

CITY OF AUBURN BID ADDENDUM

**ADDENDUM #1**

To Contract Documents For:

Auburn Industrial Park

City of Auburn Bid Number: 2013-041

Project Bid Date: July 25, 2013

EDA Award Number: 01-01-14171

Current Date: July 19, 2013

The attention of bidders submitting proposals for the work named in the above Invitation is called to the following modifications to the documents as were issued.

The items set forth herein, whether of clarification, omission, addition and/or substitution, shall be included and form a part of the Contractor's submitted material and the corresponding Contract when executed. No claim for additional compensation, due to lack of knowledge of the contents of this Addendum will be considered.

**ALL BIDDERS ARE ADVISED THAT RECEIPT OF THIS NOTICE MUST BE DULY ACKNOWLEDGED ON THE BID PROPOSAL FORM OR BY THE INSERTION OF THIS SHEET, SIGNED, AND SUBMITTED WITH YOUR PROPOSAL.**

.....  
By Order of  
The City of Auburn

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**NOTE: Questions and Answers are listed on the following pages.**

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Receipt of **Addendum No. 1** to the City of Auburn/Auburn Business Development Corp.'s **BID: AUBURN INDUSTRIAL PARK** is hereby acknowledged.

COMPANY: \_\_\_\_\_

NAME: \_\_\_\_\_

SIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

PRINT NAME & TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_ Zip Code

# CITY OF AUBURN, MAINE

## Auburn Industrial Park

### ADDENDUM No. 1

Addenda no. 1 hereby makes the following changes to the above mentioned Bid. Please make the following modifications to the Plans, Specifications, and Proposal Book:

1. The working hours for the project have been modified to Monday - Friday 7:00AM to 7:00PM, see revised No. 1 of the "Special Provisions".
2. The Auburn Police Department will not be required for traffic control on this project, as noted in No. 16 of the "Special Provisions".
3. Fees related to City of Auburn Permits will be waived for this project, see revised No. 20 in the "Special Provisions".
4. Warranty and Maintenance Bonds for this project will not be required by the City and Part 104.15 of Section 104 "General Rights and Responsibilities" has been deleted. See Section 104 of the "Supplemental Specifications".
5. In regards to a pavement price adjuster, see Section 108.4.1 of the MDOT Specifications. See revised Section 401 "Hot Mix Asphalt Pavements" of the "Supplemental Specifications".
6. MDOT Pavement Quality Level Analysis "Method B" shall be used for this project, see Section 401.202 of the MDOT Specifications. See revised Section 401 "Hot Mix Asphalt Pavements" of the "Supplemental Specifications".
7. Asphalt coatings will not be required on drainage structures as per the "Typical Drainage Structure" standard detail. See revised section 604 of the "Supplemental Specifications".
8. The thickness for loam on this project will be 4 inches as per the "Loam and Seed" standard detail, which takes precedence.
9. The filter media for the underdrain bench in the wet pond will meet MDOT Specification 703.22 "Underdrain Type B", as per the "Construction Section at Wet Pond" standard detail on sheet 12 of the plan set.
10. A revised list of pay items is included as part of this addendum. Explanations of the changes in the price list are described in nos. 11, 12, 13, 14, 15 & 16.
11. Item no. 3 "Common Borrow, for Wetland Fill - Plan Quantity" has been removed from the proposal, because it is redundant with Item no. 55 "Approved Wetland Impact Fills, Complete In-place". Please note that the bid item nos. in the proposal will be renumbered with the removal of item no. 3, so the item for "Approved Wetland Impact Fills, Complete In-place" has been changed to item no. 54.
12. "Plan Quantity" has been removed from the item descriptions for those items with a "Lump Sum" quantity. These are revised bid item nos. 2, 3, 5, 37 and 54.
13. An item to install one gate has been added as item no. 58 to the revised pay items. See the new "Gate Installation" section to be part of the Supplemental Specifications, which is included with this addendum.
14. An item to excavate for and backfill 3,400 LF of gas main has been added as item no. 59 to the revised pay items. A copy of Unitil's "Specifications for Trenching and Backfilling by Builder/ Developer is included with this addendum. See the new "Gas Main Installation and Backfill" section to be part of the Supplemental Specifications, which is included with this addendum.
15. The description of the revised pay item nos. 23 and 24 have been revised to "Install Catch Basin" for item no. 23 and to "Install Drain Manhole" for item no. 24, since there are

structures required for this project larger than 4 feet in diameter. All catch basins and drain structures will be paid under these respective items regardless of the diameter of the structure. See revised Section 604 of the "Supplemental Specifications".

16. Sheet no. 8 of the plan set shows the guardrail crossing the driveway for Lot 5. The guardrail will terminate on either side of the driveway and terminal ends – single rail will be installed at each point of termination. As a result of this change the quantities in item no. 29 "Guardrail Type 3b Single Rail" and item no. 30 "Terminal End – Single Rail" have been revised in the revised pay items.
17. All work on the project, except for the stream mitigation work, shall be completed by June 30, 2014. The stream mitigation work shall be completed by August 30, 2014. See revised no. 12 of the "Conditions and Instruction to Bidders" and Section 803 of the "Supplemental Specifications".
18. The stream mitigation work will be a design build based on the requirements of the MeDEP and USACOE permits. Copies of these permits are included with this addendum. The design will be submitted to the engineer and owner for review and approval. The person responsible for the design shall meet the "additional contractor responsibilities" as outlined in Section 803 "Stream Mitigation" of the "Supplemental Specifications". See revised Section 803 of the "Supplemental Specifications".
19. A revised "Typical Underground Cable Installation" standard detail is included with this addendum. This detail shall replace the "Typical Underground Cable Installation" detail shown on sheet 12 of the plan set.
20. The centerline curve data for curves C3 and C4 is as follows:

Curve	Length	Radius	Crd. Bearing	Crd. Dist.
C3	654.02'	2000.00'	S55°42'22"E	651.11'
C4	663.37'	2000.00'	S55°34'20"E	660.33'

## 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 Finance Director or her designate. The contract shall not be considered valid until a purchase order has been issued to the successful bidder.
10. Please state **"Auburn Industrial Park – Bid #2013-033"** 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 shall be completed by **June 30<sup>th</sup>, 2014, except for Stream Mitigation work, which shall be completed by August 30, 2014.** Liquidated damages of **\$500/calendar day** will be assessed on uncompleted work.
13. The City of Auburn will pay for police officers if they are required for traffic control.
14. Granite curbing shall be backfilled with a 1,500 psi concrete slurry to an elevation even with the top of the asphalt base course. Slurry material shall also be able to flow 3-4" under the curbing.

