CONTRACT DOCUMENTS

CITY OF LINCOLN
NEBRASKA

Enterprise Wide Asset Management Solution
(Request for Proposal)
Bid No. 15-189

Beehive Industries
151 No. 8th Street
Lincoln, NE 68508
402-875-5416

CITY OF LINCOLN
CONTRACT TERMS

THIS CONTRACT, made and entered into by and between **Beehive Industries LLC, 151 No. 8th Street, Lincoln, NE**, hereinafter called "Contractor", and the City of Lincoln, Nebraska, a municipal corporation, hereinafter called "City".

WHEREAS, the City has caused to be prepared, in accordance with law, Specifications, Plans, and other Contract Documents for the Work herein described, and has approved and adopted said documents and has caused to be published an advertisement for and in connection with said Work, to-wit:

Enterprise Wide Asset Management Solution, Bid No. 15-189

and,

WHEREAS, the Contractor, in response to such advertisement, has submitted to the City, in the manner and at the time specified, a sealed Proposal/Supplier Response in accordance with the terms of said advertisement; and,

WHEREAS, the City, in the manner prescribed by law has publicly opened, read aloud, examined, and canvassed the Proposals/Supplier Responses submitted in response to such advertisement, and as a result of such canvass has determined and declared the Contractor to be the lowest responsible proposer for the said Work for the sum or sums named in the Contractor's Proposal/Supplier Response and additional documents, copies thereof being attached to and made a part of this Contract;

NOW, THEREFORE, in consideration of the sums to be paid to the Contractor and the mutual covenants herein contained, the Contractor and the City has agreed and hereby agree as follows:

1. The Contractor agrees to (a) furnish all tools, equipment, supplies, superintendence, transportation, and other accessories, services, and facilities; (b) furnish all materials, supplies, and equipment specified to be incorporated into and form a permanent part of the complete work; (c) provide and perform all necessary labor in a substantial and workmanlike manner and in accordance with the provisions of the Contract Documents; and (d) execute and complete all Work included in and covered by the City's award of this Contract to the Contractor, such award being based on the acceptance by the City of the Contractor's Proposal, or part thereof, as follows:

   Agreement to full proposal and Exhibit A, B, and C

2. The City agrees to pay to the Contractor for the performance of the Work embraced in this Contract, the Contractor agrees to accept as full compensation therefore, the following sums and prices for all Work covered by and included in the Contract award and designated above, payment thereof to be made in the manner provided by the City:

   The City will pay for products/services, according to the RFP and Exhibit A, copies thereof being attached to and made a part of this Contract for an original term of 4 years at a cost of $1,796,333.00. Two (2) - Four (4) year renewal terms for licensing may be issued upon mutual consent of both parties at a cost of $674,376.00 per term, for a total cost with all options of $3,145,085.00.

3. Equal Employment Opportunity. In connection with the carrying out of this project, the contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, disability, age or marital status. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, national origin, ancestry, disability, age or marital status. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other compensation; and selection for training, including apprenticeship.

4. E-Verify. In accordance with Neb. Rev. Stat. 4-108 through 4-114, the contractor agrees to register with and use a federal immigration verification system, to determine the work eligibility status of new employees performing services within the state of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324 a, otherwise known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee pursuant to the Immigration Reform and Control Act of 1986. The Contractor shall not discriminate against any employee or applicant for employment to be employed in the performance of this section pursuant to the requirements of state law and 8 U.S.C.A 1324b. The contractor shall require any subcontractor to comply with the provisions of this section.

5. Termination. This Contract may be terminated by the following:
   5.1) Termination for Convenience. Either party may terminate this Contract upon one (1) year written notice to the other party for any reason without penalty.
   5.2) Termination for Cause. The City may terminate the Contract for cause if the Contractor:
      5.2.1) Refuses or fails to supply the proper labor, materials and equipment necessary to provide services and/or commodities.
      5.2.2) Disregards Federal, State or local laws, ordinances, regulations, resolutions or orders.
      5.2.3) Otherwise commits a substantial breach or default of any provision of the Contract Document. In the event of a substantial breach or default the City will provide the Contractor written notice of said breach or default and allow the Contractor ten (10) days from the date of the written notice to cure such breach or default. If said breach or default is not cured within ten (10) days from the date of notice, then the contract shall terminate.

6. Independent Contractor. It is the express intent of the parties that this contract shall not create an employer-employee relationship. Employees of the Contractor shall not be deemed to be employees of the City and employees of the City shall not be deemed to be employees of the Contractor. The Contractor and the City shall be responsible to their respective employees for all salary and benefits. Neither the Contractor's employees nor the City's employees shall be entitled to any salary, wages, or benefits from the other party, including but not limited to overtime, vacation, retirement benefits, workers' compensation, sick leave or injury leave. Contractor shall also be responsible for maintaining workers' compensation insurance, unemployment insurance for its employees, and for payment of all federal, state, local and any other payroll taxes with respect to its employees' compensation.

7. Period of Performance. This Contract shall be effective upon execution by both parties. The Contract shall be a four (4) year term with the option for two (2) additional four (4) year terms upon mutual agreement by both parties.

8. License Agreement: The City agrees to abide by the policies set forth in Exhibit C - Beehive End User License Agreement.

9. The Contract Documents comprise the Contract, and consist of the following:
   1. Contract Terms
   2. Accepted Proposal\Supplier Response
   3. Addendums No. 1, 2 and 3
   4. Asset Management Specifications
   5. Instructions to Proposers
   6. Insurance Requirements
   7. Exhibit A
   8. Exhibit B
   9. Exhibit C
   10. Fleet Inventory
   11. Sales Tax Exemption Form 13 (Not to be used for Water Division of the City of Lincoln projects)

The herein above mentioned Contract Documents form this Contract and are a part of the Contract as if hereto attached. Said documents which are not attached to this document may be viewed at: lincoln.ne.gov - Keyword: Bid - Awarded or Closed bids.

The Contractor and the City hereby agree that all the terms and conditions of this Contract shall be binding upon themselves, and their heirs, administrators, executors, legal and personal representatives, successors, and assigns.

IN WITNESS WHEREOF, the Contractor and the City do hereby execute this contract upon completion of signatures on:

Vendor Signature Page
City of Lincoln Signature Page

Vendor Signature Page

Enterprise Wide Asset Management Solution
Bid No. 15-189

EXECUTION BY CONTRACTOR

IF A CORPORATION:

Attest:

_____
Secretary

Seal

_____
Name of Corporation

_____
Address

By: _____
Duly Authorized Official

_____
Legal Title of Official

IF OTHER TYPE OF ORGANIZATION:

BEEHIVE INDUSTRIES LLC
Name of Organization

LLC
Type of Organization

151 N 8th ST, LINCOLN NE
Address

By: _____
Member WILLIAM C. THELDON

By: _____
Member

IF AN INDIVIDUAL:

_____
Name

_____
Address

_____
Signature

City of Lincoln Signature Page

Enterprise Wide Asset Management Solution
Bid No. 15-189

EXECUTION BY THE CITY OF LINCOLN, NEBRASKA

ATTEST:

_____
City Clerk

CITY OF LINCOLN, NEBRASKA

_____
Chris Beutler, Mayor

Resolution No._____

dated _____

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/11/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
UNICO Group
4435 O Street
Lincoln NE 68510

CONTACT NAME: Nadine Rohan
PHONE (A/C, No, Ext): (402)434-7200 **FAX (A/C, No):** (402)434-7272
E-MAIL ADDRESS: nrohan@unicogroup.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Travelers Casualty of America	25674
INSURER B: Travelers Indemnity Company	25658
INSURER C: Travelers Indemnity Co of CT	25682
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Nebraska Global Investment Company
151 North 8th St
Suite 300
Lincoln NE 68508

COVERAGES **CERTIFICATE NUMBER:** 15-16 All Lines **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC			680-8507P860-15-42	3/29/2015	3/29/2016	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			BA-6B656218-15-SEL	3/29/2015	3/29/2016	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 5,000			CUP-8545P815-15-42	3/29/2015	3/29/2016	EACH OCCURRENCE AGGREGATE	$ $2,000,000 $ $2,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		UB8545P587	3/29/2015	3/29/2016	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 100,000 $ 100,000 $ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Additional Named Insured: Beehive Industries, LLC

The City of Lincoln is included as Additional Insured as respects the General Liability coverage.

CERTIFICATE HOLDER

mlowe@lincoln.ne.gov

City of Lincoln Engineering Services
Mary Lowe, Contract Coordinator
901 W. Bond Street
Suite 100
Lincoln, NE 68521

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Chad Ideus/CM

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Exhibit A

Beehive Scope of Services, and Payment Terms for the City of Lincoln Nebraska

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AMS – Beehive Asset Management Solution

PWU – City of Lincoln Public Works & Utilities Department

PRD – City of Lincoln Parks & Recreation Department

Beehive – Beehive Industries LLC

City – The City of Lincoln

Project Team – City staff who represent the interests of the entire department(s)

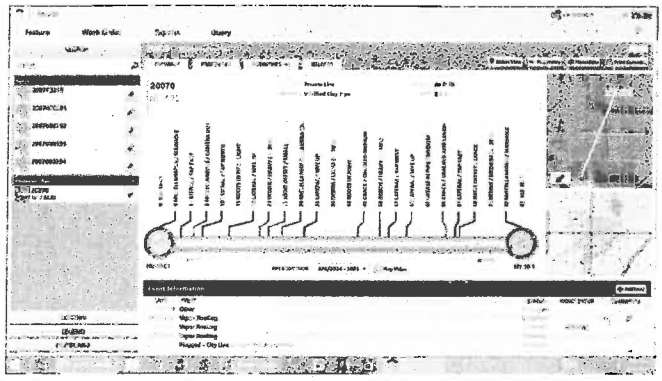
Module Team – City staff who represent the interests of a specific division, or functional group

2 LICENSE

This section describes the nature and scope of Beehive software licensing. As part of the Enterprise license, all licensing listed below is assumed to be active as of the date of this contract, although all use cases may not be active or accessible.

2.1 ASSET MANAGEMENT CONSOLE

This represents the primary interface for general management of assets.



2.1.1 Scope of License

License for this application covers an unlimited number of seats/users for employees of the PWU and PRD during the duration of this contract. Assuming an appropriate operating system, it requires no additional software licensing

2.1.2 System Requirements

Operating Systems:

- Microsoft Windows 10 (64 bit)
- Microsoft Windows 7 Service Pack 1 (32 / 64 bit)
- Microsoft Windows 8 (32 / 64 bit)
- Microsoft Windows 8.1 (32 / 64 bit)
- Microsoft Windows 10 (32/64 bit)

- Requires .NET 4.6

Hardware:

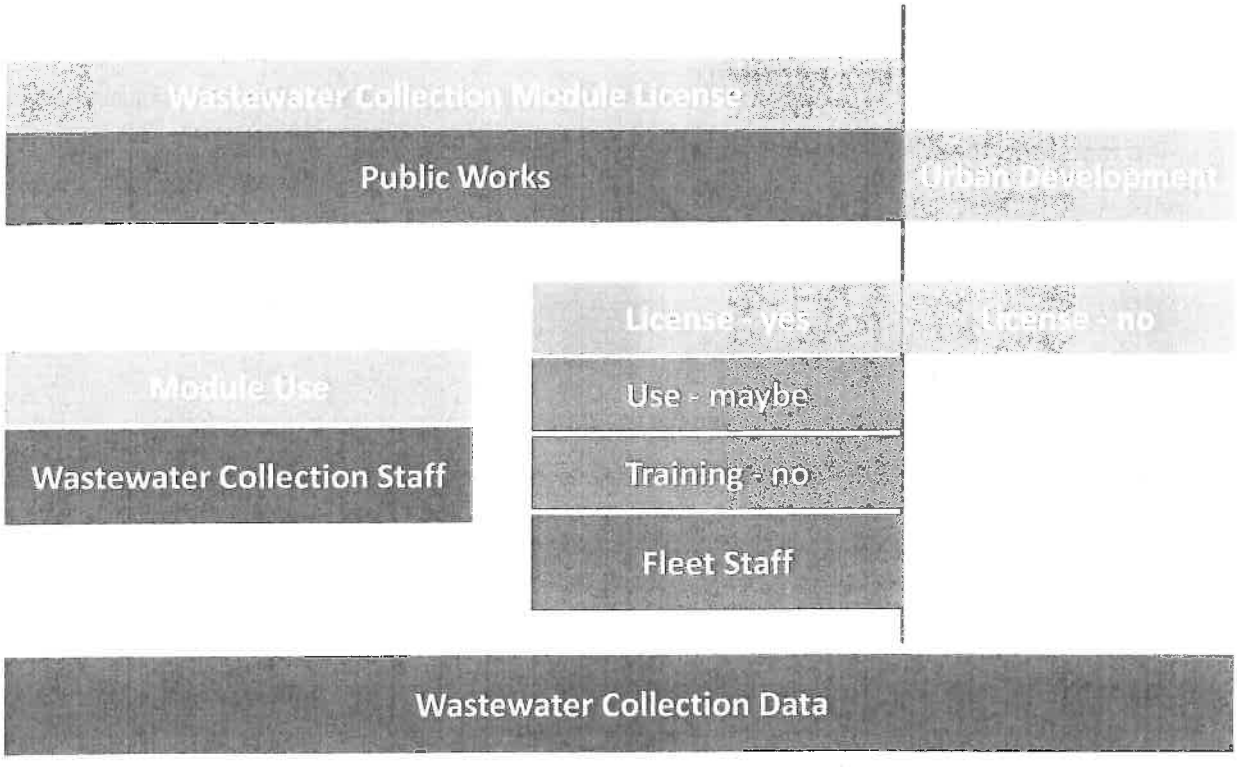
- Dual-Core 2Ghz+
- Minimum 8 GB RAM
- 10 GB Free Hard drive space
- Minimum monitor resolution of 1024x768
- Internet connection

Third Party applications or licensing:

- None

2.1.3 Exceptions

Although this provides licensing, from a practical standpoint, access to specific uses may be limited by configuration, training, conversion, or management defined permissions, as described in other areas of this document. The following outlines a scenario in which the Fleet Staff is licensed for the application, but they are unlikely to use it for its wastewater functions. In this example, the Urban Development has no license.



2.2 MOBILE APPLICATIONS - STAFF

This represents an interface for task management on a native mobile application.

2.2.1 Scope of License

The scope of this license is the same as Section 2.1.1 above.

2.2.2 System Requirements

Operating Systems:

- iOS 8 +
- Android 4.0.3 +

Although other devices may function, the following devices are supported:

IOS Devices

- iPhone 4s
- iPhone 5
- iPhone 5c
- iPhone 5s
- iPhone 6
- iPhone 6 Plus
- iPad 2
- iPad 3rd generation
- iPad 4th generation
- iPad Air
- iPad Air 2
- iPad mini
- iPad mini 2
- iPad mini 3

Android Devices

- Samsung Galaxy S3
- Samsung Galaxy S4
- Samsung Galaxy S5
- Samsung Galaxy S6
- Samsung Galaxy Note 3
- Samsung Galaxy Note 4
- Motorola Moto G (1st generation)
- Motorola Moto G (2nd generation)

2.2.3 Exceptions

The same exemptions described in Section 2.1.3 above apply here.

2.3 E311 PUBLIC

These interfaces allow the public to report issues using a native mobile app or an HTML5 interface.

2.3.1 Scope of License

This provides unlimited licenses for public users for the duration of this contract. License for E311 management console will follow the same criteria as Section 2.1.1 above.

2.3.2 System Requirements

Operating Systems:

- iOS 8 +
- Android 4.0.3 +
- HTML5 based browsers

Although other devices may function, the following devices are supported:

IOS Devices

- iPhone 4s
- iPhone 5
- iPhone 5c
- iPhone 5s
- iPhone 6
- iPhone 6 Plus
- iPad 2
- iPad 3rd generation
- iPad 4th generation
- iPad Air
- iPad Air 2
- iPad mini
- iPad mini 2
- iPad mini 3

Android Devices

- Samsung Galaxy S3
- Samsung Galaxy S4
- Samsung Galaxy S5
- Samsung Galaxy S6
- Samsung Galaxy Note 3
- Samsung Galaxy Note 4
- Motorola Moto G (1st generation)
- Motorola Moto G (2nd generation)

2.3.3 Exceptions

Issues related to, and configured for, deployed Beehive modules will be automatically routed to the corresponding functional group. Issues related to functional groups not covered in this contract will be emailed to a configured email address within that group. It is assumed that functional groups will not need any Beehive related licensing to receive these emails.

2.4 BEEBOX

Beehive will provide a centralized server for optional functions such as open data access, backup source, and API integration. The nature of this server is described in later sections.

2.4.1 Scope of License

Beehive will provide the server licensing for Windows Server 2012 or 2016 and for SQL Server Standard 2014 or 2016. It is assumed that the City will provide Client Access licensing for access to this resource. It is further assumed that the City will update the SQL Server and CAL versions to coincide with Beehive SQL requirements.

2.5 OPTIONAL THIRD PARTY SOFTWARE

It is assumed that any optional third party licensing that is not required by core Beehive functions, but that may take advantage of Beehive framework will be purchased and maintained by the City. This might include software from vendors such as ESRI or Microsoft.

3 MAINTENANCE

Throughout the duration of the contract, Beehive will provide the following services:

3.1 TECHNICAL SUPPORT

3.1.1 Availability

Beehive will provide unlimited technical support for Beehive software. This includes:

- Email
- Email initiated from Beehive to include system data
- Phone
- Remote help

3.1.2 Hours of Operation

Standard Beehive Support are from 8:00am – 5:00pm CST, Monday-Friday, except the following holidays:

- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Eve (Floating Holiday)
- Christmas Day

3.2 SOFTWARE UPDATES

At its own discretion, Beehive will continue to enhance the features of the licensed modules independent of other contract requirements. On existing modules, our development tends to fall into two categories:

- Enhancement – Making what you have work better
- Extension – Making what you have do something different

All enhancements are provided free of additional charge to our customers. It is anticipated that there will be enhancement released at least every six weeks during the deployment process.

Extensions may or may not carry additional charges.

3.3 HOSTING

Beehive will provide all required hosting services, including:

- Hosting hardware and technologies
- File storage for system resources or public attachments
- Data transfer fees
- Cloud management
- Third party licensing (Microsoft)

3.4 BEEBOX REPLACEMENT

Beehive will replace the BeeBox hardware described in the Deployment section every 36 months, as long as that date falls within an active license period. As the optimal hardware specifications and features will change in indeterminate ways during that time, the specifications of those replacements will be determined by Beehive.

4.1 OVERALL SCHEDULE

This project will be executed over a series of sprints covering 84 weeks.

Specific details of the schedule will be established during Project Kickoff meetings and ongoing Sprint planning meetings.

4.2 FEES

Calculation of Fees are as follows:

4.2.1 Fees for Core Deliverables

These deliverables include:

- Licensing indicated in Section 2 above
- Maintenance indicated in Section 3 above
- Deployment indicated in Section 5 below

Line	Item		Deployment	Year 2	Year 3	Year 4	Year 5
1	**Deployment across all functional groups**		$ 753,460				
	Project Equipment						
	12	Training center computers	$ 12,000				
	1	Training projector	$ 1,080				
2	**Annual Maintenance**			$ 154,000	$ 154,000	$ 154,000	$ 154,000
3		Licensing					
4		Technical Support					
5		Software Updates					
6		Server hardware					
7		Third partly licensing					
		Core Deliverables Total	$ 766,540	$ 154,000	$ 154,000	$ 154,000	$ 154,000

4.2.2 Fees for optional integrations and phased systems

These deliverables include items defined in Section **Error! Reference source not found.**. These items are optional and will be executed upon request from the City.

Line	Item		Deployment	Year 2	Year 3	Year 4	Year 5
8		Vehicle location technology					
9		AVL data warehouse & API	$ 31,150				
10		Maintenance for data warehouse		$ 8,482	$ 8,482	$ 8,482	$ 8,482
11		User interface	$ 7,974				
12		License for user interfaces (included in enterprise)		$ 0	$ 0	$ 0	$ 0
16							
17		Beehive API - Deployment	$ 2,492				
18		Beehive API - Maintenance		$ 0	$ 0	$ 0	$ 0
19		SCADA - Deployment	$ 4,984				
20		SCADA - Maintenance		$ 1,187	$ 1,187	$ 1,187	$ 1,187
21		OnBase - Deployment	$ 2,492				
22		OnBase - Maintenance		$ 0	$ 0	$ 0	$ 0
23		ESRI - Deployment	$ 7,476				
24		ESRI - Maintenance		$ 1,187	$ 1,187	$ 1,187	$ 1,187
25		Solar Winds - Deployment	$ 3,738				
26		Solar Winds - Maintenance		$ 623	$ 623	$ 623	$ 623
27		Granite XP - Deployment	*Standard with Beehive License*				
28		Granite XP - Maintenance	*Standard with Beehive License*				
29		Gasboy - Deployment	$ 2,492				
30		Gasboy - Maintenance		$ 623	$ 623	$ 623	$ 623
31		JD Edwards - Integration 1	$ 9,968				
32		JD Edwards - Integration 2	$ 5,482				
33		JD Edwards - Integration 3	$ 2,243				
34		JD Edwards - Maintenance		$ 2,492	$ 2,492	$ 2,492	$ 2,492
35		Street Saver Integration	$ 26,880				
36		Active Directory Integration	$ 44,800				
37		Resource tracking/time/allocation across all functional groups w/payroll handoff	$ 134,400				
38		Water/WW/WWTP SCADA Phase 2	$ 53,760				
39		Analytics - Phase 1 Data silo design and consulting Database configuration Data input and management	$ 40,320				
40		Analytics - Phase 2 Setup of Power BI datasets Setup of base templates Setup of scheduled updatess Training KPI development / implementation	$ 49,280				
41		Broadband tracking / conduit lease management /documentation	$ 67,200				
42		Mobile flood/emergency alert integration to public E311 mobile app	$ 26,880				
		Integrations and phased system totals	$ 524,011	$ 14,594	$ 14,594	$ 14,594	$ 14,594

4.2.3 Fee notes

Section 4.2.2/Optional integrations and phased systems - Associated fees are estimates based on parameters known at time of proposal and utilizing the discounted hourly rate indicated in Section 4.2.4 below. These items will be executed only at the behest of the City.

The notes below reference specifically numbered items listed in Section 4.2.2 above.

8 – AVL costs do not include vehicle hardware or data communication costs

10 - AVL warehouse maintenance includes cloud based server(s), and up to 10g of database storage. If data needs exceed 10g, additional costs may be incurred. Note that these annual costs are high due to the assumption of the need to have cloud infrastructure completely separate from Beehive core cloud infrastructure. This duplication might be mitigated through further discussion of the specific expectations of traffic, security, and access.

12 - AVL user interface tools become part of the associated module, and therefore have no separate maintenance cost

16 - All integration efforts are estimated based on current knowledge. Specific elements may change costs.

17 - All third party integrations assume integration with the Beehive API. Deployment costs cover the development of the API "shim" required to interface. If the 3rd party vendor's API can be configured to be directly compatible, these costs may reduce or be eliminated.

31 - It is assumed that the first JD Edwards integration element will take substantially longer, both due to the technology configurations, and the inter-departmental and inter-vendor permissions, agreements, documentation. Further integrations should become progressively easier.

38 - Assumes that Power BI licensing is the responsibility of the city.

43 – This hardware is to support project deployment and training over the 18 month period of deployment and will then be utilized by staff in daily operations. Hardware costs are subject to change, and as such the cost shown are estimates. Beehive will deliver hardware at a price of cost plus 5%.

4.2.4 Fees for Scope Changes

Scope changes requiring additional expenditures will follow one of these two procedures:

- Fixed fee proposal from Beehive based on defined scope
- Hourly rate
    - Beehive standard hourly rate for all services is $150/hr
    - This agreement assumes a commitment of at least 200 hours
    - This commitment establishes a discounted rate of $112/hr during the deployment period

4.3 FEE SCHEDULE

Beehive will issue invoices reflecting the following milestones and amounts:

4.3.1 Committed Deliverables

Date	Item	Amount	RevTD	
12/21/2015	Contract	54,753	54,753	▶ Total Deployment divided by 14 (Start + 13 Sprints)
	Sprint 1	54,753	109,506	
	Sprint 2	54,753	164,259	
	Sprint 3	54,753	219,011	
	Sprint 4	54,753	273,764	
	Sprint 5	54,753	328,517	
	Sprint 6	54,753	383,270	
	Sprint 7	54,753	438,023	
	Sprint 8	54,753	492,776	
	Sprint 9	54,753	547,529	
12/21/2016	Renewal	106,615	654,144	▶ License prorated to 69% of total licence based on completed Sprints
	Sprint 10	54,753	708,897	
	Prorated License	10,479	719,376	▶ Additional licence related to Sprint completion prorated to 88% of remainng license year
	Sprint 11	54,753	774,129	
	Prorated License	9,112	783,241	▶ Additional licence related to Sprint completion prorated to 77% of remainng license year
	Sprint 12	54,753	837,994	
	Prorated License	7,746	845,740	▶ Additional licence related to Sprint completion prorated to 65% of remainng license year
	Sprint 13	54,753	900,493	
	Prorated License	6,379	906,871	▶ Additional licence related to Sprint completion prorated to 54% of remainng license year
12/21/2017	Renewal	154,000	1,060,871	
			1,060,871	
12/21/2018	Renewal	154,000	1,214,871	
			1,214,871	
12/21/2019	Renewal	154,000	1,368,871	

4.3.2 Optional Deliverables

These items are to be executed upon request of the City. The process of option approval will follow the same procedure as Change Management: Section 6.2 below.

Upon approval 50% of the item cost will be invoiced, with the remainder invoiced upon completion.

5.1 PROJECT INITIATION

Sprint 1 - This sprint of the project is anticipated to be six weeks long, although with a project start of December 1, there may be some slide on the calendar due to December holidays. The responsibilities below are to be executed within this sprint.

