOGS (COMPOST SOCK)	800	LF			
645.531	SILT FENCE	800	LF			
645.533	INLET FILTER BASKET	17	EA			
646.512	URF ESTABLISHMENT WITH MULCH, TACKIFIERS, AND LOAM (2100	SY			
TOTAL AMOUNT						

Key to Units: LF = Linear Feet; VF = Vertical Feet; SY = Square Yards; CY = Cubic Yards; LS = Lump Sum; EA = Each

Total Amount of Base Bid – Schedule A:

\$ _____
(Amount in Figures)

(Amount in Words)

Total Amount of Base Bid – Schedule B (S. Broadway Resurfacing & Drainage Improvements):

\$ _____
(Amount in Figures)

(Amount in Words)

Total Amount of Base Bid – Schedule A + Section B:

\$ _____
(Amount in Figures)

(Amount in Words)

BID
00301A -17

Road Improvement Program
(rev Jan 2015)

CERTIFICATE OF NON-COLLUSION

By submission of this Proposal, the bidder and each person signing on behalf of the bidder, certifies as to its own organization, under penalty of perjury, that to the best of their knowledge and belief:

1. The prices in this Bid Proposal have been arrived at independently without collusion, consultation, communication, or agreement with any other bidder or with any competitor for the purpose of restricting competition.
2. Unless required by law, the prices that have been quoted in this Bid Proposal have not been knowingly disclosed and will not knowingly be disclosed by the bidder, directly or indirectly, to any other bidder or competitor prior to opening of Proposals.
3. No attempt has been made or will be made by the bidder to induce any other person, partnership, or corporation to submit or not to submit a proposal for the purpose of restricting competition.
4. The signers of the Proposal hereby tender to the Owner this sworn statement that the named Contractor(s) has not, whether directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action to restrain free competitive bidding in connection with this Proposal.

A Bid Proposal will not be considered for award nor will any award be made where there has not been compliance with the statements in the certification above.

(Name of person signing bid or proposal)

(Name of business)

END OF SECTION 00301A

BID
00301A -13

Bid Quantity Summary by Location

Note: Quantities herein are provided solely to give the bidder an indication of how work is divided by road. The quantities and locations, however, are not necessarily intended to represent the final amounts to be utilized on each road.