## Auburn Industrial Park

Bid Item	Spec. No. Pay Item	Quantity	Item with Unit Bid Price Written in Words	Unit Price In Figures	Amount In Figures
1	201.11	7 Per Acre	Clearing @ _____ _____ Per Acre	\$ _____	\$ _____
2	203.2001	Lump Sum	Common Excavation @ _____ _____ Per Lump Sum	\$ _____	\$ _____
3	203.241	Lump Sum	Common Borrow, for preload  @ _____ _____ Per Lump Sum	\$ _____	\$ _____
4	203.25	100* Cubic Yard	Granular Borrow, As Ordered by Resident @ _____ _____ Per Cubic Yard	\$ _____	\$ _____
5	203.26	Lump Sum	Gravel Borrow, for preload  @ _____ _____ Per Lump Sum	\$ _____	\$ _____
6	203.31	100* Cubic Yard	Crushed Stone (703.3 1 Type "A") (Overdepth or As Ordered by Resident) @ _____ _____ Per Cubic Yard	\$ _____	\$ _____
7	206.061	100* Cubic Yard	Structural Earth Excavation (Overdepth) @ _____ _____ Per Cubic Yard	\$ _____	\$ _____

8	206.07	150* Cubic Yard	Structural Rock Excavation @ _____ _____ _____ Per Cubic Yard	\$ _____	\$ _____
9	304.09	3360 Cubic Yard	Aggregate Base Course – Crushed, Type “A” @ _____ _____ _____ Per Cubic Yard	\$ _____	\$ _____
10	304.10	9900 Cubic Yard	Aggregate Subbase Course – Gravel, Type “D” Gravel @ _____ _____ _____ Per Cubic Yard	\$ _____	\$ _____
11	403.207	2,630 Ton	Hot Mix Asphalt 19.0mm @ _____ _____ _____ Per Ton	\$ _____	\$ _____
12	403.208	2,200 Ton	Hot Mix Asphalt 12.5mm @ _____ _____ _____ Per Ton	\$ _____	\$ _____
13	603.140	3400 Linear Foot	12-inch Diameter PVC Sanitary Sewer @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
14	603.145	350 Linear Foot	6-inch Diameter PVC Sanitary Sewer Laterals @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
15	603.158	220 Linear Foot	12-inch Diameter PVC or HDPE Storm Drain Pipe @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____

16	603.159	350 Linear Foot	12-inch Diameter PVC or HDPE Culvert Pipe @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
17	603.179	200 Linear Foot	18-inch Diameter HDPE Storm Drain Pipe @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
18	603.198	60 Linear Foot	24-inch Diameter HDPE Storm Drain Pipe @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
19	603.199	90 Linear Foot	24-inch Diameter RCP Storm Drain Pipe @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
20	603.199	160 Linear Foot	30-inch Diameter RCP Storm Drain Pipe @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
21	603.201	20 Linear Foot	36-inch Diameter RCP Storm Drain Pipe @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
22	603.30	200 Linear Foot	42-inch Diameter RCP Storm Drain Pipe @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
23	604.07	18 Each	Install Catch Basin @ _____ _____ _____ Per Each	\$ _____	\$ _____

24	604.15	2 Each	Install Drain Manhole @ _____ _____ _____ Per Each	\$ _____	\$ _____
25	604.151	12 Each	Install 4-foot Diameter Sanitary Manhole @ _____ _____ _____ Per Each	\$ _____	\$ _____
26	605.091	1300 Linear Foot	6-inch Diameter Underdrain @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
27	605.121	1820 Linear Foot	15-inch Diameter Underdrain @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
28	605.131	620 Linear Foot	18-inch Diameter Underdrain @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
29	606.152	2140 Linear Foot	Guardrail Type 3b single rail @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
30	606.265	18 Each	Terminal End-Single Rail @ _____ _____ _____ Per Each	\$ _____	\$ _____
31	609.11	50 Linear Foot	Install New 5-inch Vertical Granite Curb, Type 1 – Straight @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
32	609.12	600 Linear Foot	Install New 5-inch Vertical Granite Curb, Type 1 – Circular @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____

33	609.237	2 Each	Install New 5-inch – 7-foot Tipdown Curb, Type 1 @ _____ _____ _____ Per Each	\$ _____	\$ _____
34	609.261	16 Each	Transition Curb @ _____ _____ _____ Per Each	\$ _____	\$ _____
35	609.311	6000 Linear Foot	Bituminous Curb- Mold 2 @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
36	610.081	Lump Sum	Plain Riprap incl.Fabric and Bedding @ _____ _____ _____ Per Lump Sum	\$ _____	\$ _____
37	613.320	Lump Sum	Erosion Control Blanket @ _____ _____ _____ Per Lump Sum	\$ _____	\$ _____
38	615.071	Lump Sum	Loam, Seed & Mulch @ _____ _____ _____ Per Lump Sum	\$ _____	\$ _____
39	627.711	9600 Linear Foot	White or Yellow Pavement Marking Line-Plan Quantity @ _____ _____ _____ Per Linear Foot	\$ _____	\$ _____
40	627.75	40 Square Foot	White or Yellow & Curb Marking @ _____ _____ _____ 40 Square Foot	\$ _____	\$ _____
41	629.05	10* Hour	Hand Labor, Straight Time @ _____ _____ _____ Per Hour	\$ _____	\$ _____