5.1.1 Beehive Responsibilities

a. Meet with upper management team to determine members of the City Project Team
b. With City Project Team, establish dates/times for Project Initiation meetings defined below
c. Conduct two(2) three hour meetings in week 1
d. Conduct one(1) one hour meeting in each of the remaining weeks of the sprint
e. Issue meeting report within 24 hours after each meeting with status and resulting assignments
f. Establish project communication plan
g. With City Project Team, establish overall order of deployment
h. With City Project Team, establish an outline for Sprint 2 meeting
i. With City Project Team, determine attendees of Sprint 2 meeting
j. Continue to review and research data and processes for all functional groups

5.1.2 City Responsibilities

a. Upper management to meet with Beehive team to determine members of the City Project Team
b. With Beehive, establish dates/times for Project Initiation meetings defined below
c. City Project Team to attend two(2) three hour meetings in week 1
d. City Project Team to attend one(1) one hour meeting in each of the remaining weeks of the sprint
e. Review and provide feedback on meeting reports
f. Execute on any assignments
g. With Beehive Team, establish overall order of deployment
h. With Beehive Team, establish an outline for Sprint 2 meeting
i. With Beehive Team, determine attendees of Sprint 2 meeting
j. Establish expectation in all functional groups that Beehive team members are to be given access to all data, reports, processes, and workflows.

5.1.3 City Project Team makeup

This city project team has responsibilities in overall success of the project, and will need to provide input and effort through the entire project. In cooperation with Beehive, this team will keep a pulse on the overall health and pace of the project, as well as identifying upper management needs. It is possible that the members of the Project Team will need to change as the project goes along based on better understanding of the project needs and team aptitudes. Responsibilities include:

- Attendance at Project Planning meetings identified above
- Substantial presence at Sprint Review meetings identified below
- Nomination and approval of each module team defined below

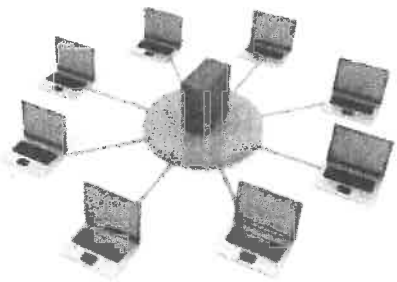
- Consistently communicating management commitment to the project to all participants
- Quickly and clearly communicating concerns about Beehive performance
- Participation in adjustments to scope, schedule, or expectations

Minimally, this team would include some combination of:

- Representative(s) of upper management with the authority to approve scope and schedule changes
- Representative(s) of technical services
- Staff members who are assigned to ensure consistent use of certain features **across** modules within the department to ensure that management visibility is maintained and that cross-division KPIs provide consistent results. These might include features such as:
    - Condition management
    - Confidence levels
    - Workforce management
    - Time tracking
    - Material tracking
    - Reporting

5.1.4 Project Equipment

The configuration, data conversion, data validation, and training required in this project will involve multiple teams across multiple divisions and departments. The most effective adoption will come from these teams working closely together during these key phases.



This item creates a portable classroom & workshop to be deployed in key areas adjacent to the specific workgroups involved. At the completion of the project, these units would utilized in daily operations.

Beehive will provide twelve(12) portable workstations appropriate for training, data validation, and operational use. Beehive will also provide one(1) high resolution projector for use in these sessions.

5.2 FUNCTIONAL GROUP TASKS

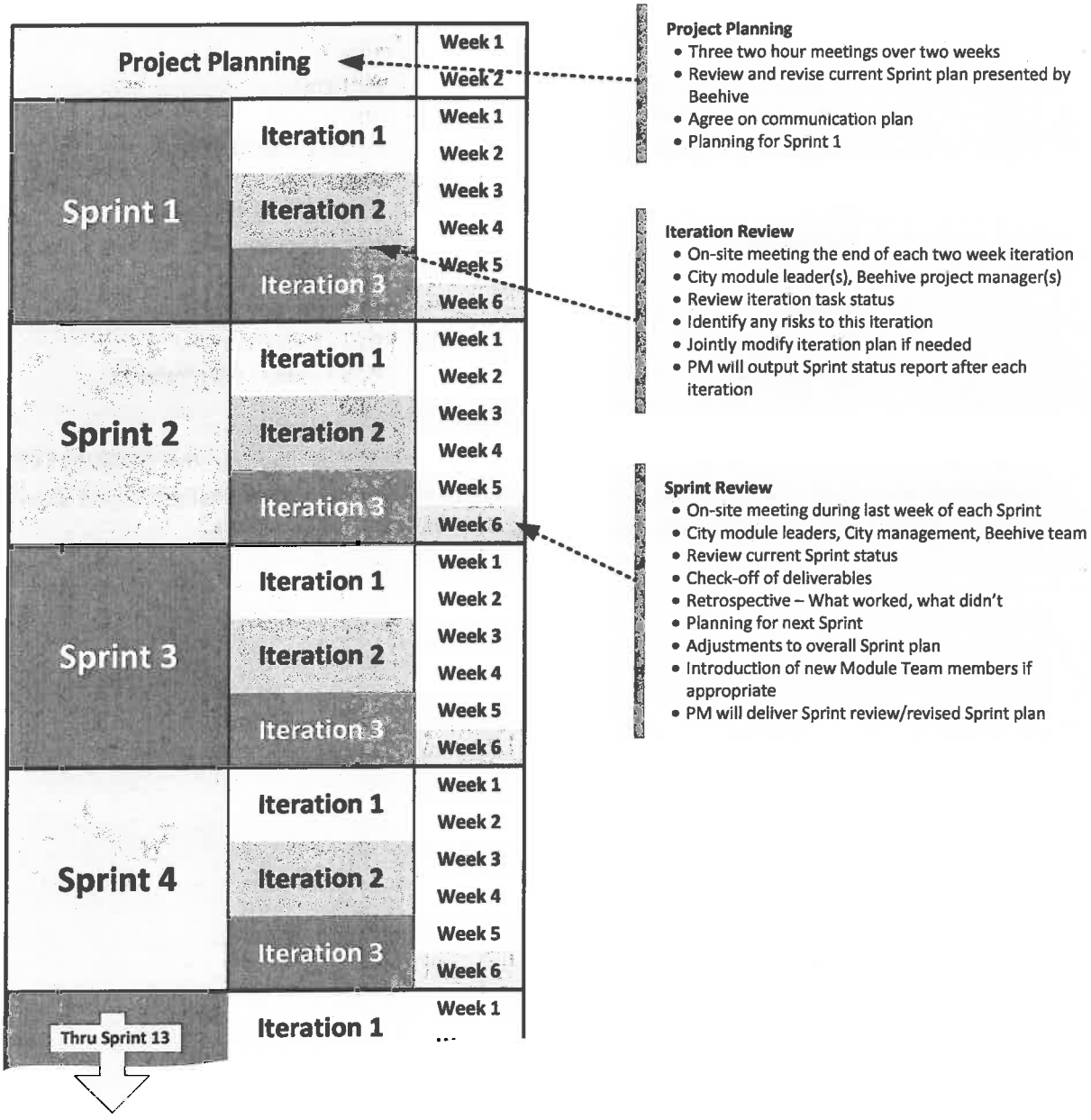
This section defines tasks to be applied to all functional groups. These groups are:

- Water Distribution
- Wastewater Collection
- Watershed Management
- Wastewater Treatment
- Water Production & Treatment
- Fleet
- Solid Waste
- Facilities
- Pavement
- Street Operations
- Conduit/Fiber
- Signals
- Sidewalk
- Signs
- Public Access/E311
- Parks-Trees
- Parks-Land & Easements
- Parks-Facilities
- Parks-Trails
- Parks-Parkland Use
- Parks-Public Art
- Parks-Tributes & Memorials

While this defines tasks to be applied to all functional groups, it is assume that the amount of effort by all parties will vary from group to group. The final configuration of each functional group will draw from the features and functions defined in **Attachment B: Beehive Features and Functions.**

5.2.1 Project Management Milestones

This outline defines the rhythm of the project through the use of sprints and iterations. The lists to the right are important aspects of this process and ensure continuous and effective communication.



5.2.2 Beehive Responsibilities

Staging

a. Preliminary review of data
b. Interview interested parties
c. Draft preliminary module project plan
d. Schedule Kickoff meeting
    - Kickoff – Identify primary and secondary contacts
    - Kickoff – Review standards and methods established for the department in earlier meetings
    - Kickoff – Establish overall goals
    - Kickoff – Review and revise project plan
    - Kickoff – Address questions or concerns
e. Publish revised project plan
f. Obtain approval for project plan

Data conversion

g. Draft preliminary data conversion plan
    - Intended schedule
    - Raw data delivery dates
        - Two dates
        - One for data conversion design / conversion validation
        - One for final conversion
    - List of deliverables from Module Team
    - Anticipated go-live date
h. Review with Module Team
i. Revise and republish
j. Execute data conversion plan
k. Communicate data questions, concerns, or decision options to Module Team
l. Train Module Team on data validation process
m. React and revise based on data validation feedback
n. Get sign-off on data validation

Data review will be performed by the module team and/or others they may designate. The module team will receive individual training from Beehive through the data review process so they are well equipped to understand the product and how the data is being handled.

The data review process will be finalized by the completion of a checklist. This checklist will be created by the Beehive Project Manager during the preliminary conversion phase with help from the module team. Modifications to the checklist can be made during the conversion process and will be agreed to by both the module team and Beehive team. The checklist will be reviewed, completed, and signed by both the module team and the Beehive team. Completed checklists will be managed by the Beehive project manager.

Training

o. Establish Beehive Sandbox for training and practice
p. Develop training curriculum
q. Develop training checklists
r. With Module Team, schedule training sessions
s. Conduct training sessions
t. With Module Team, update training checklists
u. Coordinate First Week live training in initial go-live period

For the module leaders, some element of training will have already occurred to provide a platform for preliminary data conversion review. This task completes and formalizes training for the remaining members of the functional group. Beehive will provide an curriculum and a checklist for these trainings. Checklists will be generated based on the content of the module and the daily task of the functional group. Completed checklists will be managed by the Beehive deployment manager, copies can be made available if needed.

Whereas training on enterprise software often requires intense day long sessions, we recommend shorter, but more frequent training. This allows users quick success in early training and use in production, which prepares them better for more advanced training.

Training times will be coordinated by the module leaders and the Beehive team to find mutually available times. Module leaders, although already trained, will typically attend training sessions for the remaining staff to provide input and support.

5.2.3 Module Team Responsibilities

a. Identify data sources
b. Provide data sources according to defined tasks
c. Provide input and clarification during conversion design process
d. Attend all associated Sprint Iteration meetings
e. Attend all associated Sprint review meetings
f. Provide enthusiastic support of the project
g. Execute assigned tasks
h. Assign tasks to other staff
i. Sign off on project plan
j. Sign off on conversion plan
k. Sign off on data validation
l. Sign off on training checklists
m. Provide detailed description of in-productions issues and concerns

5.2.4 Project Team Responsibilities

a. Clear communication of upper management expectations to Module Team and to Beehive
b. Oversight when needed of both Module Team and Beehive Team
c. Attendance and participation in Sprint Review meetings
d. Attendance at Iteration meetings if desired
e. Execute assignments provided by the Module Team
f. Provide clarification of upper management initiatives or standard that impact this module
g. Sign off on Sprint Review
h. Sign off on Billing Requests

5.2.5 Assumptions

a. Implementation of any functional group will draw from any features and functions listed in **Attachment B: Beehive Features and Functions**

b. Although review and mapping of City data to Beehive structures will be a collaborative process, the city is ultimately responsibility for client data definition

c. Conversion of data will be limited to data that is supported by the features and functions listed in **Attachment B: Beehive Features and Functions**

6.1 MINOR FUNCTIONAL GROUP CHANGES

These include changes that:

- Only impact a single functional group
- Involve no financial changes

Procedure:

1. Can be approved by Module Team in collaboration with Beehive team
2. After verbal agreement, Beehive will initiate an email to the Module Team outlining the change
3. A member of the Module Team will reply with approval
4. Changes will be noted in project updates
5. Changes will be reported in Sprint Review

6.2 MAJOR FUNCTIONAL GROUP CHANGES

These include changes that:

- Impact more than one functional group
- Substantially alter the intent of the contract
- Involve no financial changes

Procedure:

1. Either the City, Beehive, or both can determine that a change is considered "major"
2. Must be approved by a member of the Project Team in collaboration with Beehive team
3. After verbal agreement, Beehive will initiate a document describing the change
4. Beehive will sign the document
5. A member of the Project Team will sign the document
6. The City will retain the original. Beehive will retain a copy.
7. Changes will be noted in project updates
8. Changes will be reported in Sprint Review

6.3 CHANGES INVOLVING REDUCTIONS IN COSTS TO THE CITY

These include changes that:

- Will result in a reduction of payments to be made to Beehive

Procedure:

1. Must be approved by a member of the Project Team in collaboration with Beehive team
2. After verbal or email agreement, Beehive will initiate a document describing the change
3. Beehive will sign the document
4. A member of the Project Team will sign the document
5. The City will retain the original. Beehive will retain a copy.
6. Changes will be noted in project updates
7. Changes will be reported in Sprint Review

6.4 CHANGES INVOLVING INCREASES IN COSTS TO THE CITY

These include changes that:

- Will result in increased billings from Beehive

6.4.1 Increases under the total contract value

1. Must be approved by a member of the Project Team in collaboration with Beehive team
2. After verbal or email agreement, Beehive will initiate a document describing the change
3. Beehive will sign the document and submit to the Project Team
4. The Project Team will review the change request
5. A member of the Project Team will sign the document and provide a copy to Beehive
6. The City will retain the original. Beehive will retain a copy
7. Changes will be noted in project updates
8. Changes will be reported in Sprint Review

6.4.2 Increases that exceed total contract value by less that $25,000

1. Must be approved by a member of the Project Team in collaboration with Beehive team
2. After verbal or email agreement, Beehive will initiate a document describing the change
3. Beehive will sign the document and submit to the Project Team
4. The Project Team will review the change request
5. A member of the Project Team will create a Director Order (DO) for the PW Director.
6. PW Director will review the DO and approve if agreed to.
7. A copy of approved DO will be provided to Beehive.
8. The City will retain the original. Beehive will retain a copy.
9. Changes will be noted in project updates
10. Changes will be reported in Sprint Review

6.4.3 Increases that exceed the total contract value by more than $25,000

1. Must be approved by a member of the Project Team in collaboration with Beehive team
2. After verbal or email agreement, Beehive will initiate a document describing the change
3. Beehive will sign the document and submit to the Project Team
4. The Project Team will review the change request
5. A member of the Project Team will create an Executive Order (EO) for the PW Director to review
6. PW Director will review the EO and approve if agreed to
7. The EO will then be forwarded to the Mayor for final approval
8. A copy of approved EO will be provided to Beehive
9. The City will retain the original. Beehive will retain a copy
10. Changes will be noted in project updates
11. Changes will be reported in Sprint Review

The tasks in this section are available upon approval by the City. Depending on the impact to the scope defined below, this will follow the same procedures as Section 6.2, 6.3, or 6.4 above.

7.1 PHASED SYSTEMS

These tasks will be generally be implemented after core functional groups are implemented, and at the direct request of the City.

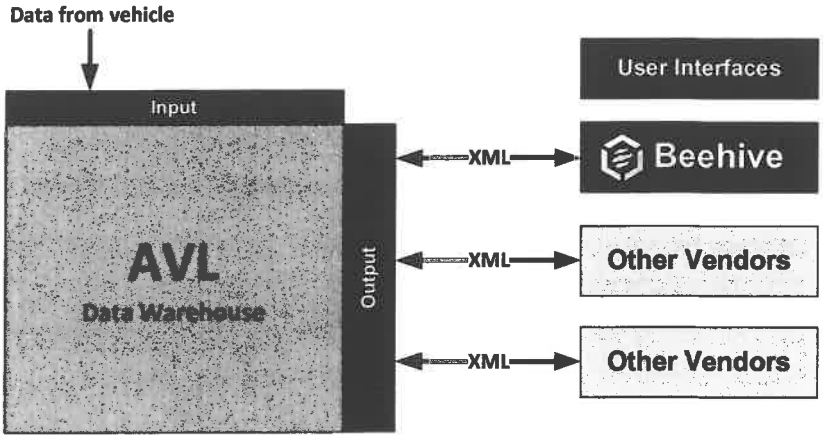
7.1.1 AVL

Our recommendation is the creation of an AVL data warehouse to capture and contain any raw AVL data, and an open API for consumption of that data by software vendors, including Beehive.

7.1.1.1 All for one, and one for all

AVL and location services in general are changing all the time, and these changes are most felt at the user interface. We highly recommend that you do NOT create an AVL environment that locks you into one vendor for the use of AVL data.

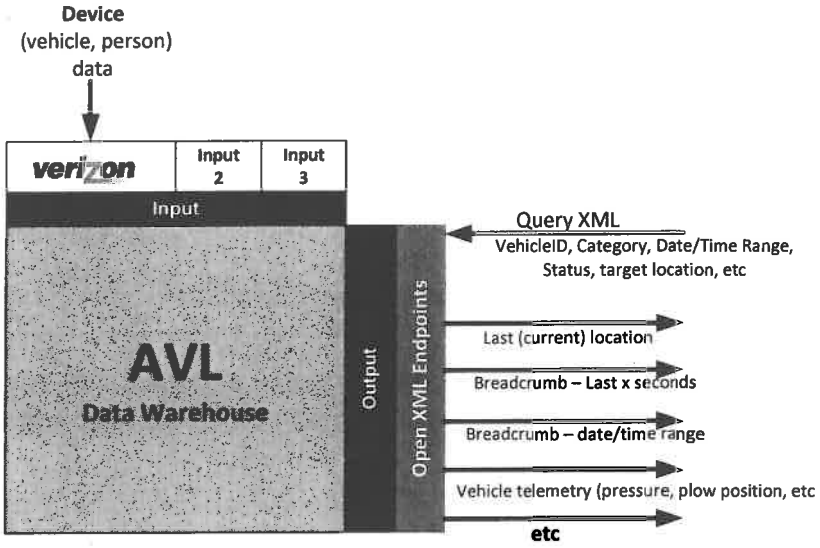
Our recommendation is the creation of an AVL data warehouse to capture and contain any raw AVL data, and an open API for consumption of that data by software vendors, including Beehive.



This allows you to full utilize AVL within Beehive products, but also provides access for other vendors to interface in cases where Beehive does not provide the functionality you might need for a particular case. The open and industry standard nature of the API ensures the highest flexibility

7.1.1.2 AVL Data Warehouse

Beehive proposes a data warehouse to house all AVL data inbound from the various data sources available.



Features of the AVL warehouse include:

- SQL Server backend deployed from the cloud
- Inputs configurable for various inputs
- Classification of input data
- Configuration of retention rules for different data classes

- Defined and open web service interfaces
- Security token requirement if desired
- XML based Query definition for calling methods, and passing parameters
- A set of API methods for common AVL functions (examples shown above)

Note: These methods are not intended to cover all possible uses of AVL. Instead, they are intended to provide access 100% of all data, along with functions that are typical of AVL uses, and/or that represent building blocks for utilization by user facing software. As an example, since the warehouse does not contain planned routes, it does not include a method for detecting variance from that route. This type of functionality would need to be provided by the interface vendor.

Although the intent is to allow multiple types of XML input to the AVL data warehouse, the city may want to consider utilizing Verizon Web Services. Verizon provides a managed end-to-end transport of AVL data from device to web service endpoint. This can be quick way to simplify everything from the vehicle to the front door of the data warehouse.

This endpoint can directly connect to the AVL data warehouse. This solution provides several features that are advantageous to this solution:

- Hold-and-forward – To avoid data loss due to temporary communication restriction
- Programming of devices from management console
- Defined API
- Support for full AVL telemetry, including engine data, external sensors

Beehive has no financial relationship with Verizon, and these services are likely to be much less expensive in association with the city's current Verizon account.

NOTE: Verizon services are NOT included in the costs associated with this proposal. If desired, Beehive can help facilitate that relationship.

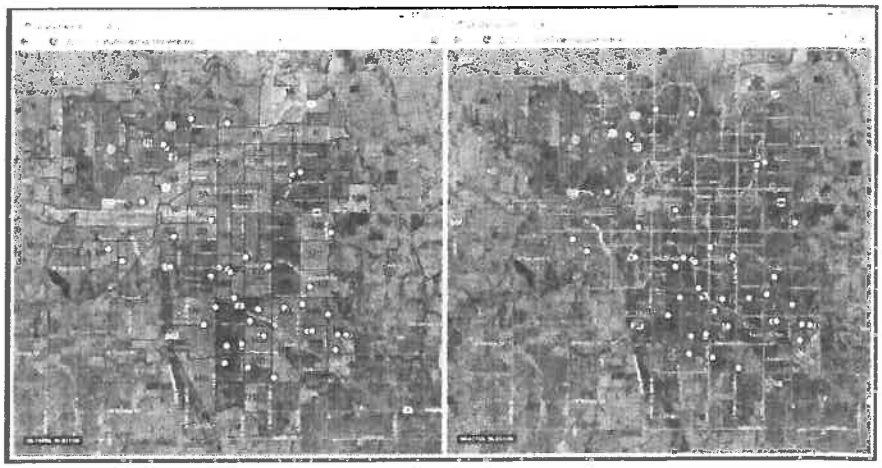
7.1.1.4 User Interfaces

Possible AVL related uses are somewhat determined by factors under the city's control, including:

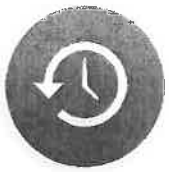
- Type of location devices used on vehicles
- Communication methods and latency
- Available of auxiliary telemetry (plow position, engine data, etc)

Assuming a full implementation of all of these factors, Beehive can provide:

- Current location of selected vehicle
- Breadcrumb trail of selected vehicle
    - From current date/time for a specific trailing time frame
    - For a specific date/time range
    - With map symbolization indicating a single telemetry parameter
- Determine and display closest vehicle of a specific category/status to a given target
- Equipment tracked as assets within Beehive can be associated with specific fleet assets. This allows the selection of the closest vehicle, which has needed equipment for the task.



7.1.2 Resource/Time Tracking/Allocation



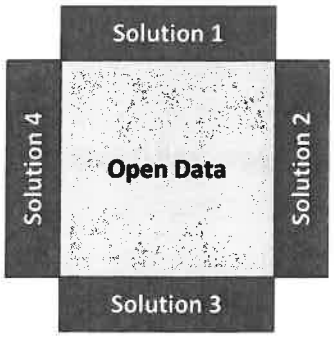
Accurate documentation of time and effort are vital for effective asset, project, and human resource management. The largest expense in these departments is people, and including detailed time and cost in analysis is key to effective application of dollars to impact. Despite this, collection of time, and more importantly, allocation of the associated costs is a cumbersome process that provide innumerable opportunities for errors and lost data.

This effort will:

- Unify time collection across all personnel
- Minimize friction related to data entry
- Provide flexible tools for allocation of time and costs to the correct activities and initiatives
- Eliminate duplication of entry into multiple systems
- Handle allocation of administrative time types such as overtime, comp, vacation, and sick time
- Direct transfer of time from work order and asset management systems to payroll systems
- Reporting and analytics

7.1.3 Analytics Phase 1 – Data Warehouse

This phase designs, develops, and deploys a data silo within the City network to provide open source data access to all authorized users. The Beehive platform provides open access to the underlying data. This data can be used for additional analytical tools that may not be provided in the Beehive applications. The intent of this is to have unrestricted access to the data for answering very specific questions as needed.



This data silo will be installed on the server provided by Beehive described in Section 1.18.2 of Exhibit B.

Beehive will provide data portals for direct access by multiple third-party programs, including:

- ESRI ArcMap
- Microsoft Excel
- Autodesk Autocad
- Bentley Microstation

7.1.4 Analytics Phase 2 - Business Intelligence

This phase implements Power BI is a Microsoft technology enabling the discovery, visualization, and sharing of data in a self-service fashion. It is intended to provide analytical tools and self-service dashboards for individuals and groups.

This assumes that the City will acquire Power BI set licenses through your current Volume License program.

7.1.4.1 Setup of Power BI datasets

Power BI requires a setup of a data mining structure that reflects the data of interest. This task would define the data silos within Power BI, and populate them with initial data. These data sets will tend to reflect:

- Assets
- Events (Service requests, Work Orders, other activities
- E311 activities
- Time
- Materials

Data silo storage is currently limited to 10 gb per licensed user but this aggregates based on the number of users. We do not anticipate this being a problem. If you have 5 licensed users, this would give you 50 gb of data.

7.1.4.2 Setup of base templates

Beehive will setup default Datasets, Reports, and Dashboards within Power BI. This will give you a starting place for further customization.

7.1.4.3 Setup of scheduled updates

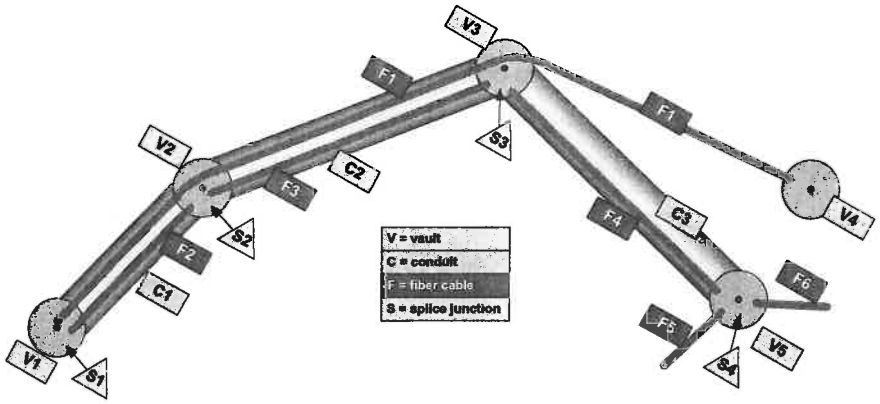
Power BI data silos are hosted and stored by Microsoft, and need periodic data updates. These are generally scheduled to occur either hourly or daily. Beehive will collaborate with City staff to define these schedules, which may vary depending on the data set.