SCHEDULE A - ROADWAY IMPROVEMENTS		Total Est. Quant.	Unit	Location		
Item	Item Description			Est. Quant.	Est. Quant.	Est. Quant.
201.1	CLEARING AND GRUBBING	1,515.0	SY	290	1200	25
201.21	REMOVING SMALL TREES	6.0	EA	0	6	0
201.22	REMOVING LARGE TREES	6.0	EA	0	6	0
203.1	COMMON EXCAVATION (WHERE DIRECTED)	1,250.0	CY	270	840	140
203.6	EMBANKMENT IN PLACE	100.0	CY	50	30	20
206.19	COMMON STRUCTURE EXCAVATION EXPLORATORY	80.0	CY	50	30	0
206.2	ROCK STRUCTURE EXCAVATION	250.0	CY	50	200	0
214.	FINE GRADING	1.0	U	0.5	0.4	0.1
304.4	CRUSHED STONE (FINE GRADATION)	604.0	CY	290	270	44
306.108	RECLAIMED STABILIZED BASE - PROCESSED IN PLACE, 8" DEPTH	1,548.0	SY	0	453	1095
306.110	RECLAIMED STABILIZED BASE - PROCESSED IN PLACE, 10" DEPTH	10,154.0	SY	10154	0	0
306.112	RECLAIMED STABILIZED BASE - PROCESSED IN PLACE, 12" DEPTH	818.0	SY	818	0	0
306.208	RECLAIMED STABILIZED BASE - REMOVED AND REHANDLED, 8" DEPTH	631.0	SY	0	631	0
306.212	RECLAIMED STABILIZED BASE - REMOVED AND REHANDLED, 12" DEPTH	837.0	SY	0	0	837
306.36	2" STONE FOR RECLAIMED STABILIZED BASE (3-INCH DEPTH)	1,600.0	TON	1600	0	0
403.11A	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (BINDER MIX)	2,420.0	TON	1700	420	300
403.11B	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (WEARING MIX)	1,540.0	TON	1100	260	180
403.12	HOT BITUMINOUS PAVEMENT, HAND METHOD	357.0	TON	310	32	15
417.	COLD PLANING BITUMINOUS SURFACES	1,830.0	SY	1700	60	70
603.00212	12" R.C. PIPE, 2000D	65.0	LF	65	0	0
603.00218	18" R.C. PIPE, 2000D	70.0	LF	70	0	0
603.83212	12" SMOOTH INTERIOR, DOUBLE WALL (TYPE S)	100.0	LF	0	100	0
604.0007	POLYETHYLENE LINER	19.0	EA	15	0	4
604.12	CATCH BASINS, 4-FOOT DIAMETER (TYPE B OR F)	2.0	EA	2	0	0
604.4	RECONSTRUCTING/REMODEL CATCH BASINS	5.0	EA	5	0	0
604.45	ADJUST CATCH BASIN GRATES & FRAMES	16.0	EA	14	0	2
604.5	ADJUSTING SEWER MANHOLES OR DRAINAGE MANHOLES	16.0	EA	14	0	2
604.62	DRAINAGE MANHOLE COVERS AND FRAMES	5.0	EA	5	0	0
604.72	GRATES & FRAMES (TYPE B OR TYPE F)	14.0	EA	10	0	4
608.1301	3" BITUMINOUS SIDEWALK	290.0	SY	0	0	290
608.2401	6" REINFORCED CONCRETE SIDEWALK	18.0	SY	0	0	18
608.54	DETECTABLE WARNING DEVICES	3.0	SY	0	0	3
609.02	CURVED GRANITE CURB	18.0	LF	0	0	18
609.5	RESET GRANITE CURB	6.0	LF	0	0	6
609.811	BITUMINOUS CURB (MODIFIED CAPE COD BERM)	5,110.0	LF	4600	0	510
611.05206	6" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	570.0	LF	0	570	0
611.05216	16" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	10.0	LF	0	10	0
611.50007	3/4" COPPER SERVICE PIPE	270.0	LF	0	270	0
611.51007	3/4" CORPORATION STOP	5.0	EA	0	5	0
611.52007	3/4" CURB STOP WITH BOX	5.0	EA	0	5	0
611.70006	6" FITTING	10.0	EA	0	10	0
611.70016	16" FITTING	2.0	EA	0	2	0
611.71006	6" GATE VALVE WITH BOX	2.0	EA	0	2	0
611.90001	ADJUSTING WATER GATES AND SHUTOFFS BY OTHERS	27.0	EA	20	0	7
615.03	TRAFFIC SIGN, TYPE C	50.0	SF	31	11	8
615.06	TRAFFIC SIGN, TYPE CC	6.0	SF	2	4	0
618.6	UNIFORMED OFFICERS	70,000.0	ALLOW	50000	10000	10000
619.1	MAINTENANCE OF TRAFFIC	1.0	LS	0.5	0.4	0.1
632.0104	RETROREFLECTIVE PAINT PAVE, MARKING, 4" LINE	15,000.0	LF	15000	0	0
632.0108	RETROREFLECTIVE PAINT PAVE, MARKING, 8" LINE	90.0	LF	0	0	90
632.3118	RETROREFLECTIVE THERMO. PAVE. MARKING, 18 IN (STOP BARS)	117.0	LF	80	20	17
632.32	RETROREFLECT. THERMOPLAS. PAVEMENT MARKING, SYMBOL OR WORD	230.0	SF	230	0	0
645.441	SEDIMENT FILTER LOGS (COMPOST SOCK)	300.0	LF	150	100	50
645.531	SILT FENCE	300.0	LF	150	100	50
645.533	INLET FILTER BASKET	29.0	EA	25	0	4
646.512	TURF ESTABLISHMENT WITH MULCH, TACKIFIERS, AND LOAM	7,150.0	SY	3000	3400	750
670.0661	REMOVE & RE-SET SINGLE OR DOUBLE MAILBOX ASSEMBLIES	4.0	EA	0	4	0
692.	MOBILIZATION	1.0	LS	0.5	0.4	0.1
900.1	REIN. CONC. PC-1 HEADWALL (12" TO 18" DIA. PIPE)	6.0	U	0	6	0
912.	R&R LANDSCAPING	1.0	LS	0.5	0.4	0.1
1010.2	ASPHALT CEMENT ADJUSTMENT (ALLOWANCE)	20,000.0	ALLOW	14000	4000	2000

Bid Quantity Summary by Location

Note: Quantities herein are provided solely to give the bidder an indication of how work is divided by road. The quantities and locations, however, are not necessarily intended to represent the final amounts to be utilized on each road.