42	629.06	10* Hour	Mason, Straight Time @ _____ _____ _____ Per Hour	\$ _____	\$ _____
43	631.105	10* Hour	Air Tool and Compressor, Including Operator @ _____ _____ _____ Per Hour	\$ _____	\$ _____
44	631.12	10* Hour	All Purpose Excavator, Including Operator @ _____ _____ _____ Per Hour	\$ _____	\$ _____
45	631.13	10* Hour	Bulldozer, Including Operator @ _____ _____ _____ Per Hour	\$ _____	\$ _____
46	631.171	10* Hour	Truck, Small, Including Operator @ _____ _____ _____ Per Hour	\$ _____	\$ _____
47	631.22	10* Hour	Front End Loader, Including Operator @ _____ _____ _____ Per Hour	\$ _____	\$ _____
48	631.36	10* Hour	Foreman, Straight Time @ _____ _____ _____ Per Hour	\$ _____	\$ _____
49	652.39	Lump Sum	Work Zone Traffic Control @ _____ _____ _____ Per Lump Sum	\$ _____	\$ _____
50	653.22	300 Square Yard	Polystyrene Plastic Insulation @ _____ _____ _____ Per Square Yard	\$ _____	\$ _____

51	656.75	Lump Sum	Temporary Soil Erosion and Water Pollution Control @ _____ _____ _____ Per Lump Sum	\$ _____	\$ _____
52	659.1	Lump Sum	Mobilization Part 1 Not to exceed 2.5% of Part 1 @ _____ _____ Per Lump Sum	\$ _____	\$ _____
53	800.01	Lump Sum	Wet-pond complete In-place @ _____ _____ Lump Sum	\$ _____	\$ _____
54	801.03	Lump Sum	Approved Wetland Impact Fills, Complete In-place @ _____ _____ Lump Sum	\$ _____	\$ _____
55	803.03	Lump Sum	Stream Mitigation @ _____ _____ Lump Sum	\$ _____	\$ _____
56	804.03	Lump Sum	EDA Project Sign @ _____ _____ Lump Sum	\$ _____	\$ _____
57	805.03	150 Linear Foot	Underground Conduit Installation @ _____ _____ Per Linear Foot	\$ _____	\$ _____
58	GAS	3400 Linear Foot	Gas Main Excavation and Backfill @ _____ _____ Linear Foot		
59	GATE	Lump Sum	Gate Installation @ _____ _____ Lump Sum		

W-1		3400 Linear Feet	12-inch Ductile Iron Water Main @ _____ _____ _____ Per Linear Foot	\$ _____ -	\$ _____ -
W-2		3400 Linear Feet	2-inch Water Main and Gate Valves @ _____ _____ _____ Per Linear Foot	\$ _____ -	\$ _____ -
W-3		300 Linear Feet	6-inch Ductile Iron Service Stubs @ _____ _____ _____ Per Each	\$ _____ -	\$ _____ -
W-4		300 Linear Feet	2-inch Service Stubs w/curb stops @ _____ _____ _____ Per Each	\$ _____ -	\$ _____ -
W-5		5 Each	Hydrant Assembly, Inc fitting, gate valve, and connecting pipe @ _____ _____ _____ Per Each	\$ _____ -	\$ _____ -
W-6		3 Each	12-inch Gate Valve @ _____ _____ _____ Per Each	\$ _____ -	\$ _____ -
W-7		8 Each	6-inch Gate Valve @ _____ _____ _____ Per Each	\$ _____ -	\$ _____ -
W-8		1 Each	12" x 12" Tapping Sleeve & Gate Valve @ _____ _____ _____ Per Each	\$ _____ -	\$ _____ -

Total Unit Prices	@ _____	\$ _____
	Total Unit Price Costs	-

51	656.75	Lump Sum	Temporary Soil Erosion and Water Pollution Control @ _____ _____ _____ Per Lump Sum	\$ _____	\$ _____
52	659.1	Lump Sum	Mobilization Part 1 Not to exceed 2.5% of Part 1 @ _____ _____ Per Lump Sum	\$ _____	\$ _____
53	800.01	Lump Sum	Wet-pond complete In-place @ _____ _____ Lump Sum	\$ _____	\$ _____
54	801.03	Lump Sum	Approved Wetland Impact Fills, Complete In-place @ _____ _____ Lump Sum	\$ _____	\$ _____
55	803.03	Lump Sum	Stream Mitigation @ _____ _____ Lump Sum	\$ _____	\$ _____
56	804.03	Lump Sum	EDA Project Sign @ _____ _____ Lump Sum	\$ _____	\$ _____
57	805.03	150 Linear Foot	Underground Conduit Installation @ _____ _____ Per Linear Foot	\$ _____	\$ _____
58	GAS	3400 Linear Foot	Gas Main Excavation and Backfill @ _____ _____ Linear Foot	\$ _____	\$ _____
59	GATE	Lump Sum	Gate Installation @ _____ _____ Lump Sum	\$ _____	\$ _____

## SPECIAL PROVISIONS

The following Supplemental Specifications and Special Provisions shall amend the "State of Maine, Department of Transportation, Standard Specifications, Revision of December, 2002," and the latest revision of the MDOT Supplemental Specifications. In case of conflicts, these Supplemental Specifications (1) and Special Provisions (2) shall take precedence and shall govern.

- (1) Supplemental Specifications – modifications, additions and deletions to the existing Standard Specifications.
- (2) Special Provisions – specifications in the contract which are for additional items not covered in the Standard Specifications.

### 1. Working Hours

Hours of operation: Monday – Friday, 7:00 A.M. to 7:00 P.M.-No work or site activity shall begin prior to 7:00A.M. No Sunday or Major Holiday work will be allowed

The definition of work for this specification shall include the starting or moving of equipment, machinery, or materials. Any day worked for four hours or more shall be considered a full working day.

### 2. Utility Coordination

The project includes construction in close proximity to utility services. The Contractor will be responsible for notifying utility representatives of the anticipated construction schedule. The Contractor will be responsible for all utility coordination, protection of existing infrastructure and any damages to existing utilities as a result of the work at no additional cost to the City.