7.1.4.4 Training

Beehive will provide on-site training for City users. This is intended to give users a base level of functionality, and is not intended to explore all permutations of Power BI use. This includes four(4) two hour sessions.

7.1.5 Broadband Conduit and Lease Tracking

As City conduit and fiber systems rapidly expand in the next few years, it is anticipated that needs will dramatically increase for enhanced management of increasingly complex systems.



Enhancements are anticipated to be needed in the management of:

- Leases
- Contractors
- Document management of design/as built/field notes

7.1.6 Mobile Emergency Alert for Staff & Citizens

The core deployments for functional groups include basic task distribution to staff, and issue input by the public. This task provides for push notification to the public for important issues and emergencies.

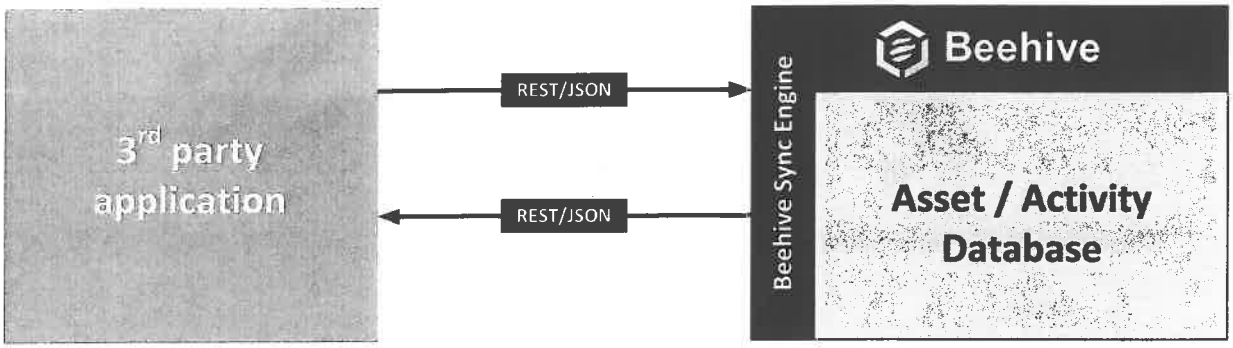
This can include geo-fencing for altering only citizens in a specific area to localized threats.

7.2 INTEGRATIONS

These tasks provide direct sharing of data and functions between systems. These will be implemented as needed and at the direct request of the City.

Beehive provides a defined and open API. This interface allows for:

- SSL Secured authentication
- Insertion of records representing Assets, Events, or Attachments
- Notification of data changes within Beehive



Most integrations described here consist of a Beehive configured "shim" between the Beehive and the third party solution. These methods assume the existence of an API from that third party, and that this API be exposed and accessible by Beehive.

7.2.1 SCADA Systems – Phase 1/2

Beehive can provide two types of SCADA integration:

- Direct call of device UI through a URL
- Injection of SCADA triggered events into Beehive via the Beehive API

This proposes the configuration of any defined needs that fit the methods above. SCADA URL parameters and/or event endpoint definitions are expected to be provided by the city or the vendor.

Although these items can be scoped if desired, this proposal assumes that:

- Beehive is used to visualize or absorb SCADA data
- Beehive does not provide any interface that directly controls a hardware device
- Beehive does not directly interface with any PLC, OPC, or MOBUS

The City is currently planning for a major enhancement and extension of SCADA systems to further automate processes, monitoring and safety. Potential integrations with Beehive are defined in two phases, with the first phase being the calling of SCADA interfaces via URL and the second phase utilizing a deeper integration between equipment and devices represented in Beehive and the functions provided by SCADA.

7.2.2 OnBase

Beehive will provide direct support of OnBase as an alternate Attachment store. Retrieval will be managed through an exposed OnBase URL. Both options are subject to limitations imposed by OnBase functions or licensing.

This capability may require OnBase provided APIs such as Application Enabler and Web Services.

7.2.3 ESRI

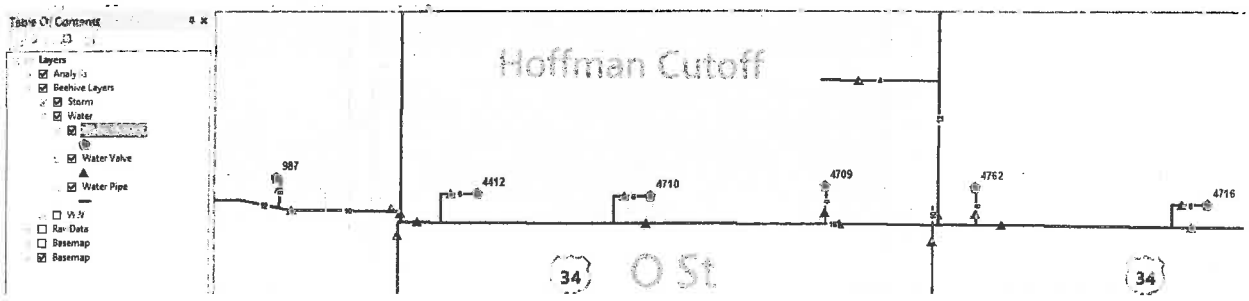
Beehive provides several methods of integration with ESRI products, which are described below.

7.2.3.1 ESRI ArcMap – Feature Class Visualization

This method is available within ArcMap, regardless of license level.

With the ESRI Toolbox, Beehive provides:

- ESRI Layer files (.lyr) for every Feature Class
    - Contains direct data connection to the Beehive based features
    - Includes attributes of the features
    - Contains default Beehive settings for:
        - Symbology
        - Scale dependency
        - Labeling
        - Etc
- Like any other Layer file, once it is loaded the user can change any setting, save new Layer files, save setting in the .MXD etc.
- These Layers are Read-only
- In every other respect, they will behave exactly like a layer from a geodatabase, shape file, or other source. This includes, selection, export to shape files or geodatabase, querying, labeling, and use as a source file in geoprocessing.
- Beehive data can be intermixed with data from any other source

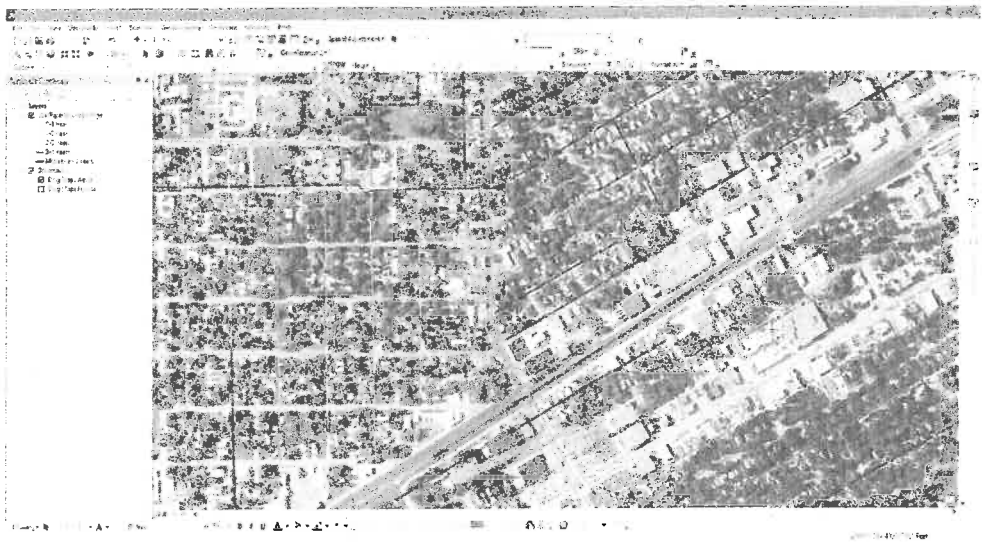


7.2.3.2 ESRI ArcMap – Event Visualization

This method is available within ArcMap, regardless of license level.

With the ESRI Toolbox, Beehive provides:

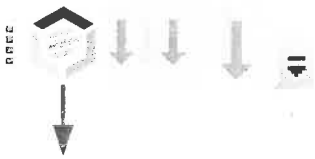
- ESRI Layer files (.lyr) for Events on each Feature Class
    - This allows direct visualizing of activities, for example:
        - Thematic mapping of temporal data
        - Work order progression
        - Activity Aging (How long since we flushed these pipes?)
        - Planning (visualization of planned Events)
    - Contains direct data connection to the Beehive based features
    - Includes attributes of the feature and the Event
    - Contains default Beehive settings for:
        - Symbology
        - Scale dependency
        - Labeling
        - Etc
- Like any other Layer file, once it is loaded the user can change any setting, save new Layer files, save setting in the .MXD etc.
- These Layers are Read-only
- In every other respect, they will behave exactly like a layer from a geodatabase, shape file, or other source. This includes, selection, export to shape files or geodatabase, querying, labeling, and use as a source file in geoprocessing.
- Beehive data can be intermixed with data from any other source



Age of Visual Pipe Inspections

7.2.3.3 ESRI ArcMap – Navigation to Beehive Feature

The Beehive ESRI Toolbox includes an ArcMap toolbar. These tools are available regardless of license level.

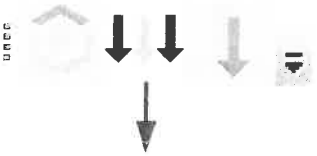


One of these tools allows direct navigation within Beehive from the ArcMap environment.

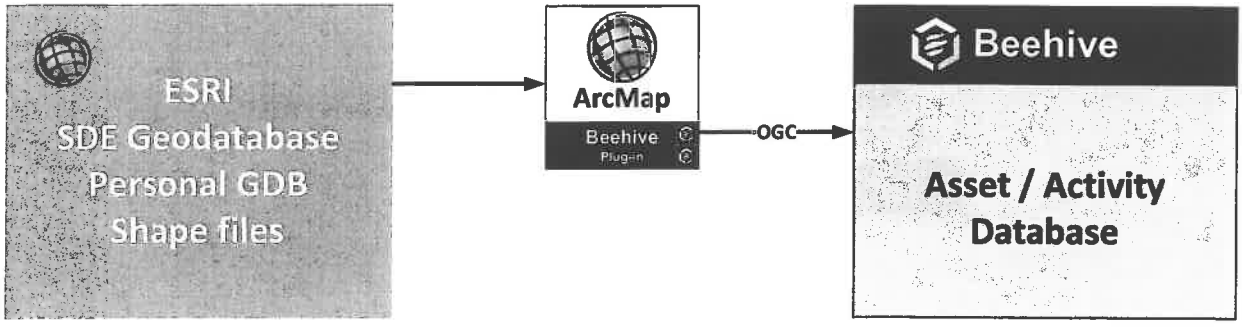
1. The user has Beehive running
2. Within ArcMap, the user selects the tool..
3. And then selects the feature of interest
4. Beehive becomes the active application and loads that feature

7.2.3.4 ESRI ArcMap – Editing With SDE as Geometry Master

Another option of leveraging data within the ESRI environment is through the Beehive GIS Push command. Data is edited within ArcGIS Desktop through any standard editing tools and then posted to Beehive.

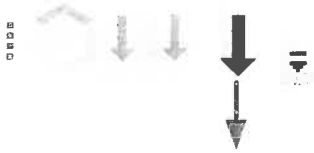


This tool allows the user to directly update Beehive features from an ESRI data store. Upon selection of this tool, the user can choose to update specific feature classes, in whole or by selection. This will work with any ESRI data store including SDE Geodatabase, Personal GDB, and Shape files.

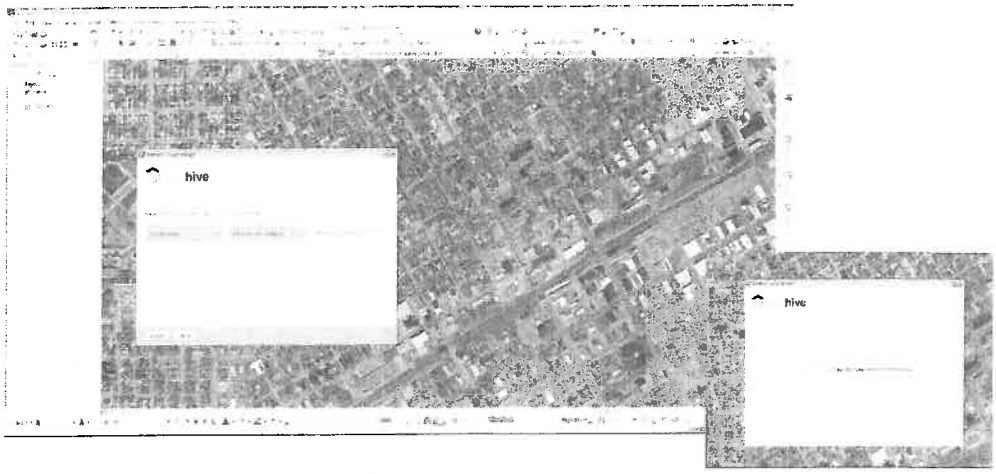


7.2.3.5 ESRI ArcMap – Editing with Beehive as Geometry Master

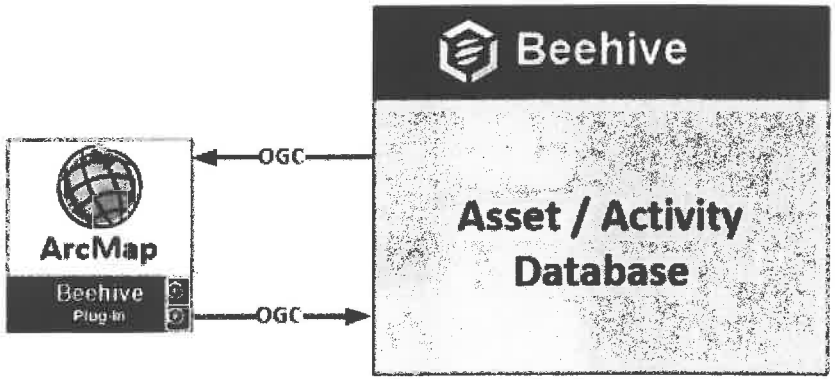
As part of ESRI Toolbox, this option allows direct editing in the ESRI ArcMap environment, but assumes that the Beehive OGC data store is the master.



Upon selection of the tool, a dialog box launches that asks which feature classes you wish to edit.

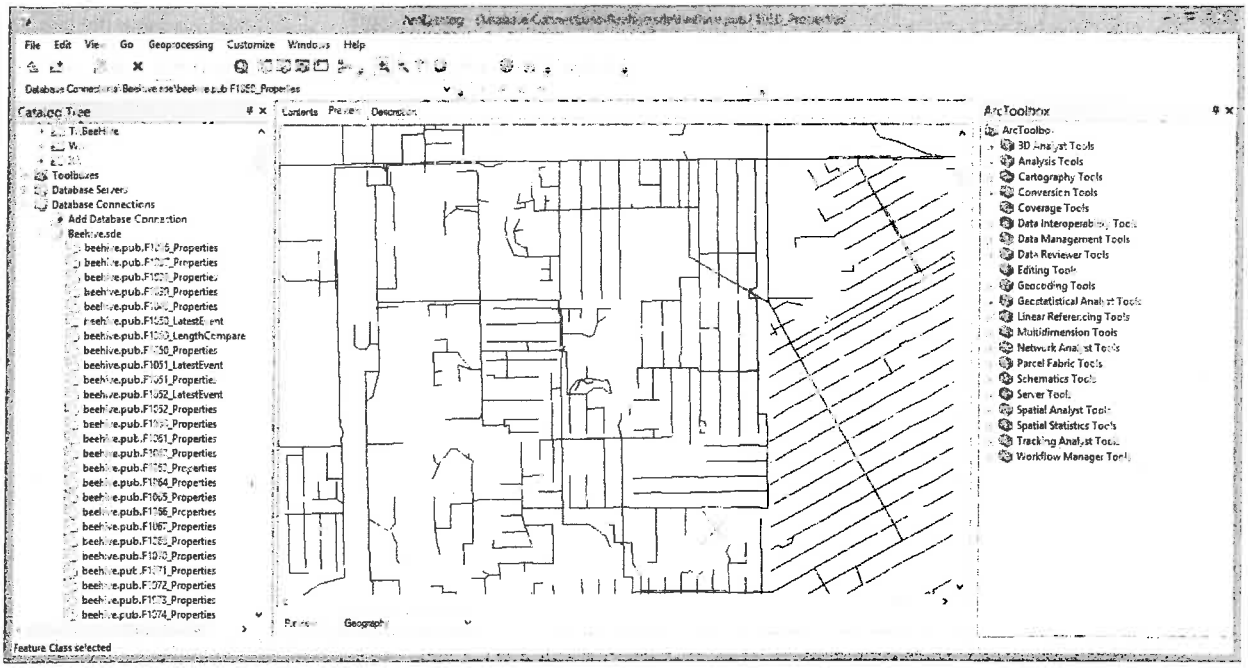


Once the data has been completely connected and is ready for edits, any standard editing tools with the ArcGIS Desktop environment are available for use.



7.2.3.6 ESRI ArcSDE Database Connection

The Beehive data store can be utilized as a direct Database Connection through ArcSDE. By leveraging the ArcSDE connection and set up tools, the Beehive database can serve as the primary repository for everything including the spatial data, asset property data, work orders, images and documents, etc.



7.2.3.7 Beehive As ESRI ArcGIS Server Services

All data that is stored within the Beehive database can also be served out as ArcGIS Server services. By leveraging tools within both ArcCatalog and ArcGIS Desktop applications, data can be published as services along with full map files.

7.2.3.8 Beehive WMS Services For Other Applications

Beehive can provide WMS Services for any and all features.

7.2.3.9 Consumption of WMS Services By Beehive

For HTML5 based Beehive applications, we can consume WMS Services as layers. However, we cannot control the performance of these external services that are hosted through ArcGIS Server. We have found through testing and real-world applications that image services coming from ArcGIS Server suffer from performance issues as opposed to a cached image coming from a WMS service endpoint.

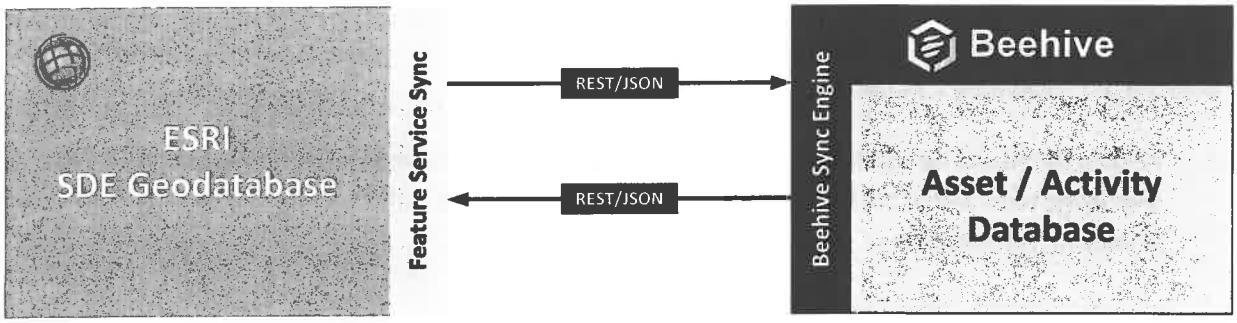
7.2.3.10 Beehive Attachments Through Arcmap

Beehive provides ESRI Toolbox Layer files which facilitate the launch of Beehive stored attachments directly from the Hyperlink feature of ArcMap

This will pass the attachment directly to the computers operating system, so a compatible software will need to be available for this to work

7.2.3.11 Bi-Directional SYNCHRONIZATION between Beehive and Enterprise GDB

Beehive provides bi-directional synchronization through a direct connection between Beehive Sync Services and ESRI FeatureServiceSync.



This integration provides insert/update options for both sides. It relies heavily on carefully controlled reference data to ensure compatibility. In the case of conflict, Beehive will reject and report on those items.

7.2.4 Solar Winds

Assuming that a specifically monitored equipment unit is represented as an asset in Beehive, we will allow for direct launch of Solar Winds UI through direct .exe calls or URL based parameters.

Beehive can also integrate with available REST services for insertion of Events, in much the same way that SCADA integration may work. This requires the Solar Wind REST endpoints be accessible.

Solar Winds also provides accessibility to SQL type queries for both insertion and retrieval from the Orion database. However, we have not scoped that type of interaction.

7.2.5 Granite XP

Through their PACP and MACP compatibility, Beehive is directly compatible with Granite XP. This does NOT require that staff adhere to PACP or MACP compliant defect codes. It only requires the output of a Version 6.05 compliant package, which Granite XP is capable of doing.

7.2.6 Gasboy

Beehive can integrate with Gasboy in two ways:

- Direct launch of Gasboy UI through URL or .EXE parameters
- Injection of Events using Beehive API

These methods assume:

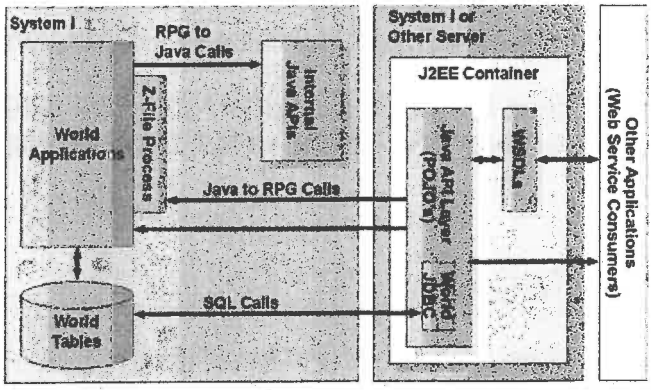
- Defined API from Gasboy
- Common Name/Key stored on the associated asset in Beehive, and with the fuel records in Gasboy

7.2.7 JD Edwards

JD Edwards World Software A9.3.1 provides a well defined and well documented API that allows direct access, both read and write, to most data elements of the system, including:

- Address Book
- Customer Master
- Supplier Master
- Item Master Information
- G/L Account
- Journal Entry
- Fixed Asset Master Information
- Fixed Asset Cost Summary
- Purchase Order
- Sales Order
- Item Master Information

World A9.2 Service Enablement



Common points of integration between Beehive and finance systems include:

- Payroll
- Equipment costs/value
- Purchasing
- Fund accounts
- etc

The challenges of integration with JD Edwards are certainly technical, but may also include elements of:

- Permissioning
- Security
- Firewalls
- Personnel, personalities, and power
- Administrative policies

This proposal presumes that:

- Beehive will participate in any discussions needed to handle these challenges
- Beehive has no actual authority to impact any of them

7.2.8 StreetSaver

PWU intends to use StreetSaver as their collection and analysis tool for Pavement condition. At this time, the desired behavior of an integration has not been established. All integrations require that a common name or Key be established that is shared between Beehive and StreetSaver. An integration might be established through one or more of three methods:

7.2.8.1 Call to StreetSaver interface

Assuming that StreetSaver allows the launch of their application through a command-line or URL that includes the segment ID, Beehive can directly launch that interface.

7.2.8.2 Periodic Data Update

StreetSaver as we know it represents a specific integration challenge in that as far as we know, they do not offer a defined API. Discussions and a single feature indicator on their literature have indicate that they would be willing to allow the download of a data backup periodically. This backup may offer a source of occasional and manual updates to Beehive street segment conditions. This method may be effective due to the infrequent programmatic changes to condition or projected condition metrics within StreetSaver. If this method is selected, it may be best to have Beehive execute the update at hourly rates, rather than a larger expenditure on automated methods that may not be used often.

7.2.8.3 API / SQL interface

Previous discussions with StreetSaver indicate that they utilize SQL Server as their database engine. This opens the possibility of StreetSaver developing direct data sources or APIs which can be accessed directly.

7.2.9 Microsoft Active Directory/Cloud

The primary Beehive management console application utilizes the city's Microsoft Active Directory to authenticate users. Mobile and HTML applications utilize Microsoft Membership Provider for authentication. It is possible to extend on premise Active Directory for cloud based authentication. There are several methods available and any configuration and development in Beehive are covered by this item.

However, this will require cooperation and efforts from city IT personnel, and depending on the method may incur third party expenses beyond Beehive licensing and services. It is assumed that these expenses will be borne by the City.