Location
South Broadway

SCHEDULE B - ROADWAY IMPROVEMENTS		Total Est. Quant.	Unit	Est. Quant.
Item	Item Description			
202.7	REMOVAL OF GUARDRAIL	770.0	LF	770
203.1	COMMON EXCAVATION (WHERE DIRECTED)	480.0	CY	480
203.6	EMBANKMENT IN PLACE (WHERE DIRECTED)	50.0	CY	50
206.19	COMMON STRUCTURE EXCAVATION EXPLORATORY	50.0	CY	50
214.	FINE GRADING	1.0	U	1.0
304.4	CRUSHED STONE (FINE GRADATION)	86.0	CY	86
403.11A	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (BINDER MIX)	220.0	TON	220
403.11B	HOT BITUMINOUS PAVEMENT, MACHINE METHOD (WEARING MIX)	810.0	TON	810
403.12	HOT BITUMINOUS PAVEMENT, HAND METHOD	57.0	TON	57
417.	COLD PLANING BITUMINOUS SURFACES	7,800.0	SY	7800
603.83212	12" SMOOTH INTERIOR, DOUBLE WALL (TYPE S)	130.0	LF	130
603.83224	24" SMOOTH INTERIOR, DOUBLE WALL (TYPE S)	41.0	LF	41
604.0007	POLYETHYLENE LINER	6.0	EA	6
604.124	CATCH BASINS TYPE B, 4-FOOT DIAMETER	9.0	EA	9
604.324	DRAINAGE MANHOLE, 4-FOOT DIAMETER	2.0	EA	2
604.45	ADJUST CATCH BASIN GRATES & FRAMES	3.0	EA	3
604.5	ADJUST MANHOLE COVER & FRAME (SEWER OR DRAIN)	10.0	EA	10
605.82453	48" AGGREGATE UNDERDRAIN WITH 24" PERFORATED CPE	1,010.0	LF	1010
608.36	6" REINFORCED CONCRETE SIDEWALK	15.0	SY	15
608.54	DETECTABLE WARNING DEVICES, CAST IRON	1.0	SY	1
609.01	STRAIGHT GRANITE CURB	1,500.0	LF	1500
609.02	CURVED GRANITE CURB	200.0	LF	200
609.5	RESET GRANITE CURB	330.0	LF	330
618.6	UNIFORMED OFFICERS	20,000.0	ALLOW	20000
619.1	MAINTENANCE OF TRAFFIC	1.0	LS	1.0
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	20,600.0	LF	20600
632.3118	RETROREFLECTIVE THERMO. PAVE. MARKING, 18 IN (STOP BARS)	150.0	LF	150
632.32	RETROREFLECT. THERMOPLAS. PAVEMENT MARKING, SYMBOL OR WORD	1,100.0	SF	1100
645.441	SEDIMENT FILTER LOGS (COMPOST SOCK)	800.0	LF	800
645.531	SILT FENCE	800.0	LF	800
645.533	INLET FILTER BASKET	17.0	EA	17
646.512	TURF ESTABLISHMENT WITH MULCH, TACKIFIERS, AND LOAM (F)	2,100.0	SY	2100

SALEM MUNICIPAL SERVICES

Roy E. Sorenson - *Director*

www.townofsalemnh.org



ENGINEERING DIVISION

Daniel Hudson PE - *Director*

33 GEREMONTY DRIVE

SALEM, NH 03079

TEL: 603-890-2033 FAX: 603-898-1223

MEETING AGENDA

Date: January 12, 2021

From: James Danis, Engineering Dept

Subj: 2021 Road Program Pre-Bid Meeting
Manor Pkwy, Freedom Drive, Lemay Rd
Twinbrook Ave, Iris Ave
Henry Taylor, Old Farm, Smallbrook Lane