### 3. Notification of Residents

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

### 4. Traffic Signs

All existing traffic signs which are to be removed during construction shall be carefully dismantled and the posts removed and shall be stacked in an area approved by the Engineer. The 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 of the work.

Prior to the start of any construction work, the Contractor and City shall prepare a mutually 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. The signs shall be inventoried by station location and approximate offset, legend of sign and post. This work shall be considered as subsidiary obligation of the contract for which no specific payment will be made.

### 5. Protection of Trees

The Contractor shall be responsible for the preservation of all trees on the project which are not called to be removed. Any trees damaged by the Contractor's operations shall be repaired using approved tree dressing or paint in accordance with the appropriate provisions of Section 201 of the Standard Specifications. The contractor shall be responsible for all costs for damaged trees and shall not be entitled to payment or compenstation.

14. Setting of Pipes to Line and Grade

If laser beam equipment is used for laying storm drain and/or sanitary sewer pipe, frequent checks shall be made to assure close adherence to line and grade. If lasers are not used, batter boards are to be set at maximum twenty-five foot (25') intervals and grades transferred to the boards with a transit, level, or line level. Setting pipes to grade by use of "pop" levels or carpenter levels will not be permitted.

15. Extent of Open Excavation

The extent of excavation open at any one time shall be controlled by OSHA regulations and by existing conditions and location of work area.

16. Traffic Officers

The City will not provide traffic officers for this project. The contractor shall employ flaggers and shall be responsible for all traffic maintenance.

17. 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. He 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.

The Contractor shall be required to construct his roadway subbase concurrent to his trench backfilling operation.

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 Supplemental Specifications.

18. Dust Control For Street

Calcium chloride shall be spread only on disturbed unpaved areas. Calcium chloride shall not be spread on paved areas that are covered by granular material. These areas shall be swept clean of all granular material. Dust on paved areas shall be controlled with water before sweeping.

19. Trench Pavement Replacement

The Contractor shall be responsible for repairing any trench pavement that has experienced excess settlement, cracking or opening of pavement joints. Repair may include overlay, removal of unacceptable material and complete replacement, joint sealing or recutting pavement as required. This work may be necessary after final acceptance of the work and prior to expiration of the maintenance bond. This work shall be done at no additional cost to the City.

20. City of Auburn's Street Excavation and other Permits

The Contractor shall be responsible for obtaining and completing the Street Opening Application through the public works office. The contractor will not be obligated to pay all fees and provide a bond. Fees will be waived for other permits required to be obtained from the City of Auburn for this project.

21. Questions Regarding Plan and Documents

Questions from prospective bidders relative to this Contract shall be directed to:

Submit technical questions in writing to the attention of: Chris Branch P. E. @ 207 200-2126, e-mail: cbranch@sebagotechnics.com no later than 5 business days before the scheduled bid opening.

Questions received after this time will not be addressed. Responses from the City that substantially alter this bid will be issued in the form of a written addendum to all bid holders

## SECTION 104

### GENERAL RIGHTS AND RESPONSIBILITIES

#### Scope of Section

This Section sets forth certain rights and responsibilities of the Department and the Contractor that are generally applicable to all contracts. This Section is not all inclusive and additional rights and responsibilities are set forth elsewhere in the Contract.

#### 104.2.3 Authority of Project Manager and Resident

This subsection shall be amended by the addition of the following paragraph: The Resident Engineer or Resident Inspector will not be responsible for nor issue directions regarding the Contractor's safety precautions or programs; nor will they issue directions relative to, or assume control over any aspect of the methods, techniques or procedures of construction.

#### 104.4.6 Utility coordination

A Pre-construction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications is not required.

#### AERIAL

No Aerial Utility adjustments are anticipated as part of this project. All above ground utility locations (hydrants, poles, guys, etc.) will be reviewed for compliance with the Department's Above Ground Pole Policy following the completion of the paving operation. Any above ground utility locations not meeting the Department's Above Ground Pole Policy will require relocation to the proper offset.

#### SUBSURFACE

Communication Companies may have buried cables within the project limits. These cables should not have any impact to construction because of the scope of work. If this scope changes in any way the Contractor shall notify the Communication Companies at least five (5) days prior to any excavating operations to allow the utility to determine the cable locations in that area. Any damage to the buried cable caused by the Contractor during construction shall be repaired at the contractor's expense.

#### GAS MAINS

No know gas mains are located within the project limits.

#### UTILITY SIGNING

Any utility working within the construction limits of this project shall ensure that the traveling public is adequately protected at all times. All work areas shall be signed, lighted, and traffic flaggers employed as determined by field conditions. All traffic controls shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, as issued by the Federal Highway Administration.

#### SAFE PRACTICES AROUND UTILITY FACILITIES

The Contractor shall be responsible for complying with M.R.S.A. Title 35-A, Chapter 7-A Sections 751 - 761 Overhead High-Voltage Line Safety Act. Prior to commencing any work that may come within ten (10) feet of any aerial electrical line; the Contractor shall notify the aerial utilities as per Section 757 of the above act.

DIG SAFE

The Contractor shall be responsible for determining the presence of underground utility facilities prior to commencing any excavation work and shall notify utilities of proposed excavation in accordance with M.R.S.A. Title 23 §3360-A, Maine "Dig Safe" System.

MAINTAINING UTILITY LOCATION MARKINGS

The Contractor will be responsible for maintaining the buried utility location markings following the initial locating by the appropriate utility or their designated representative.

Refer to Project Directory of Contacts

104.5.10 Warranty and Maintenance Bonds

DELETED

## SECTION 401

### HOT MIX ASPHALT PAVEMENTS

The provisions of MDOT Special Provision Division 400 Pavements, Section 401 Hot Mix Asphalt Pavement, dated March 10, 2010, shall apply with the following additions and modifications:

#### 401.11 Preparation of Existing Surface

Add the following paragraphs.

Where pavement placed under this Contract joins an existing pavement, the existing pavement, when directed by the Engineer, shall be removed a minimum of 1' wide and 1-½" deep in order to provide a vertical butt joint. The butt joint shall also be tack coated.