Exhibit B

Beehive Features and Functions for the City of Lincoln Nebraska

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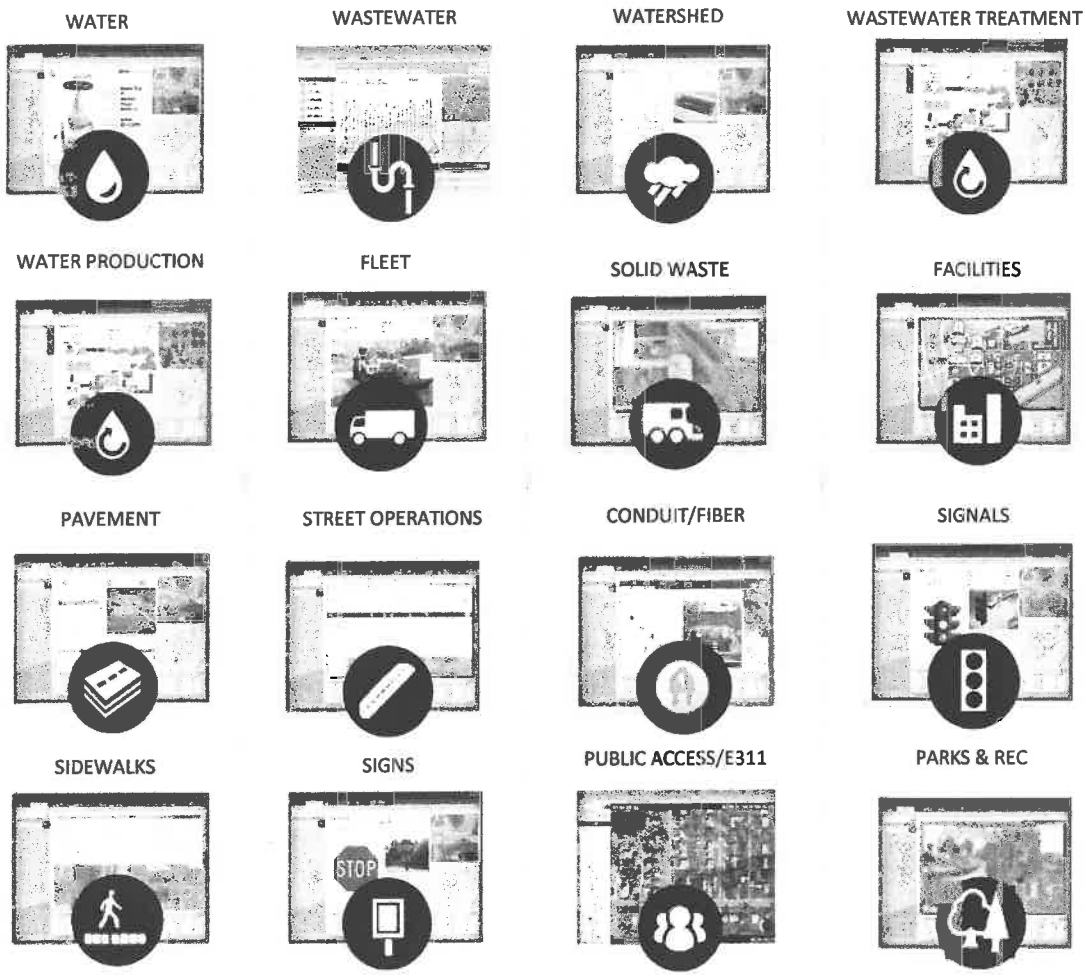
1.1 INTRODUCTION

The Beehive Framework is the architecture platform that our software is built upon. By standardizing on a framework, and not deviating from that, it has allowed our software to be very robust, yet easy to add additional modules onto as needed. Listed below are some of the assets our strong framework provides:

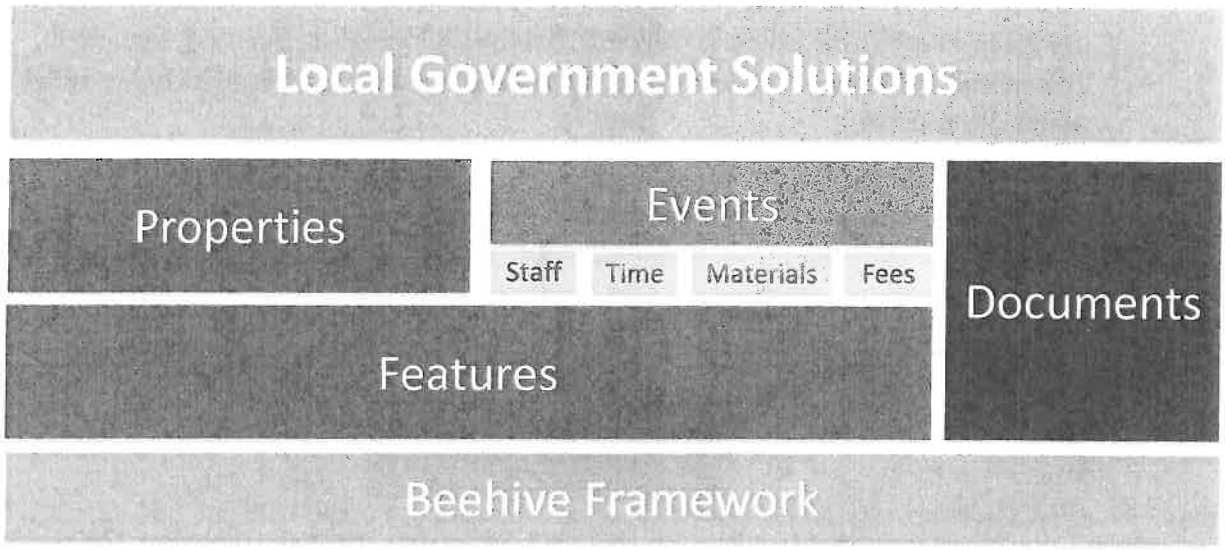
- Keeps a secure register of assets
- Provides multiple methods to navigate to those assets
- Tracks past and future Events on those assets
- Allows unlimited documents and comments to be tied to any asset or event
- Provides flexible security for all aspects of the framework

The net result is an environment that allows the assembly of best-of-breed solutions that address a multitude of issues within an organization, but that all have a common feel, a common administration, and an ability to share information in an unprecedented way.



1.2 BEEHIVE FRAMEWORK

The Beehive team has developed an enterprise level framework that is capable of managing everything from small municipalities to world-wide construction companies. This is the primary base for everything that occurs inside of the Beehive applications.



Generally, the Beehive Framework consists of a set of components that work together to present the best solution for any problem.

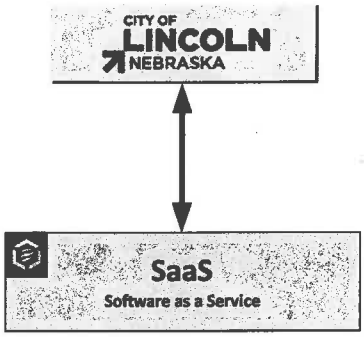
Beehive approaches solutions in the following way:

- Create a very simple framework that handles a complex world
- A User Experience that feels good every day
- Completely rethink the role of spatial data in infrastructure management
- Provide ongoing innovation, service, and support

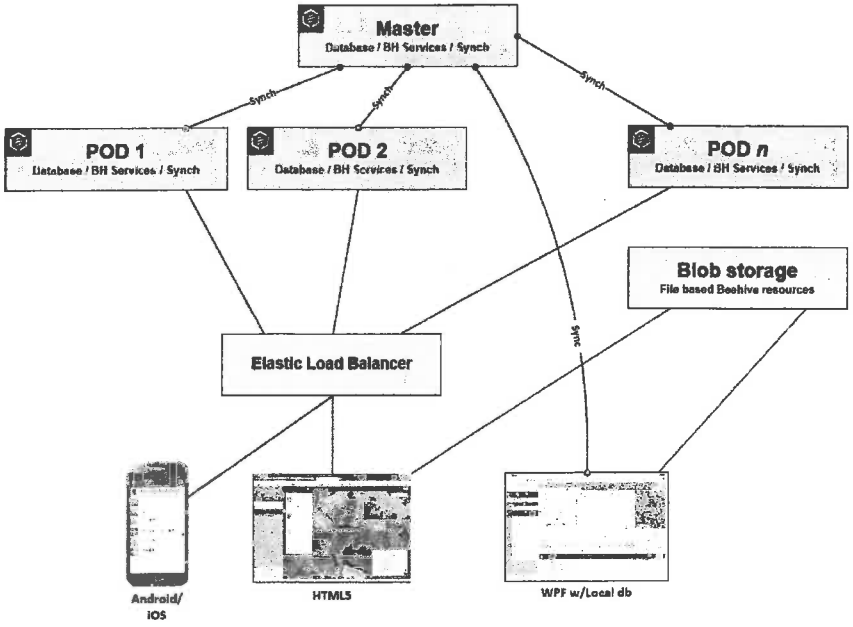
1.3 ARCHITECTURE

Beehive is a Software as a Service (SaaS) solution, providing full functionality without the need for complex hardware and system resources. Advantages include:

- Accessibility – Get access anywhere
- Resiliency – The ability to continue to perform, even with multiple failures of network or hardware
- Disaster recovery – Accessibility can be restored quickly after an IT or facilities damaging event
- Evergreen – Beehive is updated continuously, providing for a fresh experience at all times
- Cost control – predictable and stable costs for backend resources, even as those resources are continually updated.



Beehive is an n-Tier application that interacts with a SQL Server data structure via services. The primary platform is based on Windows Presentation Foundation (WPF) and auto-updates when a new version is available.



Database: Microsoft SQL Server 2014 or 2016

Server: Beehive utilizes Windows servers from Microsoft Azure and Amazon EC2

1.3.1 Backup Procedures

Data – Beehive data is backed up in the cloud every night, and is stored in a separate cloud location. While the backups we perform are robust, the SLA for backups is only as good as the current Amazon or Azure SLA.

For a level of protection beyond that, the city may wish to perform additional backup as part of their standard backup procedures. There are several methodologies to support this, including:

- Direct download from cloud based storage
- Direct backup from BeeBox described in other portions of this proposal

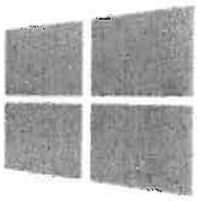
Documents – Beehive cloud based file storage creates redundant copies in three(3) nodes within the cloud region. Due to file size, performance, or other factors, PWU and PRD may choose to store all documents on premise. In that case file backup can be performed in whatever manner the city deems appropriate.

1.4 USER AUTHENTICATION

Authentication of individual users depends on the specific Beehive instance:

- **Primary Asset Management console**
  - ✓ Active Directory

- **Mobile or HTML5 based applications**
  - ✓ Azure Active Directory
  - ✓ Microsoft Membership Provider



- **Additional security**
  - ✓ Beehive does not store any passwords
  - ✓ All communication between application and server is encrypted using SSL
  - ✓ Permissions for all aspects of user access are controlled (see Permission Features below)

1.5 SECURITY / PERMISSION MODEL

The Beehive platform provides extremely granular control over staff access to data. The Beehive permission model allows the following:

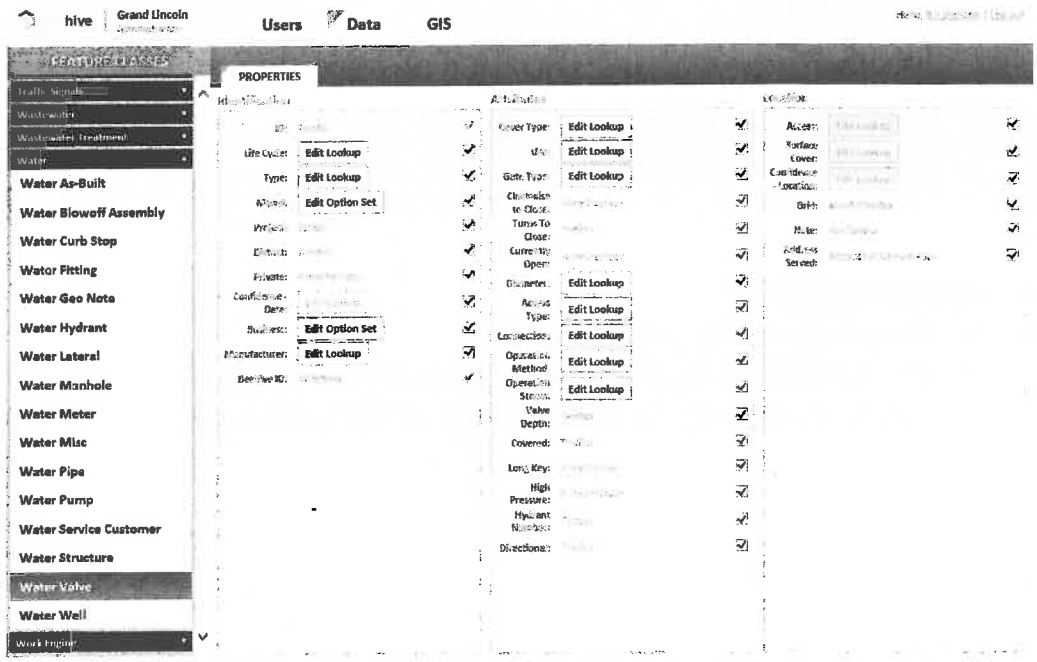
- ✓ System Administrator can administer Agencies (functional groups)
- ✓ System Administrator can assign Feature Class ownership to Agencies
- ✓ System Administrator can add Event Types to a Feature Class
- ✓ System Administrator can designate person(s) as Agency Administrator(s)

- ✓ Agency Administrator can add people
- ✓ Agency Administrator can add groups
- ✓ Agency Administrator can add or remove people from groups
- ✓ For each Group, Agency Administrator can allow a variety of rights for a Feature Class
  - o Search, Map, GeoEdit, View, Add, Edit, Delete
- ✓ For each Group, Agency Administrator can allow a variety of rights for an Event Type
  - o Search, View, Add, Edit, Delete

1.6 CLIENT FACING CONFIGURATION

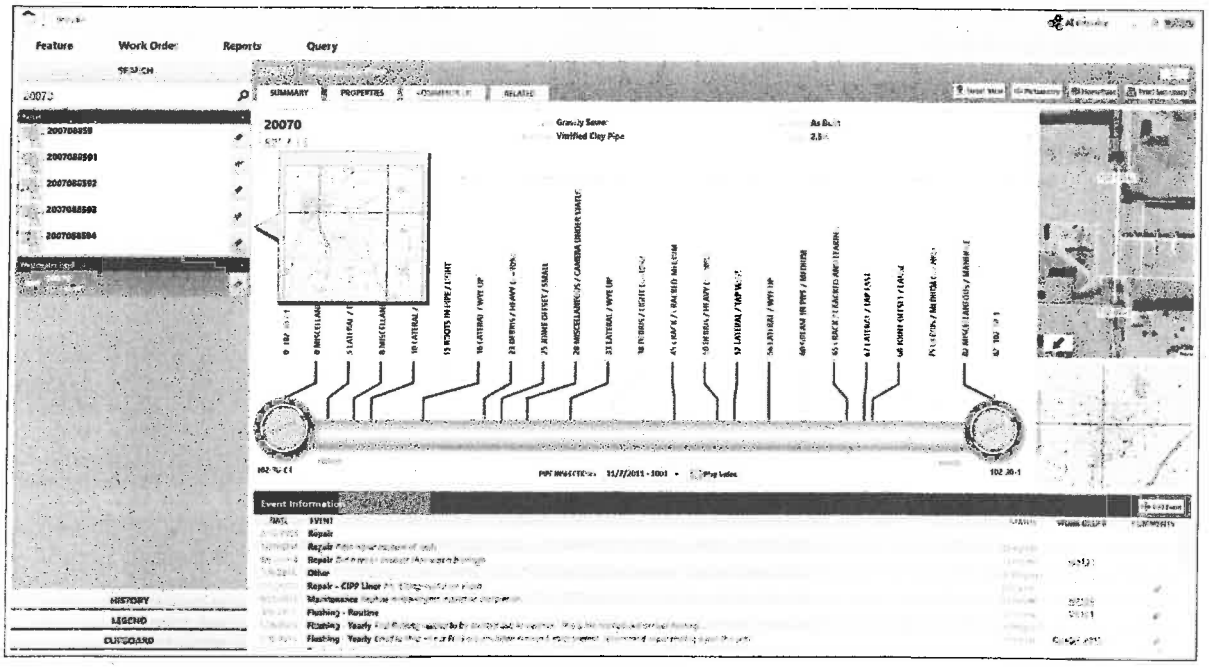
Agency Administrators can directly edit certain configurations related to that agency, including:

- Visibility of a specific property (turn things off you don't use)
- Values available in drop-down options
- Availability of specific Asset Classes or Event Types
- Cross reference for GIS synchronizations



1.7 USER INTERFACE

Beehive provides a consistent user interface for all assets. This interface is a simple menu to all asset data, designed to display the information you need when you need it.



The Asset summary tab provides a single glance at:

- Important properties of the asset
- Location within the community
- Selected asset on a dynamic map
- Complete history of activities on the asset
- Contextual information specific to that asset

1.7.1 Display requirements

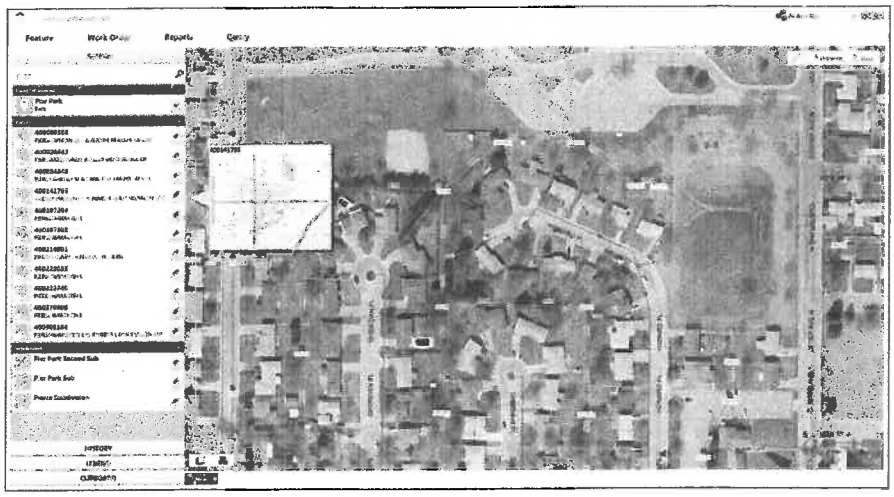
Beehive requires a minimum resolution of 1024 x 768. However Beehive will take advantage of higher resolutions in several way:

- Expand map areas
- Expand Report canvas
- Expand Query Grid access

1.7.2 Search

Beehive provides a powerful search engine which is the primary navigation tool for Beehive. This is a single entry field that allows the user to enter search text and return results. Selection of any result will navigate the map elements of Beehive to that location. It can also open corresponding records such as work orders, events, or feature summaries.

If there is more than one result, the user can hover over the result, which then brings up an Overview map of the city, with crosshairs of the location for that search result.



This engine allows us to configure search for a variety of parameters. Typical configurations include:

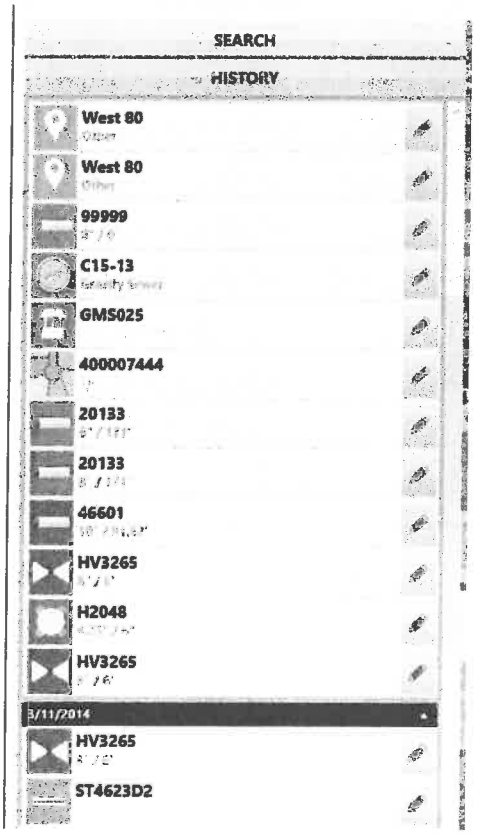
- ✓ Asset IDs - As defined by the client
- ✓ Address
- ✓ Parcel number
- ✓ Parcel owner
- ✓ Intersection
- ✓ Points of interest
  - o Schools
  - o Parks
  - o Government buildings
  - o Major businesses
- ✓ Section/Township/Range
- ✓ Subdivision

Elements that can be configured include:

- Searchable Feature Classes
- The icon that represents the class of search result
- The primary and secondary text that shows in the search result
- The order of the Search categories

1.7.3 History

The History tab shows a running list of the records this User has viewed in the last few days. This is intended as a convenience to the User. There are no configurable elements of his feature.



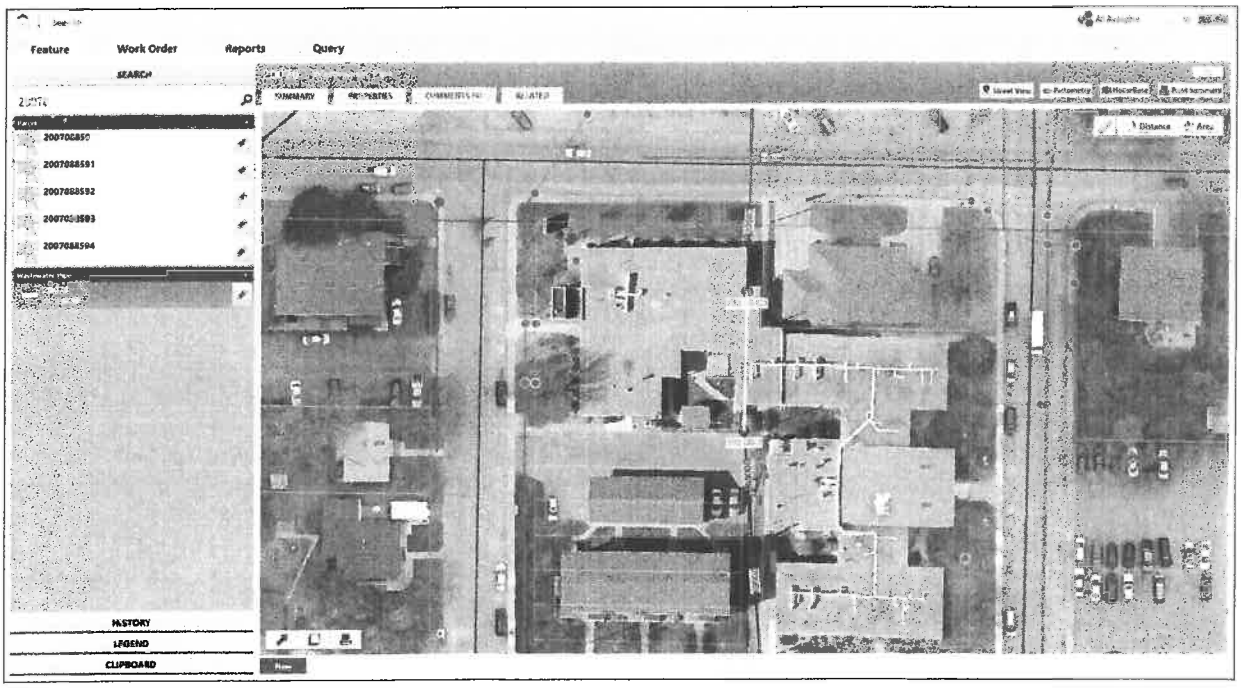
1.7.4 Query Grid

Another common navigation method is to use the Beehive Query Grid, outlined in the Analytics section below. This method allows the user to filter to a very distinct set of records that can be either Asset based or Event based. Once a selection set has been returned via the Query Grid, the user can then select any of the records displayed and Beehive will navigate directly to that record. Beehive will navigate from this grid by either the Asset or Events tied to the Asset.

1.7.5 Select Features

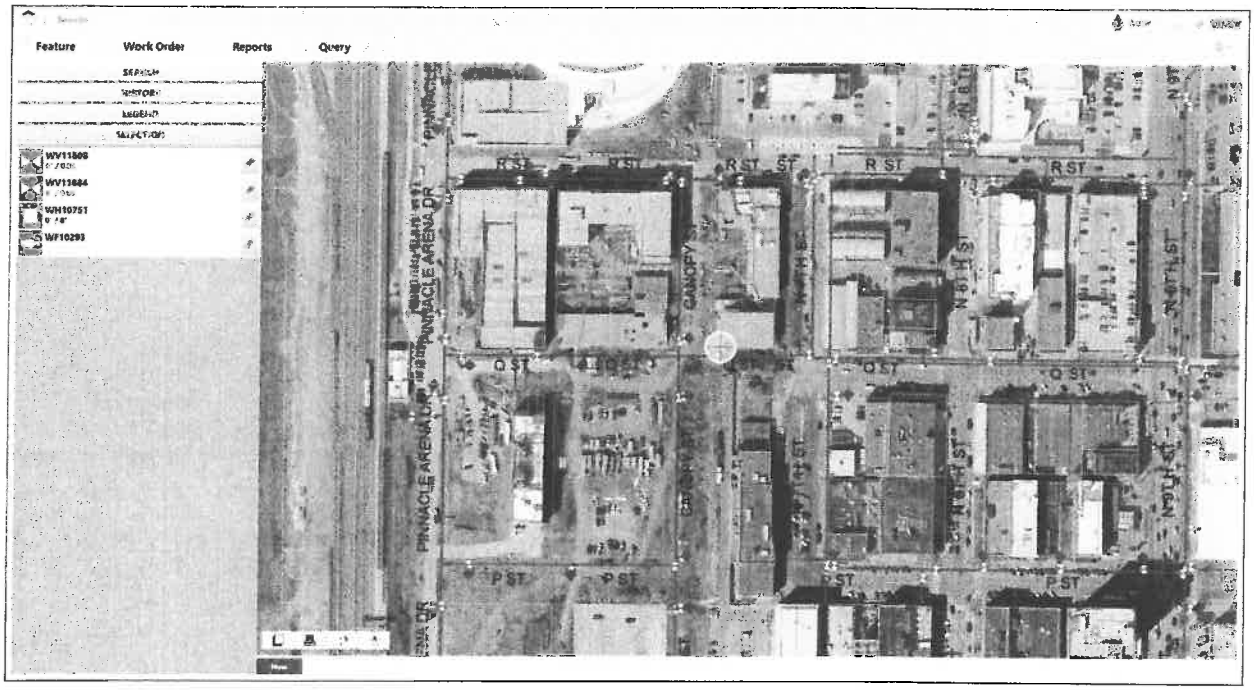
Through the map interface in Beehive, there are multiple ways a user can get to the appropriate feature. By using the navigation tools within Beehive, the user can get to known locations around the feature they are looking for through points of interest, street intersections, etc. The user can also navigate directly to a known asset identification number.

Once at the specific feature, the user simply clicks on the feature on the map to select the feature. Once the feature is selected, Beehive takes the user to the summary page for that feature class.



1.7.6 Multiple Feature Selection

As with all asset feature classes, there can be areas that are confusing on a map with multiple features located close together. For example, a fire hydrant connection with a valve and a lateral. In Beehive, if you click on the map in an area where there are multiple features, the application will search within a pre-configured buffer of the users click point. At that time, if there are multiple features found, Beehive will display all of the found features under the selection tab in the left hand pane of the application.