Introductions:

Salem Engineering Dept

• James Danis	- Town of Salem, Engineering Dept. - Project Lead
• Christine Wholley	- Purchasing Agent
• Brian Colburn	- McFarland Johnson
• Matt Moore	- McFarland Johnson

Project Location:

- Manor Parkway
 - Industrial park, intersects with Pelham Rd & Industrial Way
 - Access from Exit 2
- Freedom Dr
 - Veterans Memorial Pkwy
 - Access from Exit 1
- Lemay Rd
 - N. Main St below Bluff St intersection
 - Access Exit 2
- Twinbrook Ave/ Iris Ave
 - South end of town.
 - Behind Hampshire St intersect w/Oak Ridge.
 - Off Wheeler Ave
 - Access Exit 1
- Henry Taylor Street, Old Farm Rd
 - North end of Town.
 - Henry Taylor Intersects with E. Broadway.
 - Old Farm intersects w/ Haverhill Rd
 - Access Exit 2 or 3
- Bid Alternates
 - Manor Pkwy – None.
 - Bid Schedule B – Rte 28 drainage



- Twinbook/Iris – None
 - Bid Schedule B – Sewer
- Henry Taylor St – 2 Alternates
 - Alternate 1 – Wilson St
 - Alternate 2 – Frary St Edwards St (gravel road conversions)

Project descriptions:

- Manor Pkwy
 - 2,300 LF, 34-feet wide
 - Reclaim In place
 - Minimal drainage (2 new catch basins & 2 pipe replacements)
 - 5.5" Pavement section with bit curb
 - Shoulder work – associated with curb install
 - Traditional Subdivision w/ 60-foot ROW
 - No utility work proposed
 - Rt 28 Drainage (schedule B)
 - West side between Rockingham Blvd & Cluff Crossing Rd
 - Fill ditch w/ infiltration pipe
 - Granite curb both sides of road
 - Drain structures on west side connecting to infiltration
 - Gutter adjustment for new drainage
 - Mill/overlay
- Freedom Drive
 - 600 LF, 30-feet wide
 - Reclaim in-place (primary). Remove/rehandle pending field layout of grades.
 - Replace sidewalk
- Lemay Rd
 - 1,580 LF, 16-feet wide
 - Reclaim in-place (primary). Remove/rehandle pending field layout of grades.
 - Box widen, shape & Pave
 - Shoulder work
 - 3 culverts
 - Water line extension
- Neighborhood Rds.
 1. Henry Taylor St
 - 1,820 LF, 16-feet wide & 18-feet wide
 - Reclaim in place & Reclaim, Remove, Rehandle w/Stone
 - 1,850 LF Drainage, 19 structures (ledge possible)
 - One utility pole move at Wilson (not in the way of construction)
 - Wilson St – Alternate 1
 - Reclaim in-place and remove/rehandle
 - Minor drainage w/ possible cross country run
 - Modified cul-de-sac construction
 - Frary St & Edwards St – Alternate 2
 - Gravel road conversion

- Box widening, grade & Pave
- Drain connection and new outfall.
- One pole move.

2. Old Farm Rd & SmallBrook Lane

- 4,900 LF, 24-feet wide
- Reclaim in-place, some stone supplement
- $\frac{1}{2}$ mill & overlay
- 1,600 LF underdrain (beginning of old Farm) (ledge possible)
- 18" culvert replacement w/ headwalls
- 36" culvert w/ headwalls.
- Minor additional drainage

3. Twinbrook Ave & Iris Ave

- 1,750 LF, 20 & 24-feet wide
- Reclaim in-place
- Construct cul-de-sac on Iris
- Minor drainage improvements (Iris)
- 1,900 LF Underdrain (twinbrook). Minor ledge expected.
- Sewer Expansion (twinbrook)
- Water connection (Iris)

- Traditional Subdivision w/ 50-foot ROW (Old Farm, Twinbrook) , 40-foot ROW (Iris) , 20-foot ROW (Henry Taylor, Wilson, Frary, Edwards)
- Base line control – Survey layout and best fit combination