All vertical cuts in existing pavements shall be treated with an approved asphaltic tack coat material. The surface of the joint once completed shall be flush with the existing pavement.

All work necessary for the construction of this joint shall be considered incidental to the related job items. Vertical joints in HMA 19.0 MM and HMA 12.5 MM shall be offset from each other horizontally by at least one foot (1').

All work under this section shall be considered incidental to this Contract.

#### 401.202 Method " B"

The Pavement Quality Level Analysis for this project shall be " Method B" .

**Section 108.4.1 of the MDOT Specifications "Price Adjustments for Hot Mixed Asphalt" shall apply to this project.**

## 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

This work shall consist of the construction, alteration, repair, or placement of manholes, inlets, and catch basins including covers, frames brick masonry, inverts and the application of waterproofing in conformance with the dimensions elevations and locations shown on the plans and specified herein.

604.02      Materials

This section shall be revised to read as follows:

Materials shall meet the requirements specified for the various subsections of the specifications and listed below:

604.021 Precast Concrete Manholes: Precast Manholes and Catch basins shall meet the requirements of Standard Specifications Section 604.02 with the additions and modifications.

604.0211 Quality Assurance:

A.      Precast Manhole Basin Base, Barrel and Top Sections:

1.      Conform to ASTM C478-97.
2.      Average strength of 4,000 psi at 28 days.
3.      Testing:
  - a. Determine concrete strength by tests on 6 inch by 12 in vibrated test cylinders cured in the same manner as the bases, barrels and tops.
  - b. Have tests conducted at manufacturer's plant or at an approved testing laboratory.
  - c. Have not less than 2 tests made for each 100 vertical feet of precast catch basin sections.

B.      Precast Catch Basin Base, Barrel and Top Sections:

1.      Conform to ASTM C478-72 (AASHTO M199-795) except as modified herein or as directed by the Engineer.
2.      Average strength of 4,000 psi at 28 days.
3.      Testing:
  - a. Determine concrete strength by tests on 6 inch by 12 in vibrated test cylinders cured in the same manner as the bases, barrels and tops.

- b. Have tests conducted at manufacturer's plant or at an approved testing laboratory.
  - c. Have not less than 2 tests made for each 100 vertical feet of precast catch basin sections.
- C. Drain Manhole Frames and Covers:
- 1. Manhole Covers: Acceptable Manufacturers:
    - a. East Jordan Iron Works: Type 1177, Round.
    - b. Approved equals.
  - 2. Dimensions and Style shall conform to the Drawings, Standard castings
    - a. Covers - solid with sewer in 3-inch letters diamond pattern.
    - b. Frame - 24-inch diameter clear opening, with flange bracing ribs.
    - c. Minimum weight of frame and cover shall be 430 lbs
  - 3. Made of cast iron conforming to ASTM A48-76, Class 30 minimum and shall have machined bearing surfaces to prevent rocking.
  - 4. Castings shall be smooth with no sharp edges.
  - 5. Constructed to support an HS-20 wheel loading.
- D. Catch Basin Frames and Covers
- 1. Acceptable Manufacturers:
    - i. East Jordan Iron Works: Type 1177
  - 2. Made of cast iron conforming to ASTM A48-76, Class 30 minimum and shall have machined bearing surfaces to prevent rocking.
  - 3. Castings shall be smooth with no sharp edges.
  - 4. Constructed to support an HS-20 wheel loading.
- E. Masonry:
- 1. Brick: Shall comply with ASTM Standard Specifications for Sewer Brick (made from clay or shale), Designation C32, for Grade SS, hard brick.
  - 2. Cement: ASTM C-150.
  - 3. Hydrated Lime: ASTM C-207.
  - 4. Sand: ASTM C33.
- F. Manhole Waterproofing:
- 1. Acceptable Manufacturers:
    - a. Minwax Fibrous Brush Coat, Minwax Co., N.Y., N.Y.
    - b. Tremco 121 Foundation Coating, Tremco Mfg. Co., Newark, N.J.
    - c. Or equal.

604.0212 Products

- A. Dimensions: Dimensions, shall be as shown on the Drawings:
- 1. Base & Riser Sections:
    - a. Diameter: As shown on the Drawings.
    - b. Length: As required.
    - c. Wall Thickness: Not less than 5 inches.
    - d. Joints: Bell-and-spigot or tongue-and-groove formed on machine rings to insure accurate joint surfaces.
  - 2. Tops:

- a. Diameter: Eccentric cone type, 24 inches I.D. at top, 48 inches I.D. at bottom unless otherwise shown on the Drawings.
  - b. Length: 4 feet.
  - c. Wall thickness: Not less than 5 inches at the base, tapering to not less than 8 inches at the top.
  - d. Joints: Bell-and-spigot or tongue-and-groove formed on machine rings to insure accurate joint surfaces.
  - e. Exterior face of cone sections shall not flare out beyond the vertical.
3. Flat Slab Tops:
- a. Location: Where shallow installations do not permit the use of a cone-type top and where indicated on the Drawings. Exterior face of cone sections shall not flare out beyond the vertical.
  - b. Slab thickness: Not less than 6 inches.
  - c. Constructed to support an HS-20 wheel loading.
- B. Precast Catch Basin Sections
- 1. Use flat tops or eccentric cones as appropriate. Exterior face of cone sections shall not flare out beyond the vertical.
  - 2. Joints: Bell-and-Spigot or tongue-and-groove formed on machine rings to insure accurate joint surfaces.
  - 3. Constructed to support an HS-20 wheel loading.
  - 4. The base section shall have a 2-foot minimum and 3-foot maximum sump.
- C. Precast Catch Openings:
- 1. Provide openings in the risers to receive pipes entering the catch basin of the types and materials shown on the plans.
  - 3. Make openings at the manufacturing plant or cut openings in the field.
  - 4. Provide flexible boot or solidly fill annular spaces around pipes entering the catch basin with non-shrink grout or other material approved by the City engineer.
  - 5. Size: To provide a uniform annular space between the outside wall of pipe and the riser.
  - 6. Location: To permit setting of the entering pipes at the correct elevations.
- D. Drain Manhole Openings:
- 1. Provide openings in the risers to receive pipes entering the structure.
  - 2. Make openings at the manufacturing plant.
  - 3. Size: To provide a uniform annular space between the outside wall of pipe and riser.
  - 4. Location: To permit setting of the entering pipes at the correct elevations.
  - 5. Openings shall have a flexible watertight union between pipe and the manhole base.
    - a. Cast into the manhole base and sized to the type of pipe being used.

b. Type of flexible joint being used shall be approved by the Engineer. Install materials according to the Manufacturer's instructions.