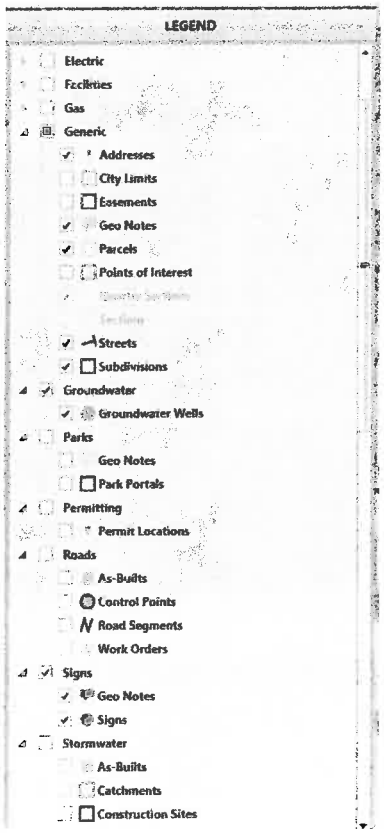


At this point, the user then has the ability to select from the list the Asset they were initially attempting to select.

1.7.7 Legend

In Beehive, standard legend controls are available to all users of the system. The legend allows users to specifically tailor their map to reflect the layers they are most concerned with. Any of the layer items can be configured to be either on or off by default.

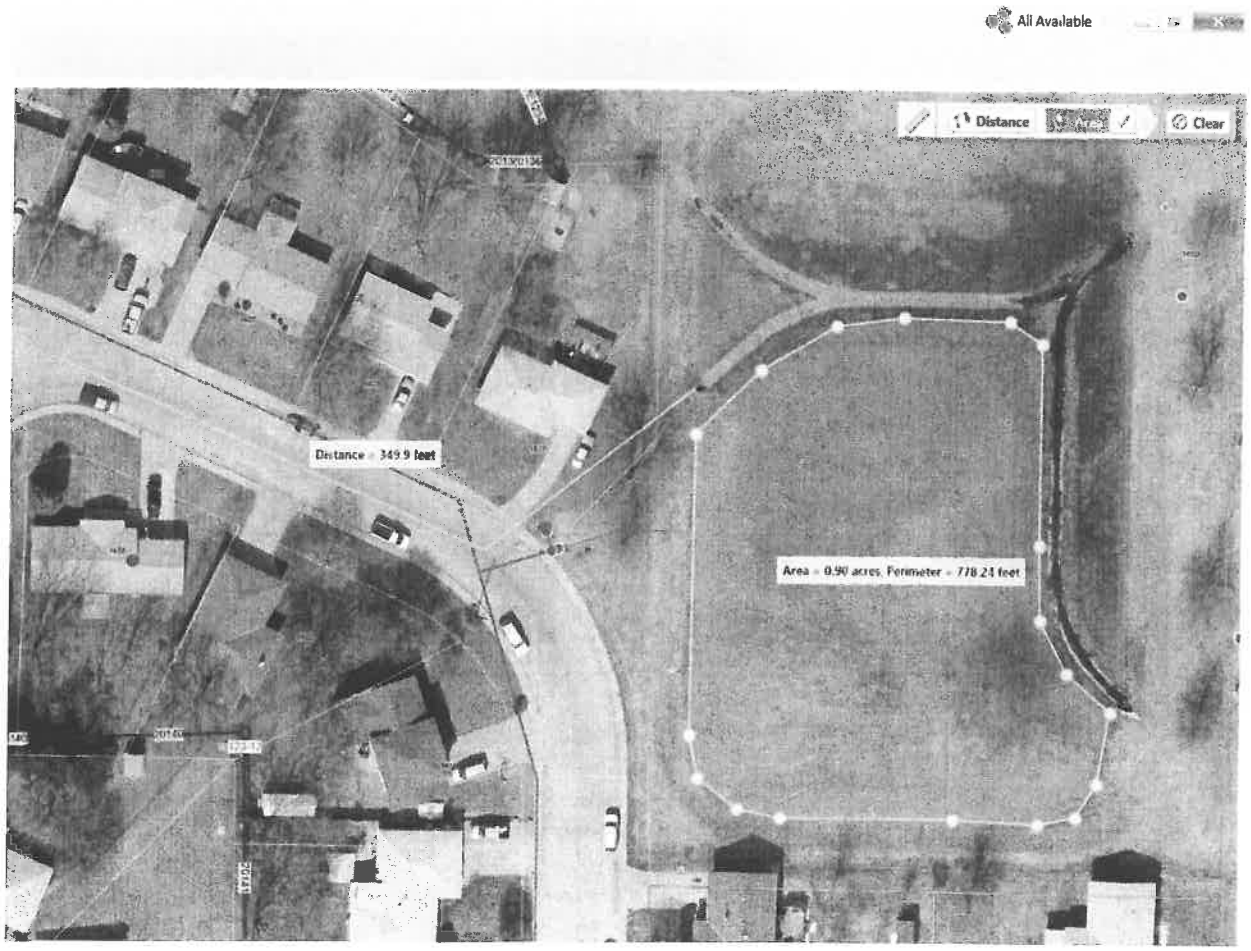
As with other aspects of Beehive, the legend is also driven by the Beehive permission model. If a user does not have access to a certain layer or agency, those layers will not be shown in the legend as it is seen by that user. This can really help to focus specific users on the tasks they are assigned to manage.



1.7.8 Measurement Tools

In all map views of the Beehive application, the user is able to launch the measurement tools at any time. The user can select between both measuring distances as a line or areas as polygons. As shown in the below image, users can measure multiple items on the screen at the same time, both distances and areas, and leave them on the map as a display layer until they are cleared.

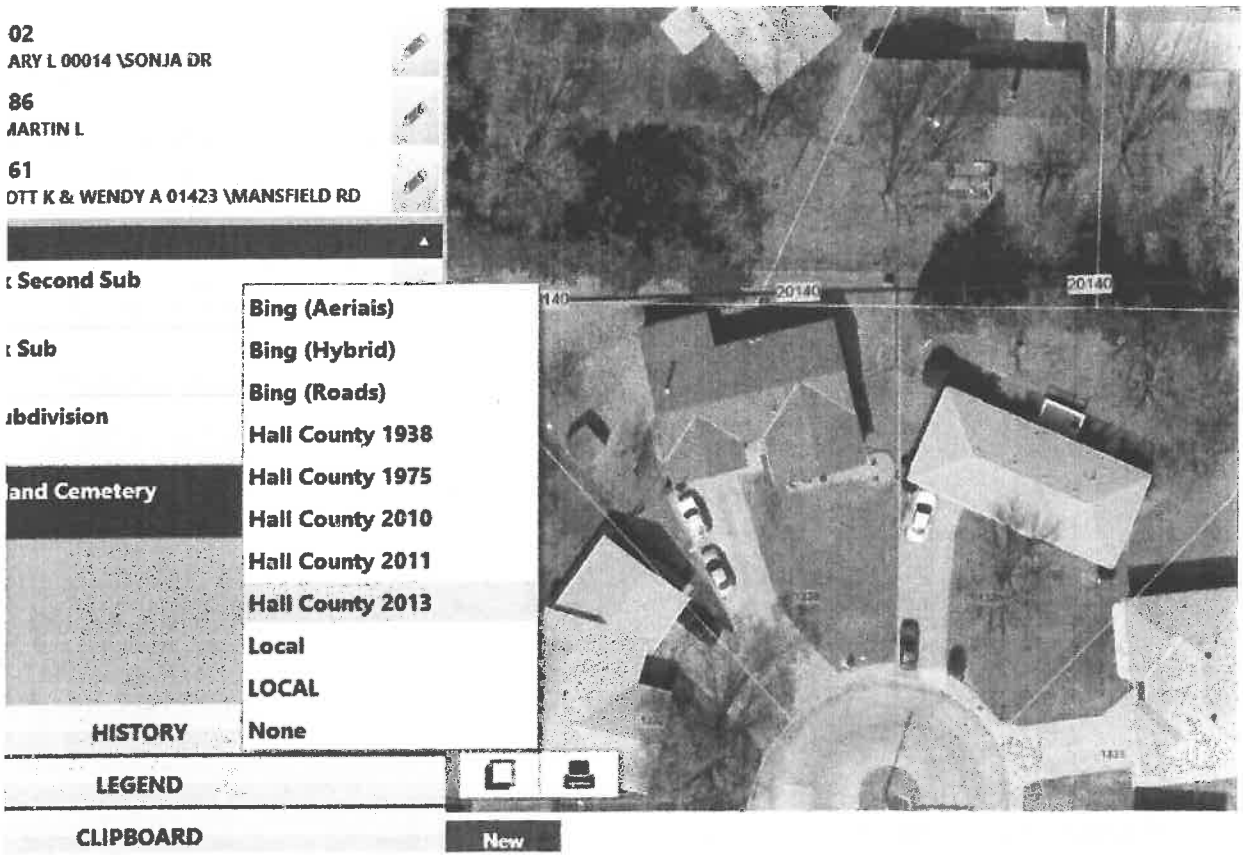
As the user is measuring, they may either be at a large map scale or zoomed in closely. The user is able to change the measuring units by clicking on the measurement. The measurements can be changed to units like feet, miles, acres, square feet, kilometers, etc.



1.7.9 Background Layers

Beehive can consume aerial imagery, or background data sets, from multiple locations and sources. Client specific images can be leveraged in the map display. There can be multiple tiled image services consumed within the application so the user can reference the most current imagery as well as any available historical images.

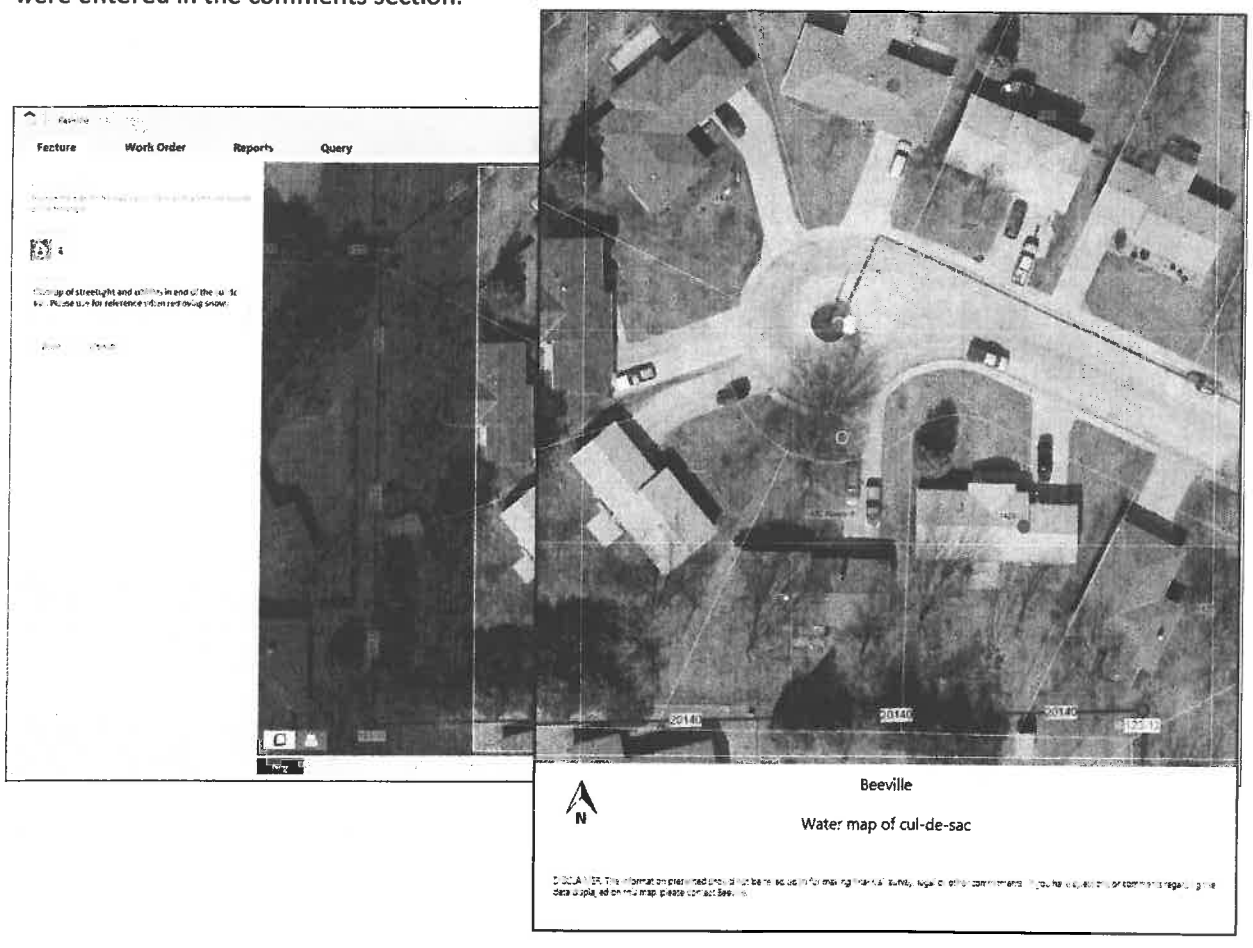
Along with local image data, Beehive is pre-configured to consume map services, such as Bing's map layers. These images are a good substitution for potentially lower resolution local images. Along with Bing's map layers, Beehive can also leverage ArcGIS Server Image Services as background data, as described in the ESRI Integration section below.



1.7.10 Map Printing

At any point in the Beehive map, the user can launch a print window. Once this is opened up, the user can select either landscape or portrait page orientations. The user will then see a highlighted area on the map that represents the currently selected page size and orientation. At this point, the map is still available for zooming and panning so the user can select the most appropriate view for the intent of the map they are attempting to produce.

After the map is showing the correct information, the user can then enter any notes or text in the comment section of the print window. Once that is complete, the map can then be printed. Beehive has developed a pre-defined map template that includes a north arrow, client logo, disclaimer, scale bar, and any notes that were entered in the comments section.

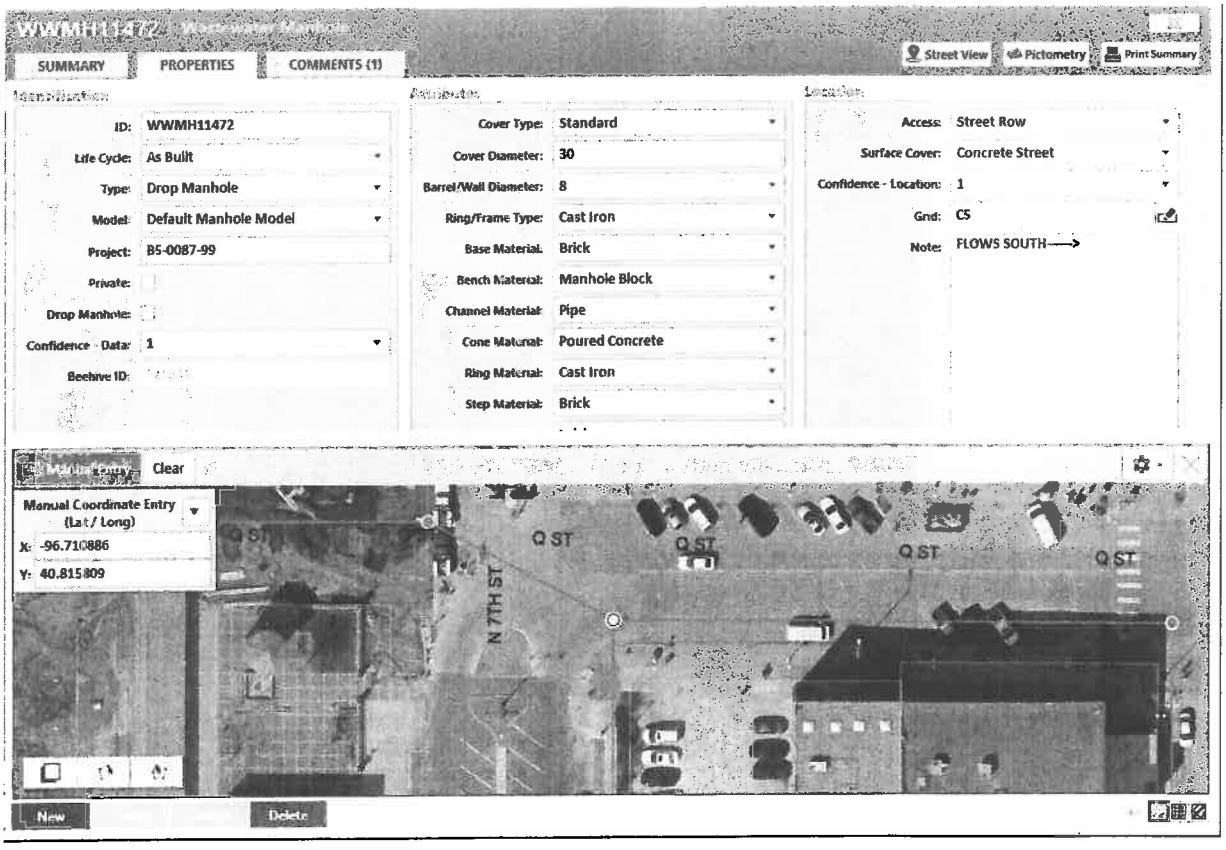


1.7.1 Drawing Tools

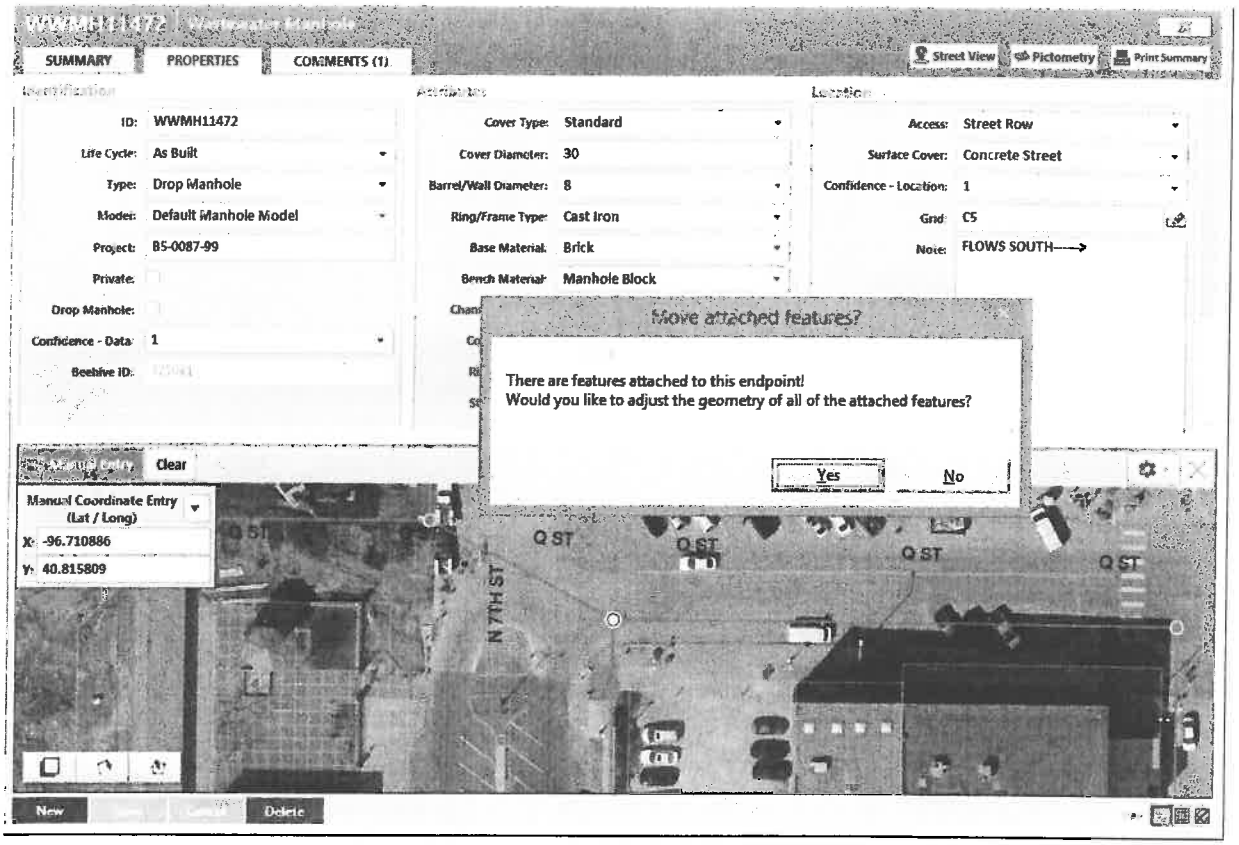
Beehive provides a powerful, yet simple to use suite of drawing tools inside of the Beehive framework. These tools are used to manage spatial data inside of the Beehive applications without the need for additional third-party drawing or map editing tools. This can provide invaluable to staff who are tasked with updating the location of a valve, creating spatial work orders, or any other map editing functions. The drawing tools inside of Beehive provide a solution to this does not require any additional software licensing or applications. These tools are described in detail below.

XY Point Entry

The XY Entry tools allow users to enter a point based on a location that can be derived from a GPS device, engineering plans, etc. The data can be loaded in either Lat/Long, State Plane, or even the custom coordinate system as defined by the City of Lincoln/Lancaster County.



When updating a point location, Beehive does ensure that network connectivity is maintained during these changes. For example, a user moves a manhole location to the correct place and all connected pipes will move with it. This network connectivity is managed as part of the underlying database and does not require any additional set up or configuration to maintain.



Polyline Feature Editing

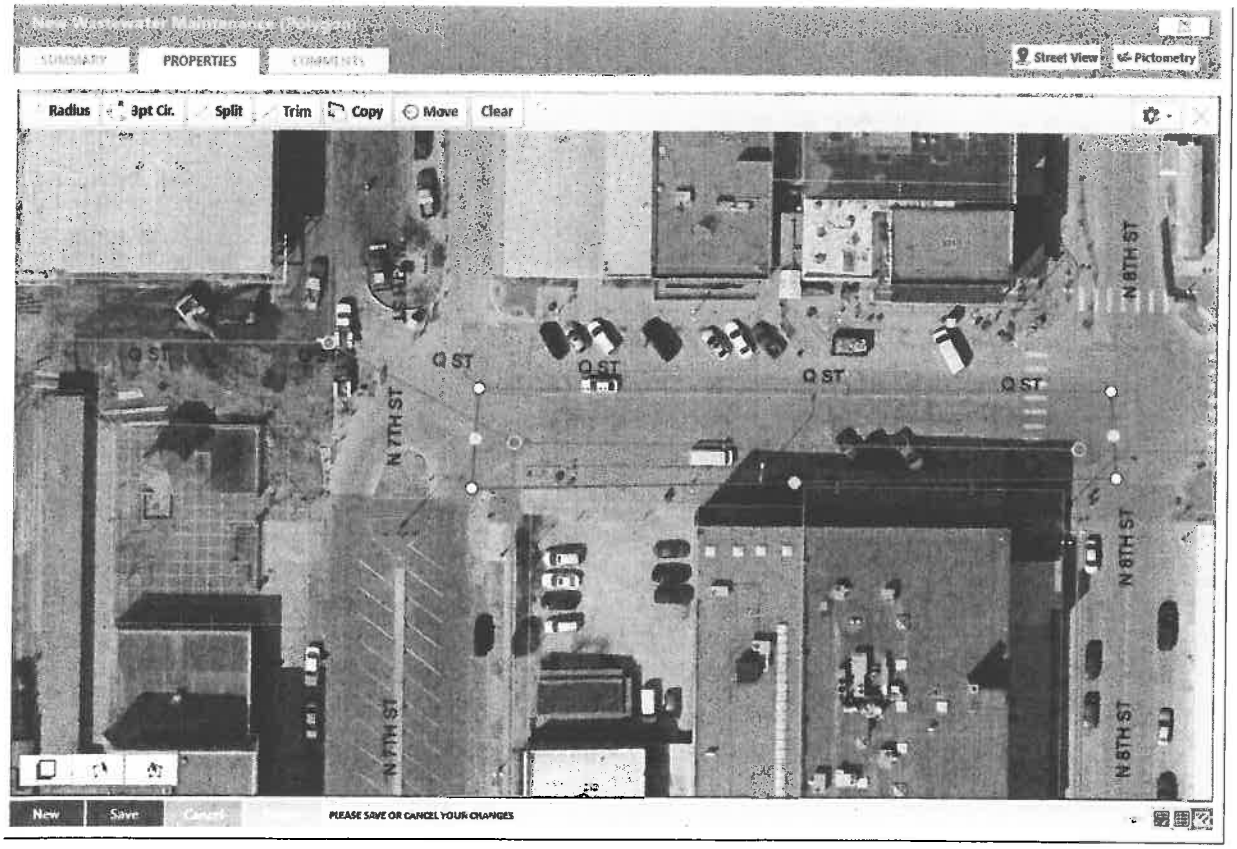
When editing a polyline feature inside of the Beehive framework, there are an additional set of tools available to the user. The tools know what type of feature you are currently editing and update independent of any user interaction. This functionality puts the tools the user needs in their hands quickly without having to navigate a series of menus. The polyline editing tools allow users to manipulate the geometry and add/delete vertexes of the line. Along with those freehand editing tools, Beehive also provides the following Geoprocessing tools:

- Trim
- Move
- Split
- Flip Line Direction

Polygon Editing Tools

Similar to the Polyline Editing Tools, the Polygon Editing Tools allow the user to create and modify polygon data inside of the Beehive platform without any additional tools. Also, when a user is working on a polygon, the Beehive platform automatically adjusts the editing tools for the specific polygon updating functionality. This again happens with no interaction from the user. These tools can prove very beneficial to users in editing as-built locations, building outlines, etc. Along with the capability to edit single vertexes and adding/deleting portions of the geometry, the Beehive platform also provides the following Geoprocessing tools:

- Radius
- 3-Point Curve
- Split
- Trim
- Copy
- Move

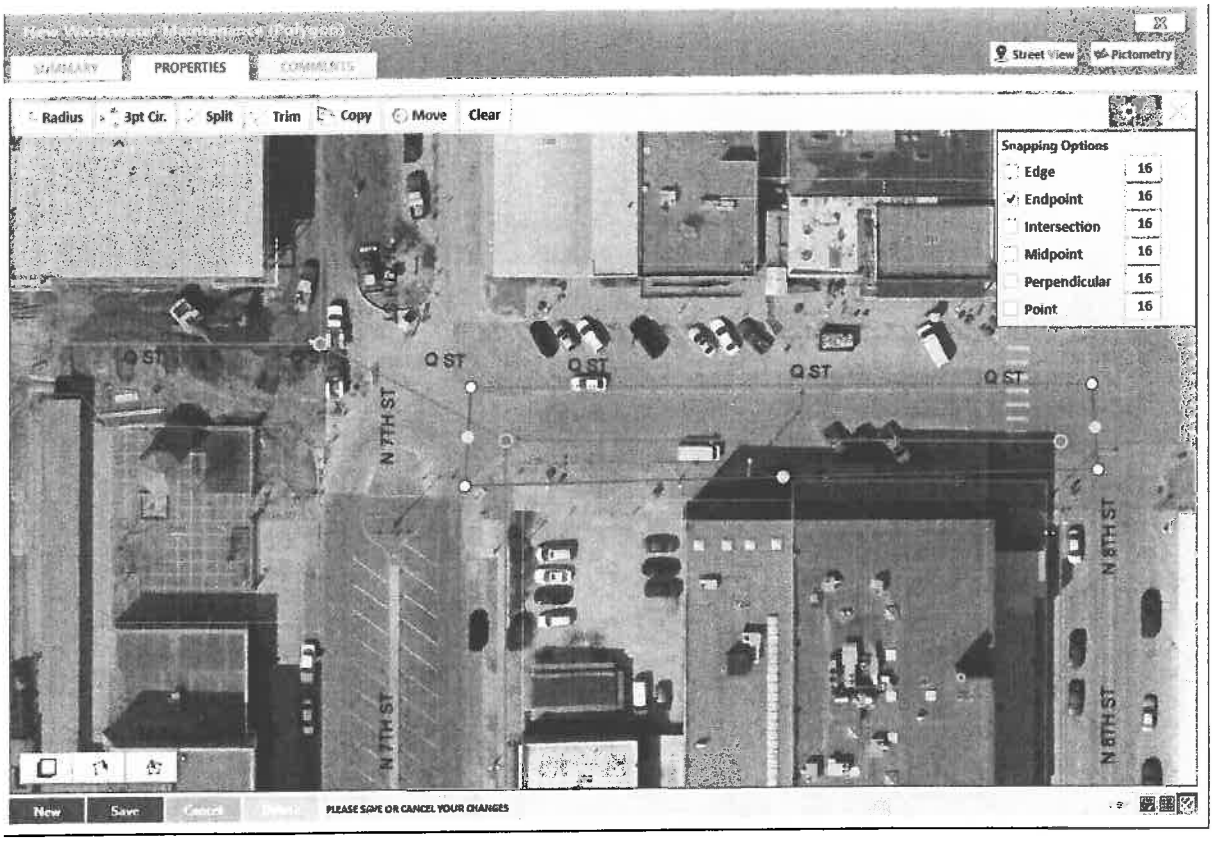


Snapping

To further enhance powerful drawing tools inside of the framework, Beehive provides a fully managed suite of snapping tools. The user can configure the type of snapping they will be using, enable/disable the snapping and set a snapping tolerance for their editing session. The following snapping tools are available to the user as they are editing asset geometry inside of Beehive:

- Edge
- Endpoint
- Intersection
- Midpoint
- Perpendicular
- Point

By leveraging a combination of these snapping environments, the user has full control over any type of snapping they could possibly configure.