Utilities

- Water on Manor Parkway, Freedom, Lemay, Twinbrook, Iris
- Sewer on Manor Pkwy, Freedom, Twinbrook, Iris
- Gas on Manor Pkwy, Freedom
- Utility Poles (Manor Pkwy, Freedom, Lemay, Henry Taylor, Twinbrook, Iris)
 - Pole relocation on Henry Taylor & Frary
- Underground utilities (Old Farm Rd, Smallbrook Lane, Manor Pkwy)
 - No impact
- Impacts to existing utilities
 - Test pitting on Water main at crossings – redesign or relocation of proposed drain if conflicts
 - Test pitting on underground utilities adjacent to trenching activities.

Addendums

- Thursday/Friday this week all projects
- Manor Pkwy
 - New bid sheets – missing items, clarifications (gravel, crushed, crushed fine), temp pavement
 - Plans – No significant change – possible re-issue for clarifications – casting replacements
 - Rt 28 Drainage – to be added as Schedule B
- Freedom
 - Sidewalk prep part of new 3" bit sidewalk.

- Lemay
 - New plans – box widening clarifications
- Henry Taylor
 - Plans – pipe length classifications
 - New bid sheets – clarifications, additions
 - Alternate 2 - Box widening clarification on plans
- Old Farm
 - New bid sheets
- Twinbrook
 - 1.5" LPS in schedule should be 2" LPS.

Bids:

- **BIDS DUE**
 - Manor Pkwy, Freedom Dr, Lemay Rd – 1:00 PM, January 21, 2021
 - Neighborhood Roads – Henry Taylor, Old Farm – 1:00 -- PM, January 21, 2021
 - Neighborhood Roads Twinbrook Ave/Iris Ave – 1:00 PM, January 19, 2021
- Instructions to Bidders: **read it**
- Bid
- Qualifications & Subs
- Acknowledgement of Addendum #1 (and any others that may arise)
- Bid Bond – 5% of Contract
- Statement of non-collusion

Funding:

- Subject to Town vote in March
- Water & Sewer from different funding source

Required Documents for Winning Bidder

- Contract Award Status (NOA, NTP, Agreement)
- Performance, Payment, & Warrantee Bonds
- Insurance Certificates
- Contract Documents (3 copies)

Traffic Control

- Signage –Construction signage – minor in nature. No detours
- Police details – scheduling challenges
- Two way traffic during non-work hours

Permit

- NHDES Wetland permit
 - PBN permit for Old Farm Rd, Smallbrook Ln, Iris Ave

Construction Schedule

- Substantial Completion:
 - Manor Pkwy, Freedom Dr, Lemay Rd
 - **August 5, 2021**
 - Henry Taylor St, Old Farm Rd, Smallbrook Ln
 - **July 29, 2021**
 - Twinbrook Ave, Iris Ave
 - **July 15, 2021**
- Final Completion:
 - Manor Pkwy, Freedom Dr, Lemay Rd
 - **September 1, 2021**
 - Henry Taylor St, Old Farm Rd, Smallbrook Ln
 - **August 25, 2021**
 - Twinbrook Ave, Iris Ave
 - **August 11, 2021**
- Weekend/Holiday/night work - Not allowed

Submittals

- Shop Drawings
- Certificates of Compliance
- Cut sheets

Other Projects

- Tuscan Village
- Salem Depot Intersection
- Overlay Program (East Broadway)

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 401 – PLANT MIX PAVEMENTS - GENERAL

Construction Requirements

Amend 401.3.10.10 by **adding** the following after the last sentence:

“The top of manholes, catch basins, and other castings shall be sprayed with kerosene or other product before the paver passed over the casting. The top of the casting shall be clean of asphalt at the completion of paving.”

Amend 401.3.13.2 to Read:

3.13.2 The material being placed next to a previously paved lane shall be tightly crowded against the face of the abutting lane. The paver shall be positioned so that during spreading, the material will overlap the edge of the first lane by 1 to 2 in and shall be left sufficiently high to match the previously paved lane after compaction. The overlapped material shall be crowded to the joint with a lute prior to rolling. Longitudinal joint compaction shall be achieved by rolling from the hot side to within 6 in. of the previously placed material. The next roller pass will overlap onto the previously placed paved lane by 6 in. Further effort for compaction shall be applied to all joints during the intermediate and final rolling.