1. Lock Joint Flexible Manhole Sleeve made by Interpace Corporation.
2. Kor N Seal made by National Pollution Control System, Inc.
3. Press Wedge II made by Press-Seal Gasket Corporation.
4. A-Lok Manhole Pipe Seal made by A-Loc Corporation.
5. Or equivalent.

E. Joints:

1. Joint gaskets to be flexible self seating butyl rubber joint sealant installed according to manufacturer's recommendations. Install a double row of joint sealants for every manhole joint. For cold weather applications, use adhesive with joint sealant as recommended by manufacturer. Acceptable Materials:
  - a. Kent-Seal No. 2
  - b. Ram-Nek
  - c. Or equivalent.
2. Joints between precast sections shall conform to related standards and manufacturer's instructions.

F. Manhole Waterproofing:

1. The exterior surface of all sanitary manholes shall be given two coats of bituminous waterproofing material at an application rate of 75 to 100 square feet per gallon, per coat. Not required on storm manholes.
2. The coating shall be applied after the manholes have cured adequately and can be applied by brush or spray in accordance with the manufacturer's written instruction.
3. Sufficient time shall be allowed between coats to permit sufficient drying so that the application of the second coat has no effect on the first coat.

G. Masonry

1. Brick:
  - a. Sound, hard, uniformly burned, regular and uniform in shape and size, compact texture, and satisfactory to the Engineer.
  - b. Immediately remove rejected brick from the work.
    1. Adjust frame to grade with bricks laid flat with minimum of 2 course and a maximum of 5 courses. Contractor shall provide sufficient brick courses to allow frames to be adjusted to the future road profile grades shown on the plans.
2. Mortar:
  - a. Composition (by volume):
    1. 1 part portland cement.
    2. 1/2 part hydrated lime.
    3. 4-1/2 parts sand.
  - b. The proportion of cement to lime may vary from 1:1/4 for hard brick to 1:3/4 for softer brick, but in no case shall the volume of

- sand exceed 3 times the sum of the volume of cement and lime.
- 3. Cement shall be Type II portland cement.
- 4. Hydrated lime shall be Type S.
- 5. Sand:
  - a. Shall consist of inert natural sand.
  - b. Grading:

<u>Sieve</u>	<u>Percent</u>
3/8-inch	100
No. 4	95-100
No. 8	80-100
No. 16	50-85
No. 50	10-30
No. 100	2-10
Fineness Modulus	2.3 - 3.1

604.03 Construction Requirements

This section shall be revised to read as follows:

A. Performance

- 1. Precast Manhole and Catch Basin Sections:
  - a. Perform jointing in accordance with manufacturer's recommendations and as specified or approved by the Engineer.
  - b. Install barrels and tops level and plumb.
  - c. Make all joints water tight. Apply two rows of joint gasket material per barrel joint.
  - d. Cut openings (as required) carefully to prevent damage to barrel sections and tops. Damaged barrel sections and tops shall be replaced by the Contractor at no additional expense to the City.
  - e. For cold weather applications, install joint sealant per manufacturer's recommendations.
  - f. Install manhole barrel sections and top so that the steps are in alignment.
- 2. Manhole Invert Channels
  - a. Smooth and semicircular in shape.
  - b. Make changes in direction of flow with smooth curves having a radius as large as permitted by the size of the manhole.
  - c. Stop the pipes at the inside face of the manhole where changes of direction occur.
  - d. Form invert channels and shelf with brick. Fill the void area for constructing the brick shelf with mortar. Stone, gravel, or other material will not be permitted to fill the void area for constructing the brick shelf.
  - e. Shape invert to make smooth transition in vertical grade.
  - f. Slope brick shelf towards the flow channel.
- 3. Masonry:
  - a. Laying Brick:

- i. Use only clean bricks in brickwork for manholes and catch basins.
    - ii. Moisten the brick by suitable means until they are neither so dry as to absorb water from the mortar or so wet as to be slippery when laid.
    - iii. Lay each brick in a full bed and joint of mortar without requiring subsequent grouting, flushing, or filling, and thoroughly bond as directed.
    - iv. Construct all joints in a neat workmanlike manner, construct the brick surfaces inside the manholes so they are smooth with no mortar extending beyond the bricks and no voids in the joints. Maximum mortar joints shall be ½ inch.
  - b. Curing:
    - i. Protect brick masonry from drying too rapidly by using burlaps which are kept moist, or by other approved means.
    - ii. Protect brick masonry from the weather and frost as required.
- 4. Frames and Grates:
  - a. Set all frames in a full bed of mortar, true to grade and concentric with the catch basin opening.
  - b. Completely fill all voids beneath the bottom flange to make a watertight fit.
  - c. Place a ring of mortar at least one inch thick around the outside of the bottom flange, extending to the outer edge of the catch basin all around its circumference.
  - d. Clean the frame seats before setting the covers in place.
- 5. Plugging and Patching
  - a. Fill all exterior cavities with non-shrink grout and with bituminous waterproofing once the concrete and mortar has set.
  - b. Touch up damaged water proofing.
- 6. Bedding and Backfill:
  - a. Bedding material of manholes and catch basins shall be a minimum of 6 inches of crushed stone.
  - b. Crushed Stone: Shall be a uniform material consisting of clean, hard, and durable particles or fragments, free from vegetable or other objectionable matter, containing angular pieces, as are those which come from a mechanical crusher. Gradation requirements shall be as follows:

<u>Sieve</u>	<u>Percent Passing</u>
2 inch	100
1½ inch	95-100
¾ inch	35-70
⅜ inch	10-30
No. 4	0-5

- c. Backfill 18 inches all around manholes and catch basins with select fill.