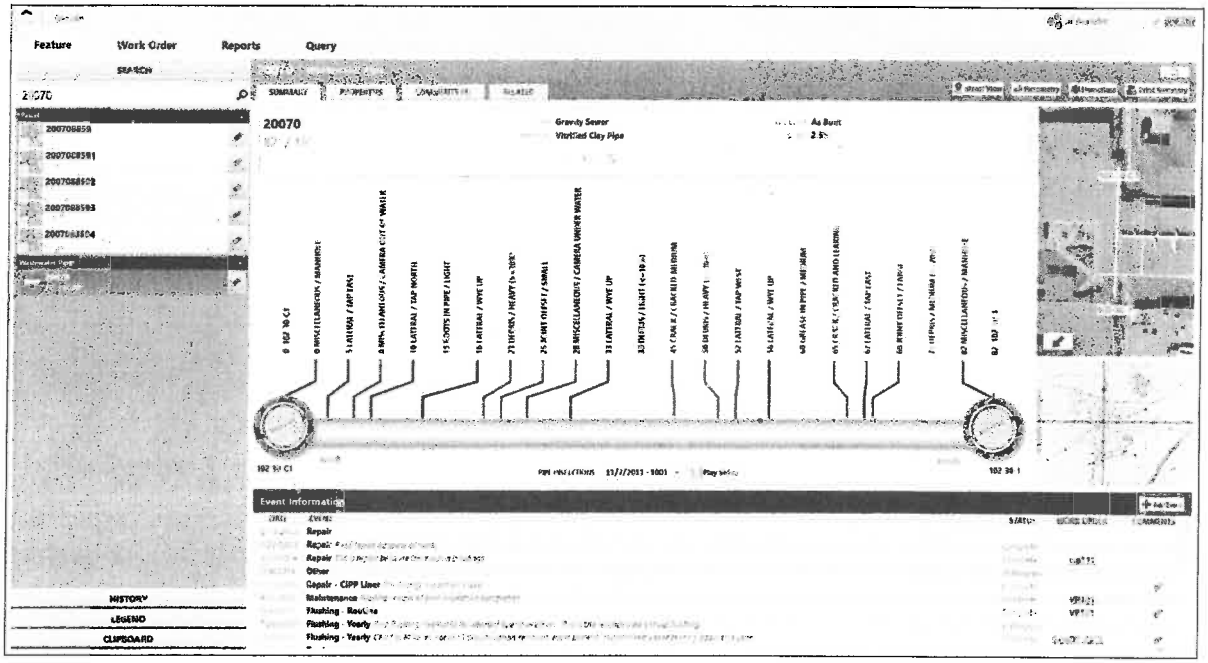


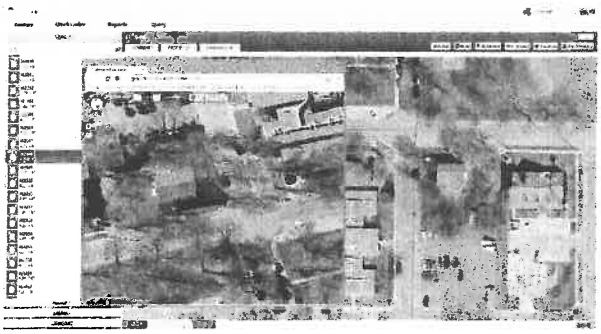
1.8 ASSETS

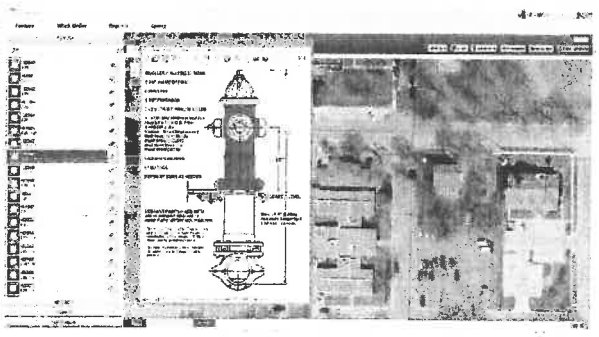
Beehive provides a consistent user interface for all assets. This interface is a simple menu to all asset data, designed to display the information you need when you need it. For each Asset Class, properties are defined, which represent those elements about the feature that tend to remain stable. By default, these properties are divided into three categories, Identification, Attributes, and Location.

1.8.1 Summary Page

Each Asset Class can be configured to use one of several defined Summary templates. The available templates cover a variety of use cases.

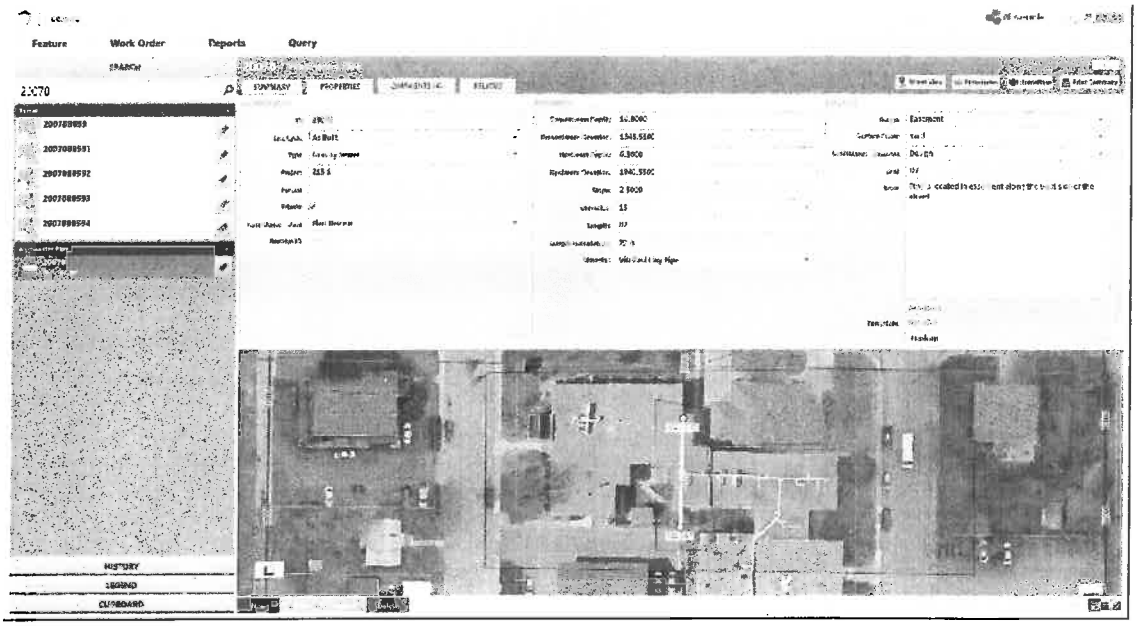






1.8.2 Properties

The Properties tab shows all of the Asset properties, and allows direct editing for authorized users. The Properties tab can be displayed in three modes: Properties, Map, or Split. These modes can be switched with a simple click. The Map is included as part of the property tab because the geometry can be directly edited by authorized users.



1.8.3 Control Types

Beehive Asset properties can be of a variety of types, and are represented by a variety of form controls, including:

- ✓ Text box
- ✓ Autocomplete Combo-box
- ✓ Checkbox
- ✓ Radio buttons
- ✓ Date / Time
- ✓ AutoFill
    - o This is a special type of control that can be configured to auto-fill data based on:
        - Spatial queries of underlying data
        - Tabular queries of any underlying data
        - Combinations of these two

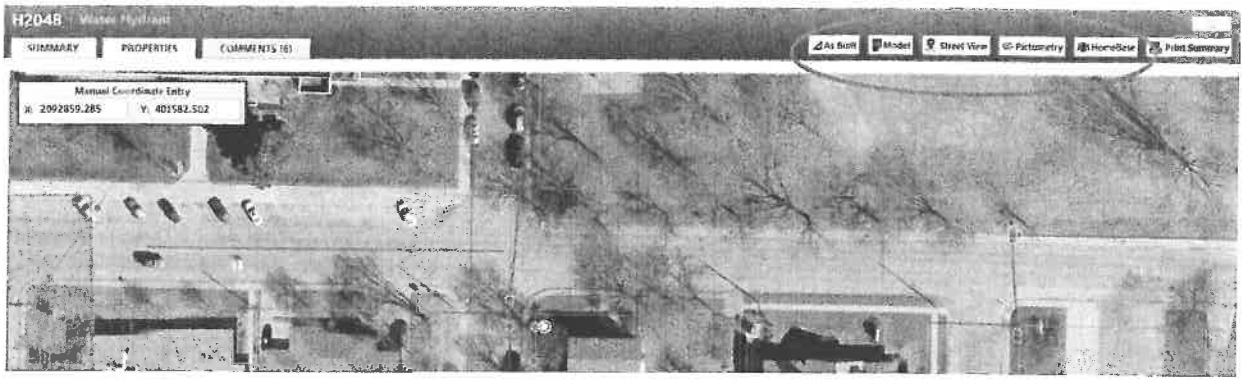
Attributes

Feeder: F-33

F-33

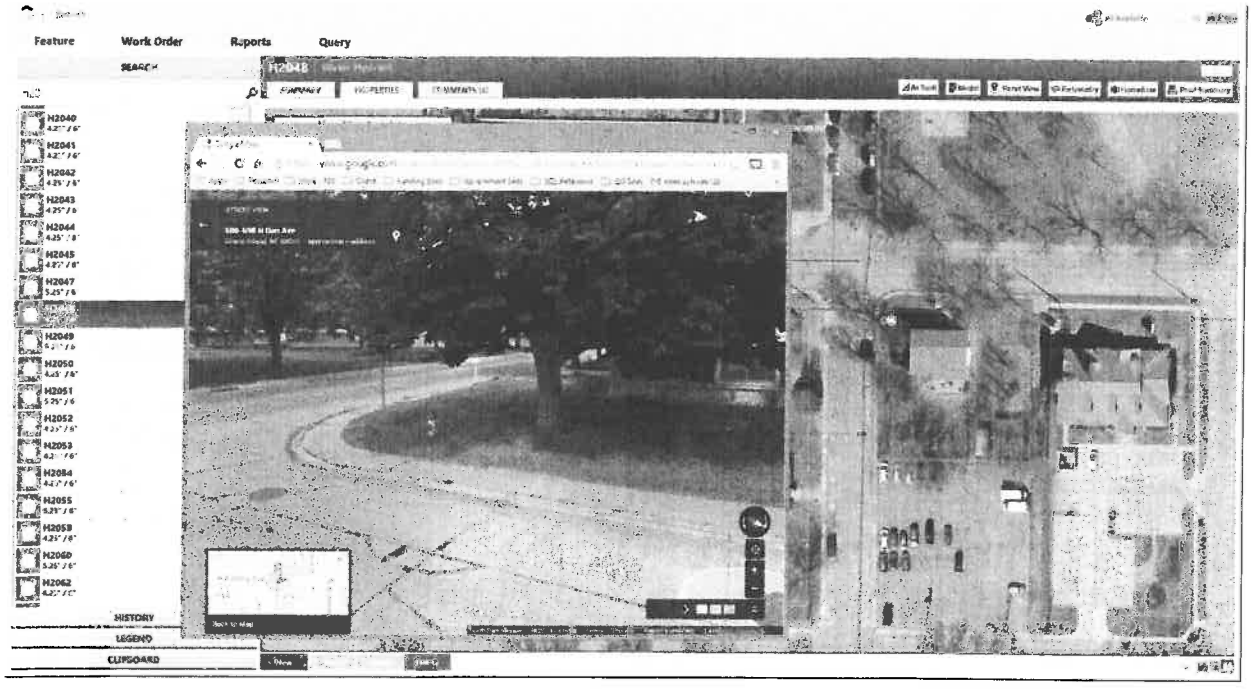
1.8.4 Special Navigation

Beehive Nav Links are a feature for calling external tools from within Beehive based on the current feature or location. These provide direct and immediate access to useful tools. Some examples below:



1.8.4.1 Google StreetView

This Nav Link take you to the StreetView for that location, and even turns the camera to point to the selected feature or location. Zoom, pan, and tilt are then available for adjusting your view.

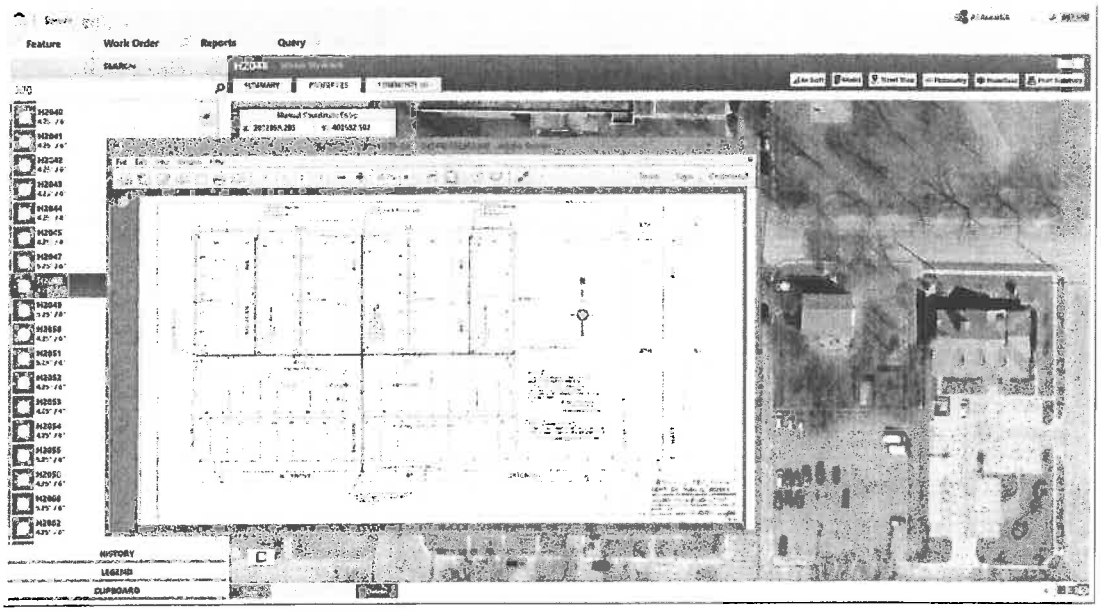


1.8.4.2 Pictometry

If available, Beehive will integrate directly with Pictometry to display oblique angle high resolution aerials at the point of interest.

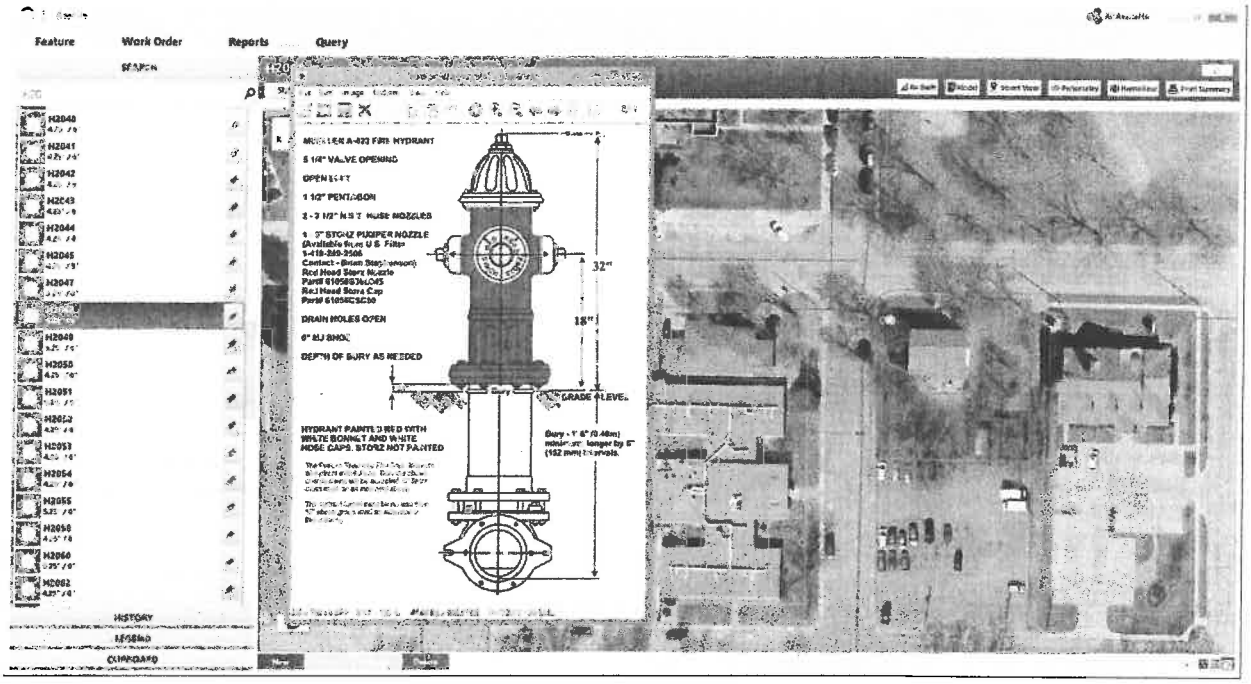
1.8.4.3 As Builts

Each the user selects an Asset, Beehive determines if an As Built drawing is available and displays a button. Selecting that button will launch the As Built for the user.



1.8.4.4 Model Documentation

For any Asset that tends to have a specific Manufacturer and Model associate with them, you can create a library of specification, parts catalogs, or operations manuals to be associated with that Make/Model. This provides immediate access to important documentation without digging through the file cabinets.



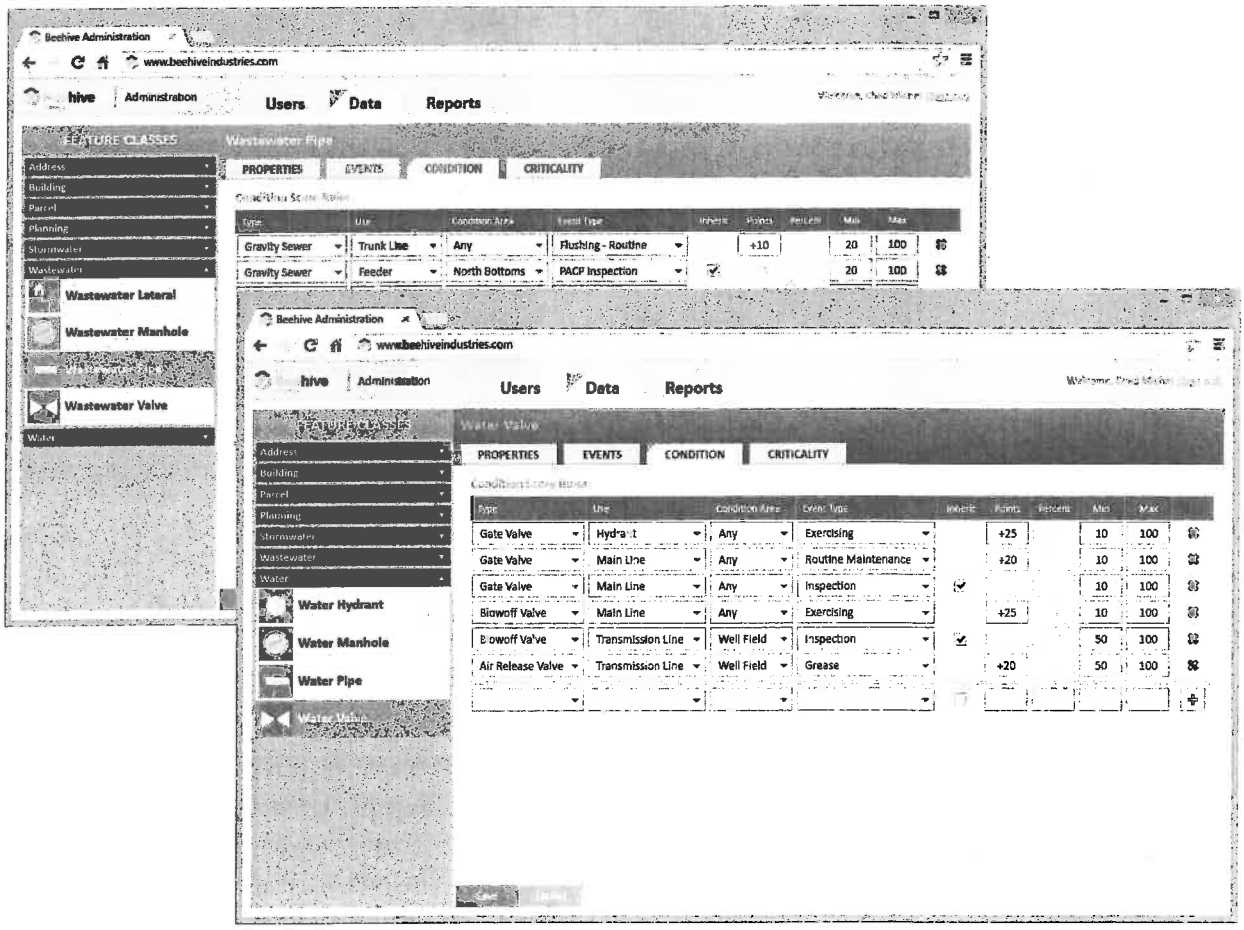
1.8.5 Condition Assessment

Within the Beehive platform, Beehive has built in support for event based conditional assessment of assets. For example, a Wastewater pipe has a conditional rating of 50 and a crack is located within the pipe. An event is created to represent the crack, and the condition of the pipe automatically goes down based on user defined logic. Conversely to that, if that same pipe is then repaired and then lined, the condition rating of that pipe will increase.

Along with event driven conditional assessment, the scoring can be configured by the system administrator to allow for overwriting of the conditional rating based on a very specific event type. For example, a PACP pipeline inspection will create a specific condition evaluation based on the NASSCO standards. The conditional assessment tools in Beehive can take direct advantage of this and allow for overwriting of other conditions based on the PACP conditional assessment.