Amend 401.3.13.3 to Read:

3.13.3 Placing of the course shall be as continuous as possible, keeping the number of transverse joints at a minimum while still being able to make a hot longitudinal joint.

Amend 401.3.17.3.5.1 to Read as follows:

3.17.3.5.1 Cross slope will be measured as frequent as necessary by the Contractor and Engineer during all paving operations to ensure proper construction. Cross slope for the entire project will be evaluated at all 50-foot stations and through superelevation and superelevation transition sections. All paved areas within the project are subject to evaluation. The procedure for measuring the cross slope shall be by placing a 10-foot metal straight edge on the surface perpendicular to the traveled lane. A 4-foot direct reading level shall be placed on top of it. Percent cross slope shall be read and recorded. A second reading 180-degrees to the first shall be taken and recorded and the two shall be averaged for the test result.

Add Section 4.1.3

4.1.3 Based on NHDOT Bureau of Research and Materials average density factor for pavement shall be 0.057 Tons/SY-in. when calculating project yield and measuring for payment. The contractor shall not be afforded additional payment where specific gravity of stone is greater than the average.

Amend section 5.7 as follows:

5.7 Pavement Joint Adhesive shall be considered included in the price for hot bituminous pavement and no additional compensation will be granted.

SUPPLEMENTAL SPECIFICATION
AMENDMENT TO SECTION 603 – CULVERTS AND STORM DRAINS

Add section 603.2.13

2.13 Field cores into existing drain structures shall include necessary neoprene boot and hardware to install.

Add section 603.3.1.3.1

3.1.3.1 Refer to design drawings for installation. Where a conflict exists between Figure 1 and the design drawings the design drawings shall govern.

Add section 603.3.1.3.2

3.1.3.2 Delete subsidiary depth references from Figure 1.

Add section 603.3.11

3.11 Field cores into existing structures will be neatly cut with a circular hole saw. Use of a pipe saw, sledge hammer, jack hammer or other tools which cut a crude irregular shaped hole will not be allowed. Field cores shall be large enough to receive the new pipe and neoprene boot.

Replace Section 4.1.1 with the following:

4.1.1 No separate measurement will be made for elbows, bends, couplers, reducers or other methods of connection between pipes regardless of material type, size or material. This provision shall also apply to all connections whether pipe is new or existing.

Replace Section 4.3 with the following:

4.3 Video inspection will be measured by the day to the nearest $\frac{1}{2}$ day based on an 8 hour work day commencing from the actual start time on-site.

Add section 603.4.4

4.4 Field cores into existing structures shall not be measured for payment except where specifically provided for in the bid. Where cores are authorized for payment they shall be measured by the number of cores completed.

Add section 603.4.5

4.5 Relaying or replacement of existing pipe within a structure excavation necessary for connection to a new drainage structure shall not be measured for payment but shall

be considered incidental to the installation of a drainage structure except where specifically called out for payment.

Amend section 603.5.1 by **replacing** “specified in 206.4.1” in the first sentence with “required to complete the installation as indicated on the plans”

Eliminate section 5.1.2

Replace Section 5.1.3 with the following:

5.1.3 Granular backfill, when specified or ordered, will be subsidiary.

Delete section 603.5.3 and **replace** with:

5.3 “Where deficient work has been determined through video inspection, the Contractor shall absorb all costs associated with video inspection. Where work has been determined to be acceptable costs for video shall be paid at the Contract unit price per day and will include all required labor, equipment and materials.

Add section 603.5.3.1

5.3.1 Where an item does not exist for video inspection payment shall be in accordance with Section 109 based on Subcontractor invoicing or Contract labor hours and equipment rates.

Add section 603.5.3.2

5.3.2 No additional compensation shall be provided for video inspection where a pipe is currently in service.

Amend section 603.5.8.1 by **adding** “No additional compensation shall be provided where additional suitable material is located within the project work area.” after the last sentence.