- d. Select Fill: Shall consist of well graded granular material free of organic material, loam, wood, trash, snow, ice, frozen soil and other objectionable material and having no rocks with a maximum dimension of over 4 inches and meeting the following gradation requirements:

<u>Sieve</u>	<u>Percent Passing</u>
4 inch	100
3 inch	90-100
No. 4	20-55
No. 40	5-40
No. 200	0-8

Concrete Blocks shall not be used in any way in the construction or alteration modifications of manholes or catch basins.

All manhole bases, barrel sections and top sections shall be marked, by the manufacturer, with the appropriate manhole station (and offset if applicable) and the street name, if more than one street is incorporated within a single contract.

Special precautions shall be taken to provide adequate ventilation and attending personnel for the safety of all workers who may be required to enter existing sewers or sewers under construction.

It is emphasized to the Contractor that sanitary sewer and drainage construction under this contract shall be coordinated with existing sewer facilities so that continuous service and handling of existing flows is accomplished.

In the existing fifth paragraph, first sentence of that Subsection delete only "Metal frames and traps", and substitute therefore "Metal frames, steps, other appurtenances, and traps".

Catch basins shall be constructed as shown on the contract drawings. Unless otherwise indicated, catch basins shall have A-4 inlet stones which shall be incidental to the contract unit price of the structure.

After the manhole has been assembled in place, all lifting holes and all exterior joints shall be filled and pointed with an approved non-shrinking grout or approved bituminous mastic as shown on the construction drawings.

#### 604.05 Method of Measurement

Under this subsection the following sections shall be amended as follows:

1. Subsection (a) of the Standard Specifications shall be deleted and the following paragraph shall be included:
  - a. Complete structures. Each catch basin and manhole will be measured per each complete.

- b. Subsections (c),(d) and (e) of the Standard Specifications shall be deleted.
- c. Each existing drainage structure to be abandoned or removed will be incidental to the installation of new drainage structures.
- d. Each existing drainage structure to be removed and replaced with a new drainage structure will be considered as one unit, including inlet stone, pipe elbows or hoods where indicated, tipdowns, frame, grate, adjustment to grade, connection of underdrain to basin and installation of new inlet/outlet.

604.06 Basis of Payment

The following paragraphs shall be added:

The cost of excavation and backfill of all catch basins or manholes, either new, abandoned, or removed and/or replaced shall be included in the cost of the specific work for each type of structure.

The cost of maintaining flows in existing sewer lines and manholes and any maintenance and cleaning of said sewers that may be required as a result of new manhole installations shall be incidental to the related pay item and no separate payment for this work will be made.

<u>Pay Item</u>	Payment will be made under:	<u>Pay Unit</u>
604.07	Install Catch Basin	Each
604.15	Install Drain Manhole	Each
604.151	Install 4 Foot Diameter Sewer Manhole	Each

## SECTION 803

### Stream Mitigation

#### 803.01 Description

The contractor shall mitigate the stream as described in Attachment " F" .

#### Additional Contractor Requirements:

- The Contractor shall be a Certified Contractor through the Maine Nonpoint Source Training and Resource Center.
- The Contractor shall have a minimum of 24 hours of training in Stream and Riparian Rehabilitation (list training provider).
- The Contractor shall have a minimum of 4 hours of Stream Habitat Improvement (list training provider).
- The Contractor shall have wetland delineation, wetland functional assessment and stream assessment capabilities.
- The contractor shall submit demonstrated experience with compensatory mitigation design and implementation involving creation, restoration, rehabilitation, enhancement, assessment and monitoring of wetlands, uplands, streams and vernal pools. The submittal shall include a description of the work, location of the work and who the work was done for.

#### Supplemental Stream Specifications:

- Prior to construction, all wetland and stream buffer areas shall be permanently marked in the field.
- Compensatory mitigation shall be initiated not later than 90 days after the project initiation with consideration for regulated restrictions for in stream work and completed not later than one year after the permitted wetland impacts unless the Corp-approved mitigation plan specifically states otherwise and compensation for the temporal impacts are appropriate.
- All work adjacent to the streams shall be done with Low Ground Pressure Equipment to minimize soil compaction and minimize overall disturbance.
- All work shall be done in compliance with MeDEP and USACOE permits issued for this project and all applicable laws, rules, and regulations.
- Stream mitigation work within the stream must take place between July 15<sup>th</sup> and September 30<sup>th</sup>.

The stream mitigation work will be a design build based on the requirements of the MeDEP and USACOE permits. The design will be submitted to the engineer and owner for review and approval. The person responsible for the design shall meet the "additional contractor responsibilities" as outlined above".

The stream mitigation work shall be completed by August 30, 2014.

803.02 Basis of Payment

The wetland fills will be paid for at the Contractor's Lump Sum price. Such payment will be full compensation for mitigating stream as shown on Attachment F

<u>Pay Item</u>	Payment will be made under:	<u>Pay Unit</u>
809.03	Stream Mitigation	Lump Sum

## GAS MAIN INSTALLATION AND BACKFILL

### Description

This work shall involve the excavation and backfill for a gas main to be installed by Unitil. See the "Unitil Specifications for Trenching and Backfilling By Builder/Developer" requirements of the work.

### Basis of Payment

The excavation for and the backfill of the gas main will be paid at the Contractor's linear foot price. Such payment will be full compensation for all work required for this item.

Payment will be made under:

### Pay Item

### Pay Unit

Gas Main      Excavation and Backfill

Linear Foot

## GATE INSTALLATION

### Description

This work shall involve the installation of a gate as shown in the "Typical Gate Detail" on sheet 12 of the plan set, except the Schedule 40 PVC pipe will be replaced with Galvanized Steel Pipe.