Beehive provides flexible configuration of event based condition impacts. This allows independent configuration of impact by:

- Asset class
- Asset subclass
- Use
- Condition area (non-homogenous condition behavior based on location)
- Event type (Repair, reline, cracks, depreciation, etc)



The impact can be described in several methods:

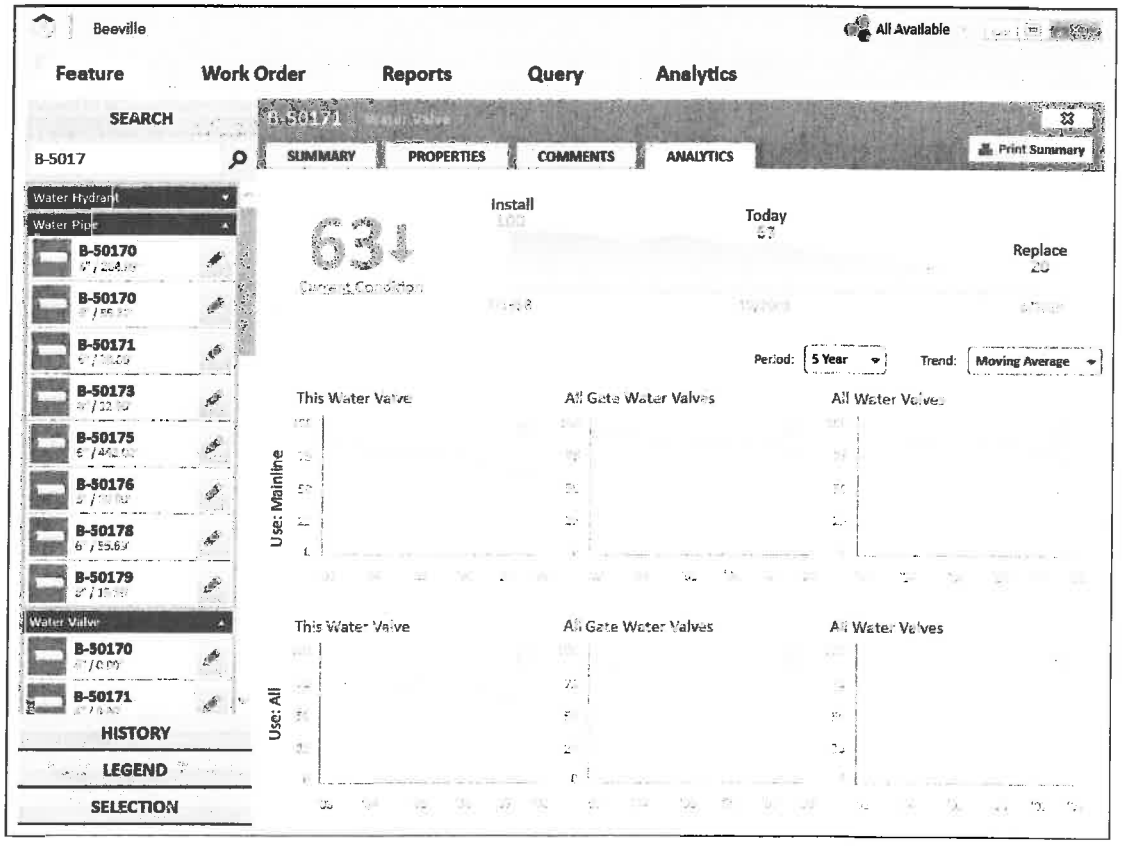
- **Inherit** – Reset the current condition based on the specific event. This works well for comprehensive inspections, or major rebuilds
- **Points** – Adds or subtracts a specific number of points to the asset
- **Percent** – Impacts the current condition score by a specific positive or negative percentage
- **Min** – Establishes a "floor" to the condition of a still-functioning asset
- **Max** – used much less frequently, but sets a "cap" to the condition of an asset

Condition ratings can also be developed to take into account specific uses of the asset and also areas of the community based on the underlying geometry. This can then feed into criticality assessments based again on the use and area. For example, a pressure release valve on a transmission main coming from the well field will have a higher criticality and therefor a different condition curve than a curb stop on a distribution line.

Criticality is configured and utilized in much the same manner, allowing weighting of criticality based on:

- Asset Class
- Asset subclass
- Use
- Location
- Accessibility

This data can then be used to help build analytic maps based on asset condition and help to plan projects for upcoming years. The conditional assessment function can be set up on any of the existing asset classes within the Beehive platform. Feature specific dashboards give context to current conditions.



1.8.6 Relationships

Beehive allows several different type of relationships between Assets.

1.8.6.1 Associated

This is provided to create a real, but light association between two Assets. This association allows certain data such as cost and time to be aggregated, or allows assemblies of Assets to be considered as one unit.

1.8.6.2 Genealogy

This is intended to track the changing location of a single Asset. Provides access to Events on a previous Asset that occupied the same location and the same function. Typical use would be for component tracking inside of an asset hierarchy.

1.8.6.3 Related

This is a relationship defined in a more ad-hoc way. When the User selects an Asset, the Related tab may show other Assets, Events, Work Orders, or Requests that relate in any way to the selected Asset.

1.8.6.4 Portals

Portals are a unique feature of the Beehive platform. Portals allow the Beehive system to function as multiple applications through one interface. Portals allow the user to control and limit the amount of data that is returned within the search results and map based on a spatial "Portal" that is a window into another level of data. By leveraging the portal, it allows users to keep a finer level of detail on specific data sets that can be called and pulled whenever needed, however do not get in the way of normal navigation and map performance.

Some example uses of portals can include:

- ✓ Wastewater Treatment Plants
- ✓ Water Treatment Plants
- ✓ Electrical Generation Stations
- ✓ Cemeteries

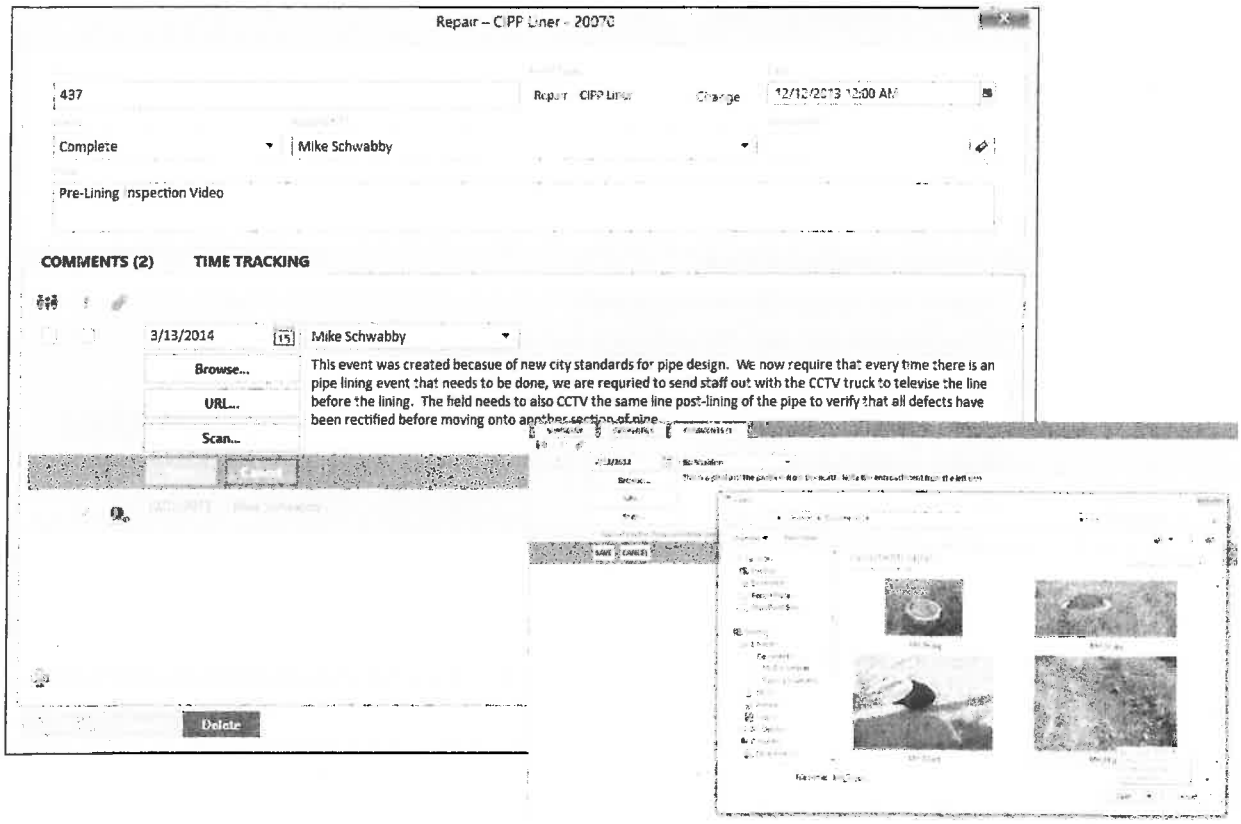
1.9 DOCUMENTS / COMMENTS

Beehive allows an unlimited number of Comments and Attachments on any Feature, Event, Work Order, or Request. Comments can be up to 4000 characters.

Attachments can be added using three different methods:

- Browsing your computer, network, or camera using a standard file dialog
- Scanning if you have a TWAIN/WIA scanner attached to your computer
- A URL referencing a web site, or other browser based application

Each comment or attachment can be designated as Public if desired, and can also be tagged as Important, which changes the background color of the comment and associated tab.



1.9.1 Attachment Launch

When a user selects an existing Attachment, Beehive passes that file to your operating system to launch. This method provides the most flexibility to our clients to use the software they are used to, and also allows Beehive to support specialized file types that are only compatible with software they own. This results in some circumstances of interest:

- A Photoshop user might save a photo, and for another user, it launches in Paint
- One user can open an AutoCAD attachment and another cannot. This is because the first user has a program that can ready AutoCAD files.

1.9.2 Attachment Storage Options

Beehive provides several possible configurations of attachment storage, as described below:

Method 1 - On Premise / Beehive managed

- This is the default method used
- Requires some setup by our client
    - Creation of a shared network location
    - Accessible in a read/write fashion by all Beehive users
- When a user adds an attachment, a typical workflow is:
    - User uses the file dialog to select a file on their computer, network or other device
    - File is copied into the Beehive share, with a Beehive created directory structure and file naming scheme
    - Files are retrieved by Beehive from that share, and NOT from their original location
- Advantages:
    - Provides stable attachment access even if individual users move/delete/rename the original file they attached
    - All attachments of record are stored in once place, allowing IT to protect, backup, and manage the space
    - Performance of file retrieval is consistent, available at LAN speeds, and manageable by IT staff
    - Attachment by one user is always available to other users who visit that Feature/Event
- Disadvantages
    - Requires network
    - Requires sufficient drive space
    - Requires IT involvement

Method 2 - On Premise / Relative reference

- Similar to Method 1, but references the file in its original location
- When a user adds an attachment, a typical workflow is:
    - User uses the file dialog to select a file on their computer, network or other device
    - Record is created in Beehive referencing the exact location selected
    - File is NOT copied anywhere else
    - Files are retrieved by Beehive from that specific location IF POSSIBLE
- Advantages:
    - Allows each user to manage their own files
    - Utilizing consistency and discipline, an IT staff can largely simulate the advantages of Method 1 while not being constrained by Beehive file structures
    - Or allows IT to determine a non-Beehive method of centralized storage
    - Performance of file retrieval is consistent, available at LAN speeds
- Disadvantages
    - Users can attach files from locations that are NOT available to other users
    - Users can delete/rename/move files and confuse themselves or others about why Beehive is not retrieving the data
- Special Case – Wastewater Videos
    - If clients are bringing in PACP packages from their Wastewater inspections that include video, they will often place them in a central location on their network.
    - As these files can be very large, Method 1 can be problematic, in that it will double the amount of space needed when it copies the files from their original location

Method 3 – Cloud only

- All attachments are stored in the cloud
- When a user adds an attachment, a typical workflow is:
    - User uses the file dialog to select a file on their computer, network or other device
    - File is copied into the Beehive cloud based share, with a Beehive created directory structure and file naming scheme
    - Files are retrieved by Beehive from the cloud, and NOT from their original location
- Advantages:
    - Simple. Does not require any on-site setup or storage
    - Provides stable attachment access even if individual users move/delete/rename the original file they attached
    - Attachment by one user is always available to other users who visit that Feature/Event
- Disadvantages
    - Performance of upload/download is dependent on internet speeds
    - Availability is dependent on internet availability
- Special Case – Wastewater Videos

- Beehive (currently) does not charge for cloud storage, so storage of large amounts of file data is not problematic
- However large video files typical for sewer inspections will not display until they have been completely downloaded from the cloud. If a user frequently access these videos, this can be a frustrating experience
- We have often seen video of this type ranging from 100 meg to 2 gig

Beehive Documents can also be directly integrated with document management systems such as OnBase or Laserfiche. In this case, the document appears to be within and available from Beehive, but is actually launched from OnBase.

1.10 WORK

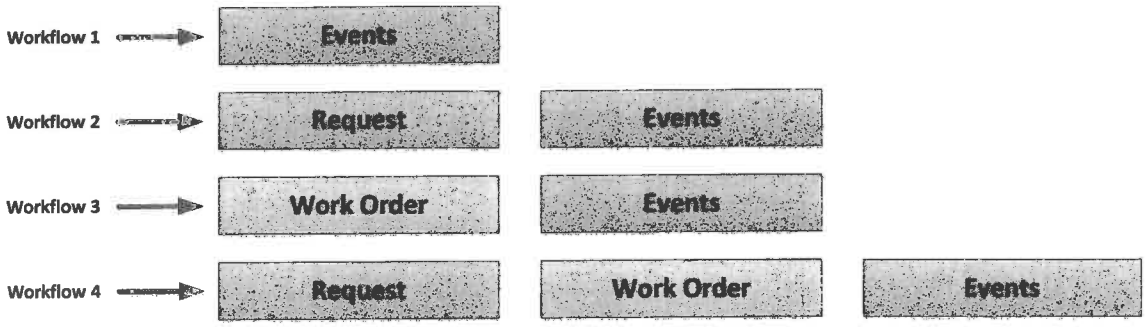
Beehive has several ways to look at workforce management. As we work with multiple cities, we find that the term "work order" means something different in each, sometimes even among departments. This section explains some workforce concepts in Beehive.

1.10.1 Request

A Request is a communication indicating a problem within the city. It can be represented spatially if desired. The workflow takes advantage of the power of Events to contain all elements of work efforts, enhancing the effectiveness of a Work Order.

At the Beehive technical architecture level, there is no difference between an Asset, Work Order, or a Request. So each can take advantage of Event driven management, custom property fields, comments, attachments, and relationships. In addition, they are each available in the Query Grid and Query Map.

The net result is that there are four possible workflows for these elements:



1.10.2 EVENTS ONLY

This method can be used where there is no requirement to group tasks under larger headings. The User navigates to an Asset, and adds both past and future Events. This is the easiest method to implement, and is the easiest to understand for all Users. Since most Task data is derived from Events, this method provides very granular access to effort and planning data.

The down side is that it requires that the Events be tied to specific Assets, which is sometimes problematic early in problem resolution. This is often used in circumstance where you are normally recording activities after the fact.

1.10.3 REQUEST > EVENTS

In this method, a Request comes in and is recorded in Beehive, usually at a specific spatial location. It follows the simple premise that someone wants something done, and the tasks performed to resolve it are recorded as Events. It is possible to enter Future Events to plan the response for a Request.

Requests also store information such as Source (where did this come from? Public, Mayor, Staff, etc) as well as contact information for the Requestor.

1.10.4 WORK ORDER > EVENTS

This works much the same way as Request > Events, with different vocabulary.

1.10.5 REQUEST > WORK ORDER > EVENTS

This is just an extension of the previous models. It can be considered where the original Requests often do not result in action or resolution. This places a decision point (the Work Order) after the Request.

1.10.6 SPATIAL WORK ORDER

The nature of Work Orders in Beehive is nearly identical to Requests described above. The following outlines a typical workflow for either one.

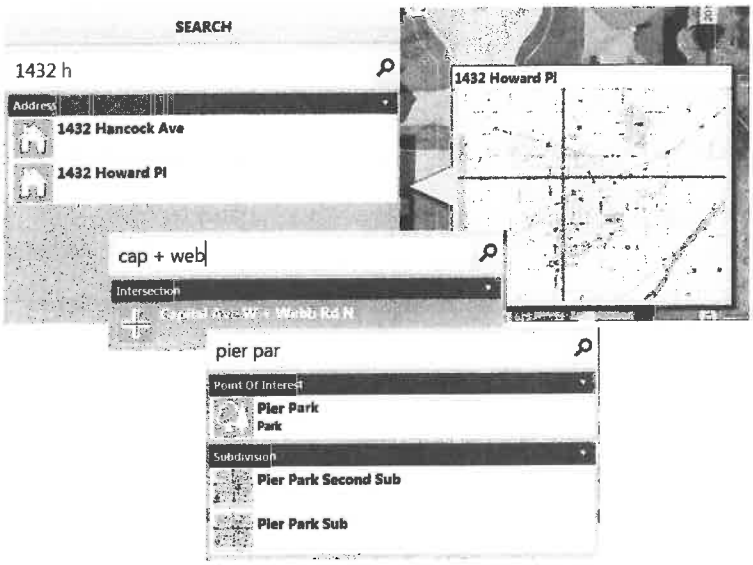
Spatial Work Orders - Beehive provides a quick, simple process for the creation of spatial work orders.

Trouble happens and in the Beehive Framework, we handle them from end to end and beyond. We tend to think of solutions in 5 parts.

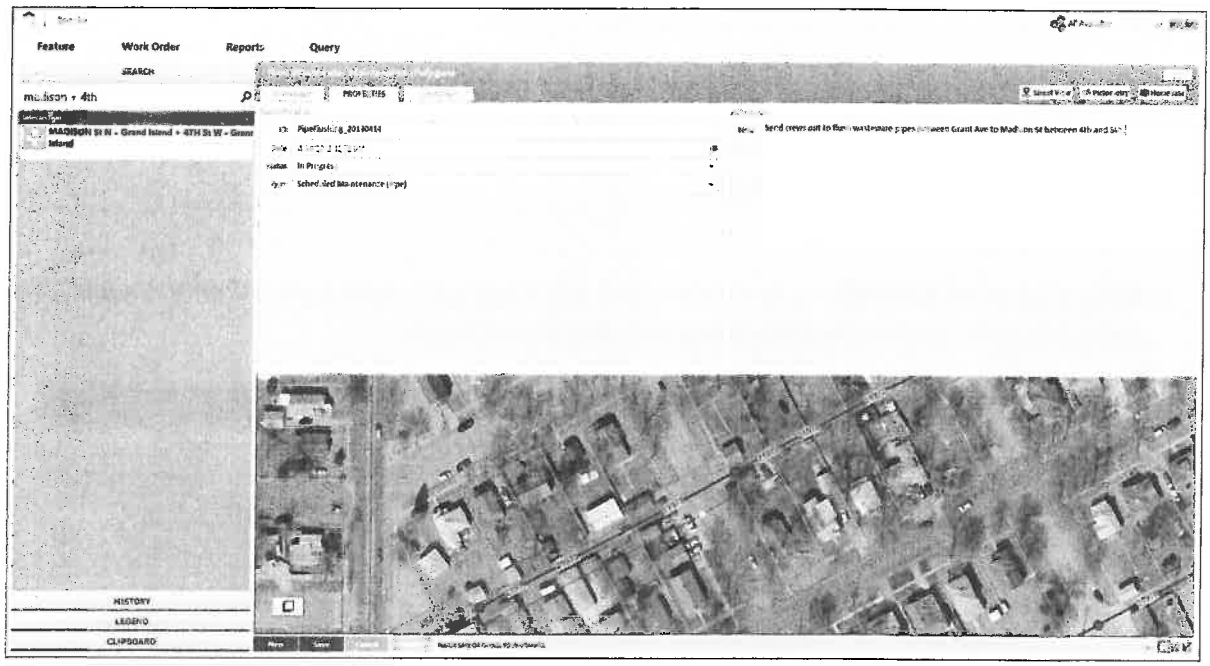
- What is it?
- Where is it?
- What are we doing about it?
- How are we doing?
- How do we do better?

The last two are a longer story, but this is an overview of the first three.

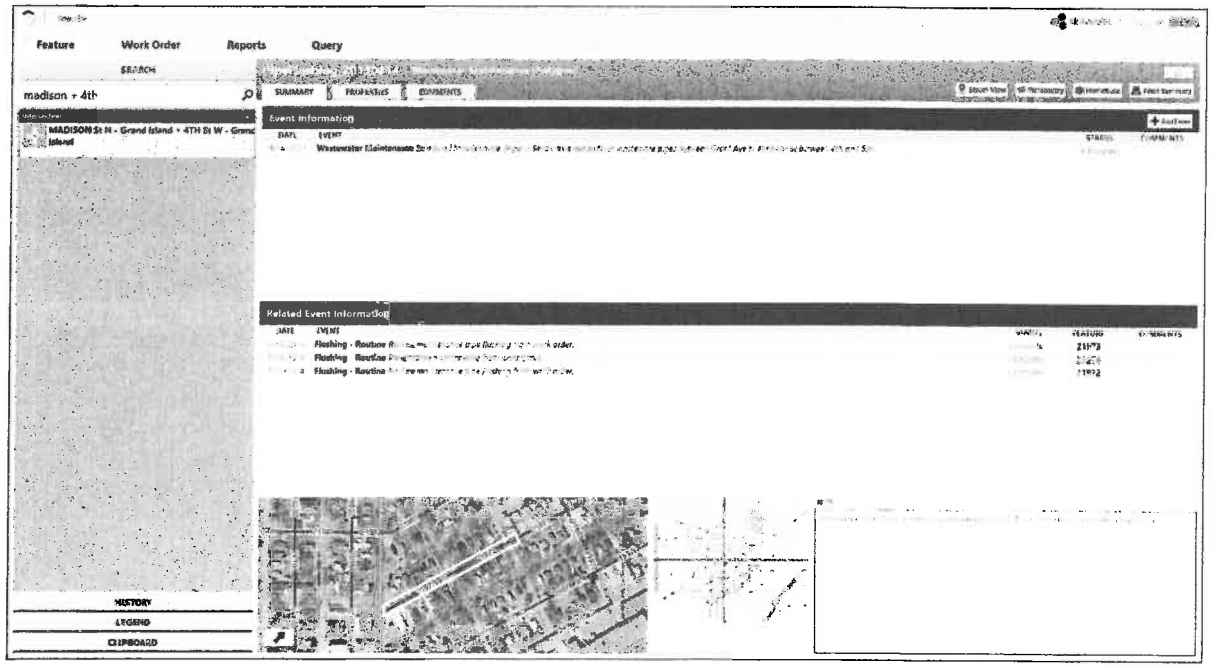
Where is it? - This is a map centric search, which allows searching for a location based on a variety of features including addresses, owners, intersections, feature ID, and points of interest such as schools, parks, businesses, and commonly referenced buildings. Legal descriptions, parcels, and utility grids can also be used. All this in a single, simple entry field.



Once the user gets to the scene of the issue, they can represent the Work Order by a point, line, or polygon.



Summary Information – Once the Work Order is created, now the administrative staff can look back at the Work Order at any time to see the collection of individual work events that have been generated because of that specific Work Order. At this point, the user can also determine a total cost of the work associated with that particular Work Order based on time tracking and any material consumption.



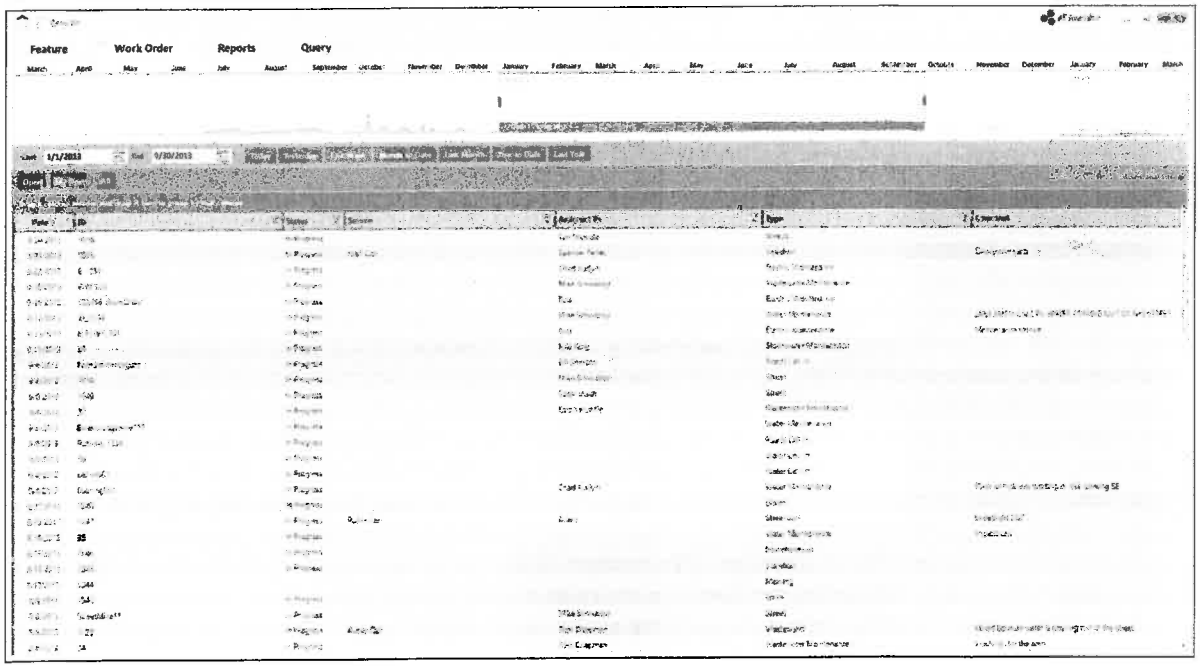
Additional data is up to the user, but can include:

- Subtype – additional category of Work Order type
- Source – Where did the request come from
- Date / Time of the issue
- Contact information about complainant (if any)
- Additional notes about the issue
- Assignment

What are we doing about it? - As a Work Order is managed, each task is represented as a Beehive Event, which tracks the details of the effort that goes into the work order.