Add section 603.5.9

5.9 Where specifically provided for in the Contract, field cores into existing structures of the size required for the pipe installed will be paid for at the Contract unit price for each field core, complete and in place inclusive of neoprene boot and all necessary hardware.

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 604 – CATCH BASINS, DROP INLETS, AND MANHOLES

Description

Add the following after the last sentence of section 1.2.

“It is intended that the new manhole frame and grate shall replace an existing frame and grate that is determined to be unusable by the Engineer.”

Materials

Amend 604.2.4 to read as follows:

2.4 All brick used for casting adjustment and invert tables shall be clay brick conforming to AASHTO M32 Grade SS. Maximum water absorption shall be 3%-4% during the five hour boil test. The use of concrete brick will not be permitted.

Amend 604.2.9 to read as follows:

2.9 Prefabricated adjustment rings are not allowed.

Add Section 604.2.11

2.11 Unless specifically provided for drain manhole frame/cover assembly shall be Neenah Foundry model #R-1743, catch basin frame/grate assembly shall be Neenah Foundry model #R-3570, and catch basin double frame/grate assembly shall be EJ model #0MA552000066. All catch basin frames (single and double) installed at granite curbing locations shall be 3-flanged. All catch basin frames (single and double) installed with no granite curbing shall be 4-flanged.

Add Section 604.2.12

2.12 Submittals shall be required for the following items:

- a. Shop drawing submittals shall be required for each individual catch basin and manhole. The submittal for each structure shall detail the following: the concrete structure including orientation of the cone section, pipe openings in the structure, and the frame and grate or cover orientation in relation to the concrete cone section.
- b. Shop drawing submittals shall be required for all brick used to adjust castings.
- c. Shop drawing submittals shall be required for mortar used in the setting of the castings or the parging of lifting holes.
- d. Shop drawing submittals shall be required for all adhesive and sealant used in the installation of the polyethylene liners.
- e. During the work of setting each new drainage structure or reconstructing existing

structures, the Contractor shall log the as-built location (station and offset) of the center of opening at each structure (cone or top slab opening applicable). The Contractor shall submit a complete list of as-built structures, with station and offset of opening at each structure, for review and approval of the Engineer a minimum of one (1) week prior to starting paving operations.

Construction Requirements

Amend 604.3.3 to Read:

3.3 When remodel/reconstruct or adjustment of existing structures is specified, the frames and grates or covers shall be removed and the walls reconstructed as required. Reconstruction of the walls shall mean replacing the top section, if necessary, adding riser sections, replacing riser sections, removing riser sections, or adding/removing rows of barrel block as required to meet the proposed grades. The frames and grates or covers shall be cleaned and reset at the required elevation. Non-serviceable and non-conforming castings shall be replaced as directed.

Amend 604.3.3.1 to Read:

3.3.1 The use of prefabricated adjustment rings will not be allowed.

Add Section 604.3.10

4.10 New frame & grates or frame & cover and frame adjustments shall include new red clay brick (subsidiary). Existing frame shall be cleaned prior to reset. Where elevation adjustment is specified the existing brick shall be inspected for serviceability. Unserviceable adjusting brick shall be replaced.

Add Section 604.3.10.1

3.10.1 Each brick for casting setting or adjustment is to be thoroughly wet just before laying and is to be completely embedded in mortar under its bottom, its side and its end at one operation. Care is to be taken to have every joint full of mortar and the outside is to be fully filled and the inside pointed. No brick work is to be laid in water and no water is to be allowed to rise on the work until it has set at least 24 hours. Do not plaster or mortar over brickwork inside the manholes.

Add Section 604.3.10.2

3.10.2 Frames for manhole covers shall be set flush with finish grade. Frames for catch basins shall be set $\frac{1}{2}$ -inch below finish grade. The Contractor shall ensure that the frame is set at the same cross slope and profile of the road. New pavement courses shall be luted around the rim to provide a smoothly transitioned depression.

Add Section 604.3.11

3.11 Structure change in type shall mean replacement of castings with the new type and construction of new brick inverts or removal of the existing inverts. Where reconstruction is

necessary (i.e. replacement of coats or flat tops and/or replacement of block or riser sections then that work shall be measured separately under its respective item number.