### Basis of Payment

The installation of the gate shall be at the contractor's lump sum price. Such payment will be full compensation for furnishing, fabrication and installation of the gate. Such payment will be full compensation for all work required for this item.

Payment will be made under:

### Pay Item

### Pay Unit

Gate

Installation of Gate

Lump Sum

MATCH PROPOSED PAVEMENT,  
STRUCTURE OR LOAM AND SEED  
AS REQUIRED

PLASTIC MARKER TAPE PLACED  
IN CENTER OF TRENCH  
APPROXIMATELY 12" BELOW  
FINISH GRADE

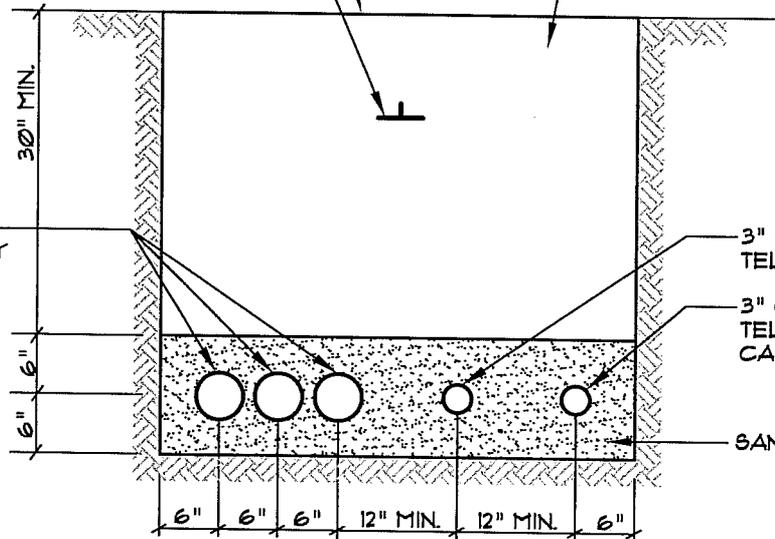
CLEAN BACKFILL  
CONTAINING NO ROCKS  
LARGER THAN 5"  
IN DIAMETER

3" CONDUIT FOR FUTURE  
PRIMARY OR SECONDARY  
ELECTRICAL CABLES

3" CONDUIT FOR FUTURE  
TELEPHONE CABLE

3" CONDUIT FOR FUTURE  
TELEVISION/COMMUNICATION  
CABLE

SAND BEDDING AND COVER



**NOTES:**

1. CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS.
2. ALL CONDUIT WILL BE INSTALLED WITH PULL STRINGS.
3. EACH END OF THE CONDUIT WILL BE CAPPED.

**TYPICAL UNDERGROUND  
CABLE INSTALLATION**  
NOT TO SCALE

**SEBAGO**  
TECHNICS

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. - Suite 1A    250 Goddard Rd. - Suite B  
South Portland, ME 04106    Lewiston, ME 04240  
Tel. 207-200-2100    Tel. 207-783-5656

**DETAIL**  
OF TYPICAL UNDERGROUND CABLE INSTALLATION

LOCATION:  
AUBURN INDUSTRIAL PARK  
AUBURN, MAINE

FOR:  
CITY OF AUBURN

SCALE:    NTS

DATE:    07-19-13

SHEET:  
1 OF 1

# UNITIL SPECIFICATIONS FOR TRENCHING AND BACKFILLING PROVIDED BY BUILDER/DEVELOPER

## Trench Depth

Mains -- the trench shall be deep enough to provide 36 inches of cover from finished grade to top of main. For all services and gas mains, on private property, 24 inches of cover is required.

## Trench Width

The trench shall be at least 18 inches wide, unless otherwise specified by Unitil personnel. The spoil should be at least 24 inches from the edge of the trench. (O.S.H.A.)

## Trench Offset

The trench shall be laid out so as to provide a minimum offset of 36 inches from other utilities. Where practical, gas mains should be on the opposite side of the street from the water main.

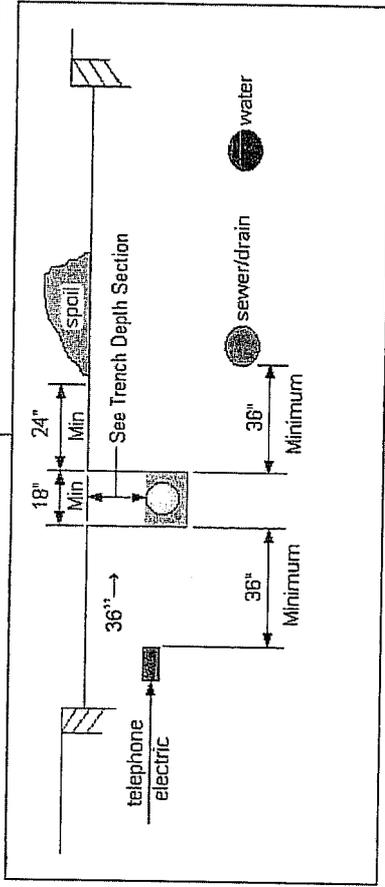
## Trench Padding

The natural bottom of the trench shall be padded with 6 inches of sand. Also, sufficient sand must be provided for a minimum of 6 inches of cover above the gas main. Sand shall be provided by the excavator and must be on site prior to installation of pipe.

## Pre-Construction Meeting

No trenching shall be started until an on site meeting has been held between excavating contractor and Unitil personnel. Prior to the meeting, the contractor must notify Dig Safe of the proposed work. The following shall be confirmed at the meeting:

1. Route of trench
2. Tentative start date



## Installation of Gas Main & Service

Once Unitil has installed the main and services, Builder/Developer will cover the pipe with 6 inches of sand and install the tracing wire and warning tape prior to backfilling. The excavating contractor shall be responsible for proper compacting of the trench and maintaining all surface (valve) boxes prior to and during on-site paving.

\*If this work is to take place outside of the normal construction season (April through November), off site tie-ins on city streets shall be done subject to Unitil crew availability and issuance of required permits.