Add Section 3.12:

3.12 Annular space between boot connector and pipe shall be grouted with non-shrink mortar.

Add Section 3.13:

3.13 Inverts shall be constructed inside drain manholes and sewer manholes using brick specified in paragraph 2.4 above.

Method of Measurement

Amend 604.4.1 to Read:

4.1 Catch basins, drop inlets, and manholes will be measured by the number of units installed complete in place.

Amend 604.4.2 to Read:

4.2. Remodel/Reconstruction, adjusting, or change in type of catch basins, drop inlets, or manholes will be measured per structure reconstructed, adjusted, or changed type.

Add Section 4.6:

4.6 Relaying or replacement of existing pipe within a structure excavation necessary for connection to a new drainage structure shall not be measured for payment but shall be considered incidental to the installation of a drainage structure except where specifically called out for payment.

Amend 604 - Basis of Payment: **Delete** sections and **replace** with the following:

Basis of Payment

5.1 The accepted quantities of catch basins, drop inlets, and manholes, which includes the necessary frames and grates or covers with adjustment brick, of the type and diameter specified will be paid for at the Contract unit price per unit complete in place, including common structure excavation and setting to final grade, bedding, connection to existing pipes (inclusive of necessary reset or replacement), and backfill with the following stipulations:

5.1.1 Payment for structures indicated as "special" will be made by the complete unit of the depth shown on the plans. When an increase of 6-inches or greater is ordered from the depth shown, the unit depth will be adjusted in proportion that the constructed depth, measured to the nearest foot, bears to the depth shown on the plans. The proportion will be computed to no more than two decimal places.

5.1.2 All rock structure excavation and any excavation of unsuitable material outside the pay limit identified on the design drawings will be paid as provided in 206.

- 5.1.3** No extra allowance will be made for structures constructed in accordance with 3.4.
 - 5.1.4** Water repellent treatment for new drainage structures will be subsidiary.
- 5.2** The accepted quantities of remodel/reconstruct, and for adjustment of catch basins, drop inlets, or manholes will be paid for at the Contract price per each complete in place, including replacing the top section, removing, replacing/adding riser sections or barrel block, reinstalling and final adjustment of frames and grates or covers with necessary brick adjustment.
 - 5.2.1** Replacement of non-conforming or damaged frames, grates, and/or rims shall be paid under their respective item numbers where provided for.
 - 5.2.2** No payment will be made for reconstructing/adjusting portions of the above structures which are unnecessarily disturbed.
 - 5.2.3** No separate payment will be made for excavation and backfill for reconstructing/adjusting the above structures.
- 5.3** The accepted quantities of structure change in type will be paid for at the Contract price per each complete in place, including construction of new brick invert or removal of the existing invert and replacement of the existing casting with new type including final adjustment of frames and grates or covers with necessary brick adjustment.
 - 5.3.1** Necessary reconstruction as described in 3.3 above will be paid under its respective unit item at contract unit prices.
 - 5.3.2** No payment will be made for portions of the above structures which are unnecessarily disturbed.
 - 5.3.3** No separate payment will be made for excavation and backfill for the above structures.
- 5.4** The accepted quantities of frames and grates or manhole covers will be paid for at the Contract unit complete in place, including setting to final grade and necessary brick adjustment (new or existing).
 - 5.4.1** Removal and disposal of existing non-conforming or damaged units shall be subsidiary to this item.
 - 5.4.2** Pavement patch shall be paid under 403.12 where castings are raised to final grade in areas that have received base/binder course of pavement. Pay limit areas shall be measured as 1-foot outside the exposed edge of the rim minus the area of the casting.
- 5.5** Testing of sewer manholes required in 3.7 will be subsidiary.
- 5.6** The accepted quantities of polyethylene liner will be paid at the Contract unit price per each installed complete in place.

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 607 – FENCES

Replace section 5.2 with the following

5.2 Payment will be made for removing and resetting existing fence required under this contract on a linear foot basis. The Linear Foot Price for removing and resetting existing fence includes all labor, materials and equipment necessary for or incidental to the completion of the work to the satisfaction of the Engineer. Any materials damaged by the Contractor shall be replaced at no expense to the Owner.