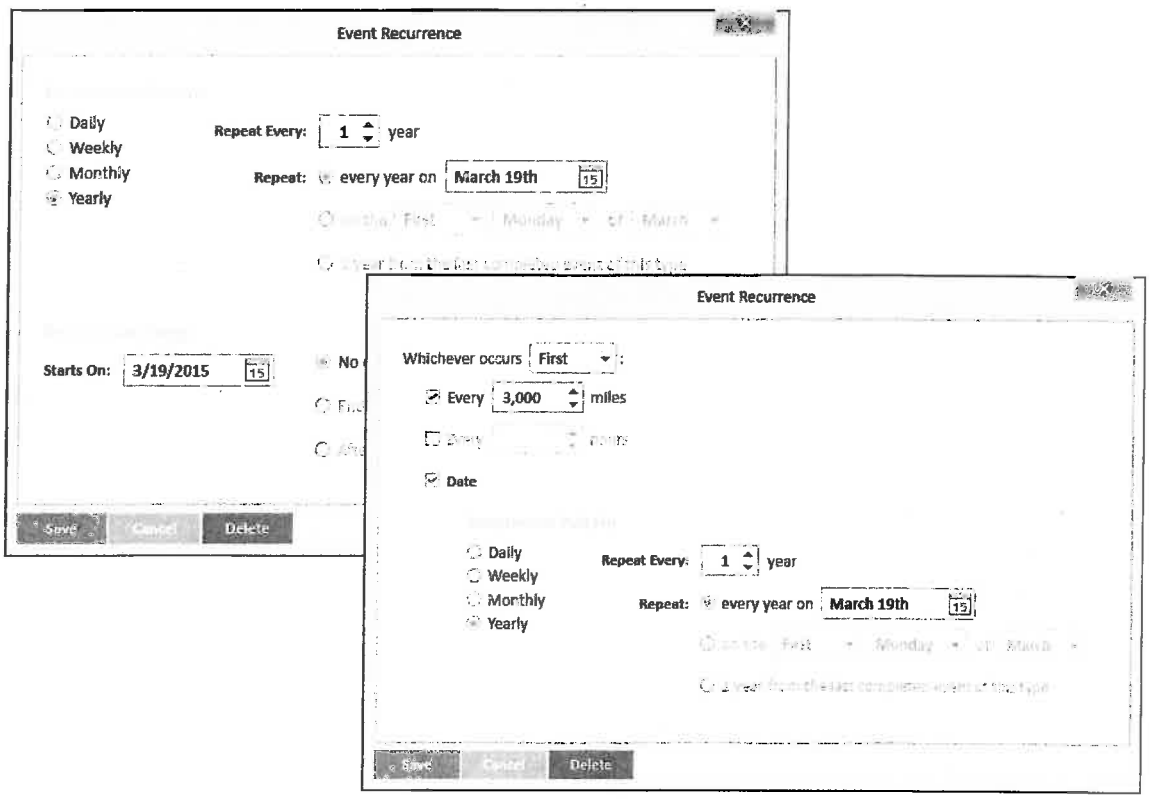
Date	Status	Status	Assigned to
7/17/2012	**Other** / *Return damaged cover to foundry*		JimR
7/13/2012	**Install** / *New cover installed*		AndrewZ
6/25/2012	**Maintenance** / *Ordered new D2052 cover*	**In Progress**	AndrewZ
6/24/2012	**Maintenance** / *none in inventory of this size. Te..*	**Complete**	AndrewZ
6/24/2012	**Inspection** / *found in ditch but damage along ...*	**Complete**	JimR
6/24/2012	**Street** / *Manhole cover reported missing*	- - -	Public Report

Work Order Summary – The Work Order Summary page allows users to look up Work Orders based on a multiple of criteria. These can range anywhere from dates, to Work Orders status and what is assigned to individual staff members or a team.



1.10.7 REOCCURRING PREVENTATIVE MAINTENANCE

Users can project Work Orders and Events forward utilizing a variety of methods. These schedules can be built out inside of the Beehive framework by leveraging the scheduling engine. Schedules can be set on a variety of methods. These methods can include very specific patterns, daily, monthly, annually, or can built upon asset driven schedules, miles, hours, etc.



The scheduling engine can also be set up to accommodate event-based schedules. For example, a filter in the HVAC unit at the Wastewater Treatment plant needs to be changed every six months. For whatever reason, the filter didn't get changed until seven months from the previous event. The next event can be automatically created for six months from the data of completion. The user has the ability to determine whether or not to override the existing six month schedule.

1.11 EVENT TYPES

Events are where all the action happens in Beehive. Any activity related to an Asset, Work Order, or Request is detailed in an Event.

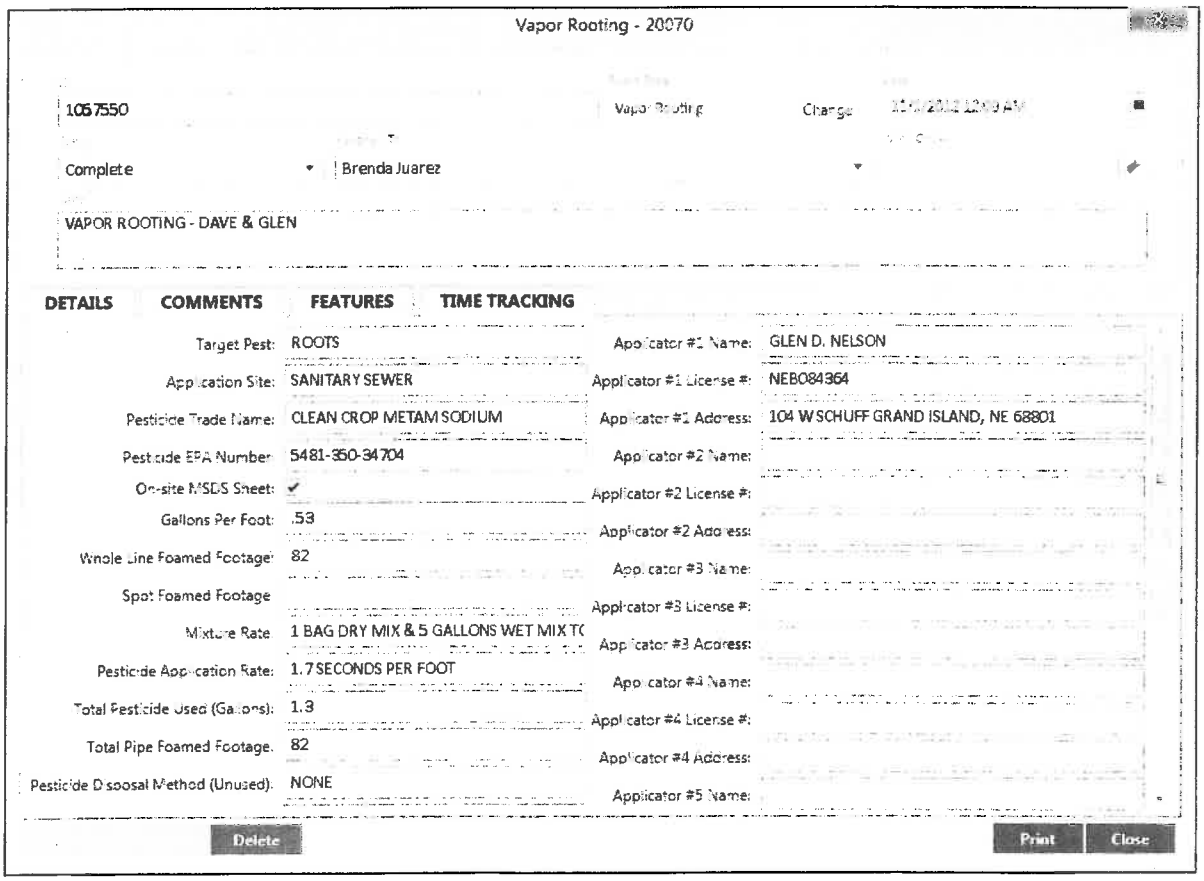
Each Event has an Event Type, which defines its name, its function, and its behavior. Several elements of an Event Type can be configured.

1.11.1 Event Model

Event Types use a specific Event Model, which can define specialized form and behavior. Current Event Models include:

1.11.2 General Event Model

This Event Model allows the configuration of custom fields in much the same manner as Feature properties described above. This model works well for Events that need to gather individual data elements. It allows for the same control types that Feature properties allows. Most Event Types will use this model.

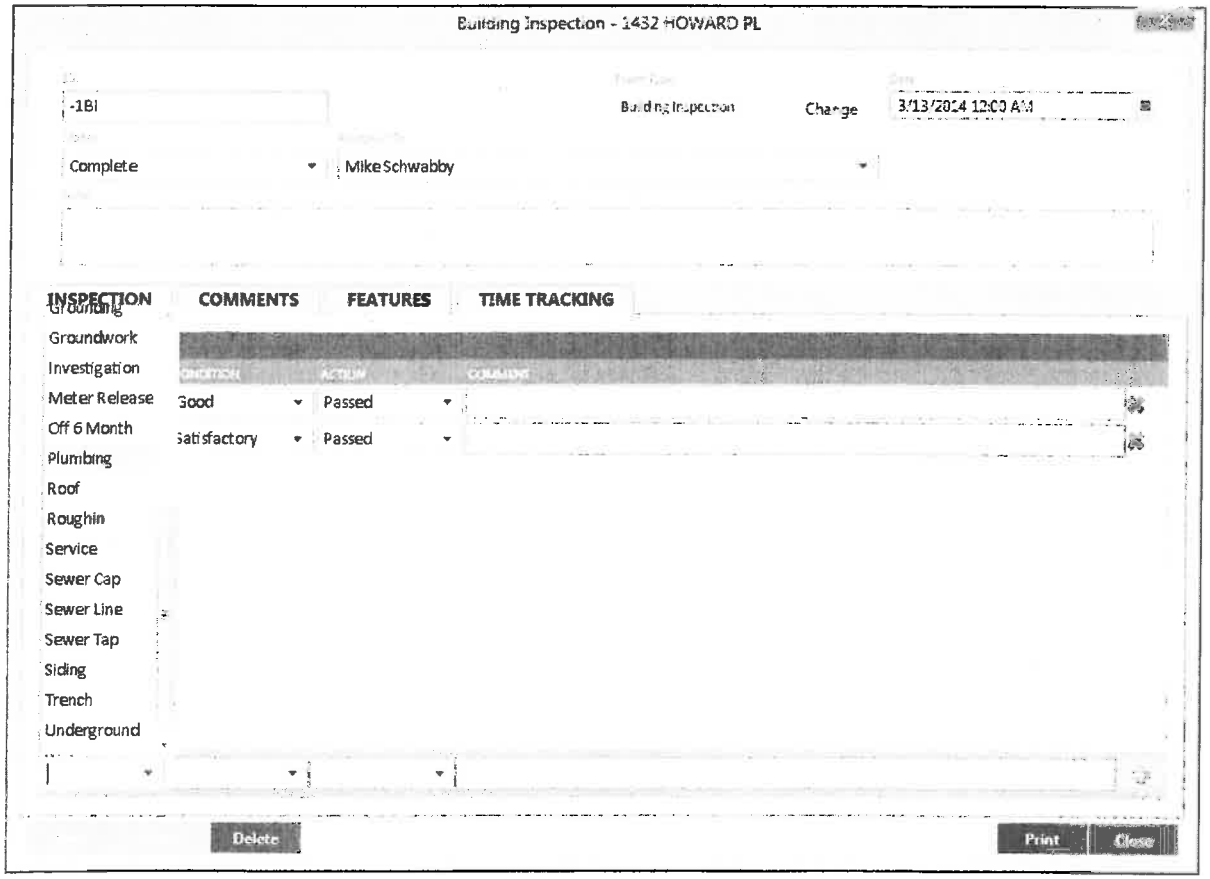


1.11.3 Inspection Event Model

The Inspection model is used to construct Events intended for inspection of many different features. It allows the user to select a component to inspect, enter a condition found upon inspection, select a possible action, and enter a comment to further clarify the inspection. This model can be configured to allow any number of "component" inspections on a single Event. Behind the scenes each Condition can be associated with an impact on the underlying Features condition index.

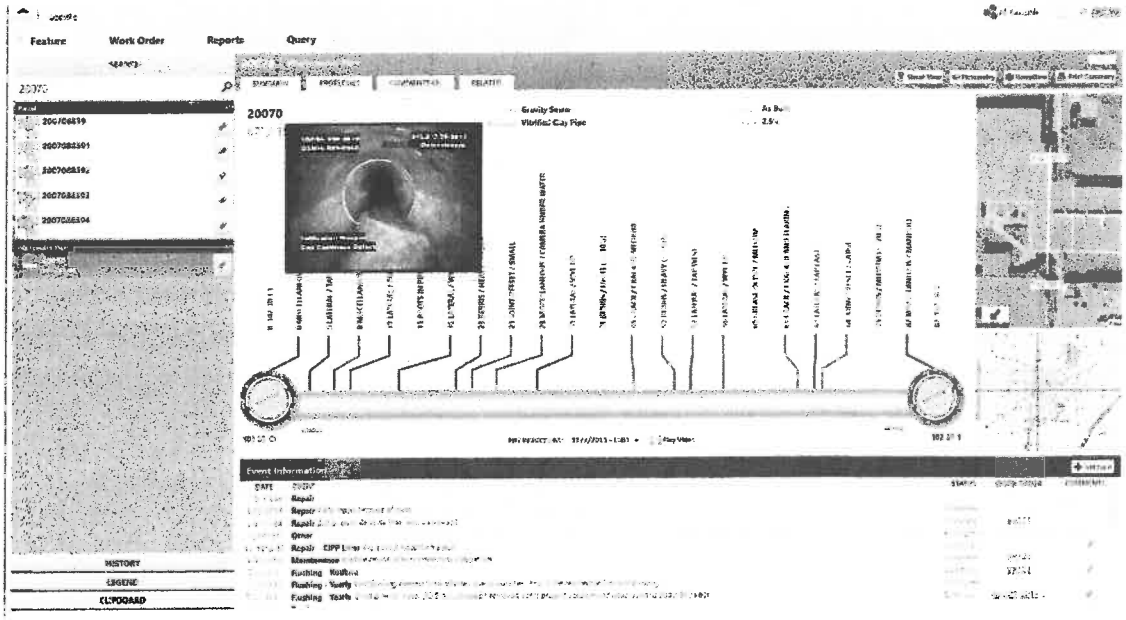
For each Event Type that uses this Inspection model, the following can be configured:

- A list of "Components" that might be inspected
- A list of "Conditions" that might relate to an Event Type
- A list of "Actions" that might be applied to satisfy any defect found in the inspection
- An "impact" that each component/condition combination will have on the Feature condition



1.11.4 PACP Inspection Event Model

Beehive provides a specific Event type that provides documentation and visualization of pipe inspections performed with CCTV equipment.



Features include:

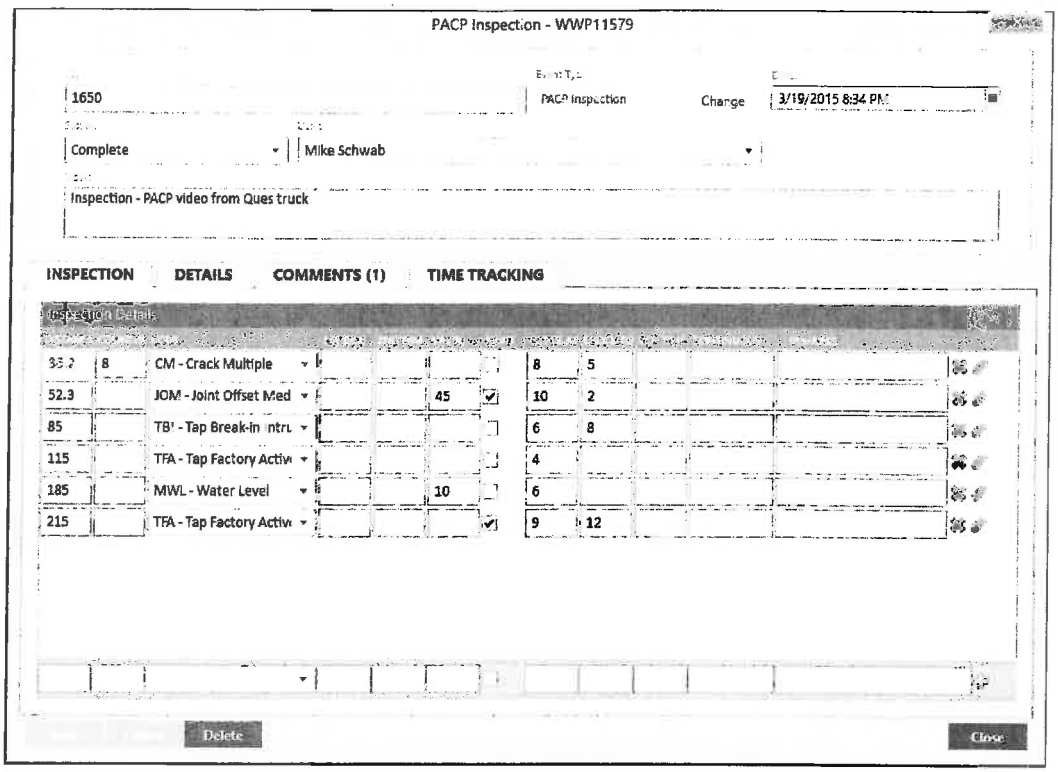
- Display of all defects and intrusions
- On hover display of defect photos
- On-click display of latest inspection video
- Quick access to previous inspections

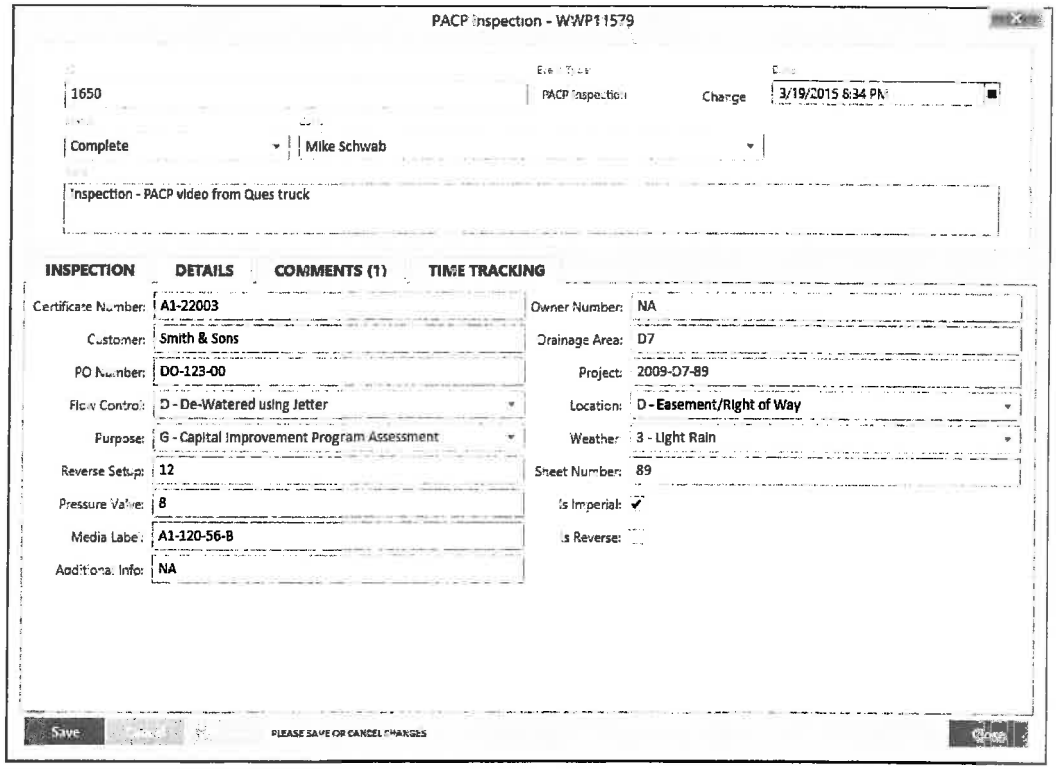
Along with the display of the PACP CCTV information, Beehive also provides an import function that allows users to directly import the PACP database via a one-button import process. This import will import defect data directly onto the associated Beehive event, and create direct links to the associated videos and photos.

This import function requires that the PACP data format be utilized. It does NOT require that the associated data or your use be PACP compliant.

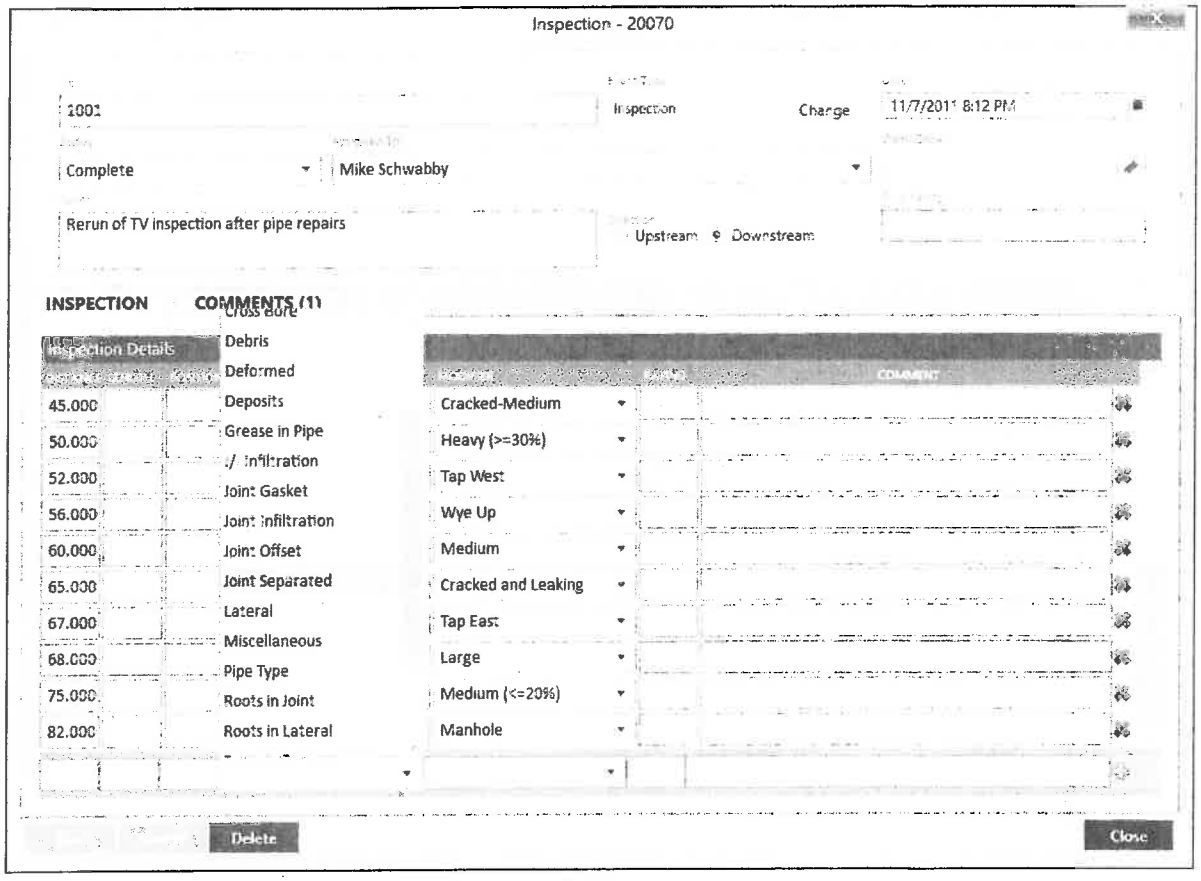
The Beehive import process supports industry standard pipeline evaluation applications, such as:

- Granite XP
- WinCan
- IT Pipes
- PipeLogix
- Etc

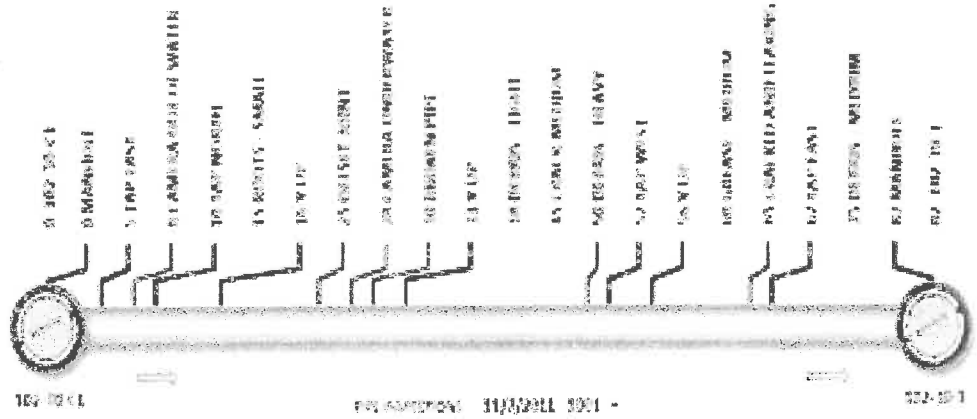

PACP Inspection - WWP11579
1650
PACP Inspection
Change
3/19/2015 8:34 PM
Complete
Mike Schwab
Inspection - PACP video from Ques truck
INSPECTION
DETAILS
COMMENTS (1)
TIME TRACKING
Inspection Details
8
CM - Crack Multiple
8
5
52.3
JOM - Joint Offset Med
45
10
2
85
TBI - Tap Break-in Intru
6
8
115
TFA - Tap Factory Activ
4
185
MWL - Water Level
10
6
215
TFA - Tap Factory Activ
9
12
Delete
Close


PACP Inspection - WWP11579
1650
PACP Inspection
Change
3/19/2015 8:34 PM
Complete
Mike Schwab
Inspection - PACP video from Ques truck
INSPECTION
DETAILS
COMMENTS (1)
TIME TRACKING
Certificate Number: A1-22003
Customer: Smith & Sons
PO Number: DO-123-00
Flow Control: D - De-Watered using Jetter
Purpose: G - Capital Improvement Program Assessment
Reverse Setup: 12
Pressure Valve: 8
Media Label: A1-120-56-B
Additional Info: NA
Owner Number: NA
Drainage Area: D7
Project: 2009-D7-89
Location: D - Easement/Right of Way
Weather: 3 - Light Rain
Sheet Number: 89
Is Imperial:
Is Reverse:
Save
PLEASE SAVE OR CANCEL CHANGES
Close

The Beehive framework also provides a simplified linear inspection type for areas where PACP inspections are not necessarily needed, for example, Stormwater pipes. It allows the documentation of issues by the entry of a distance along the Feature, along with a Detail Type, which requires the selection of a specific type. The User can also enter in a comment for each item to clarify the issue.

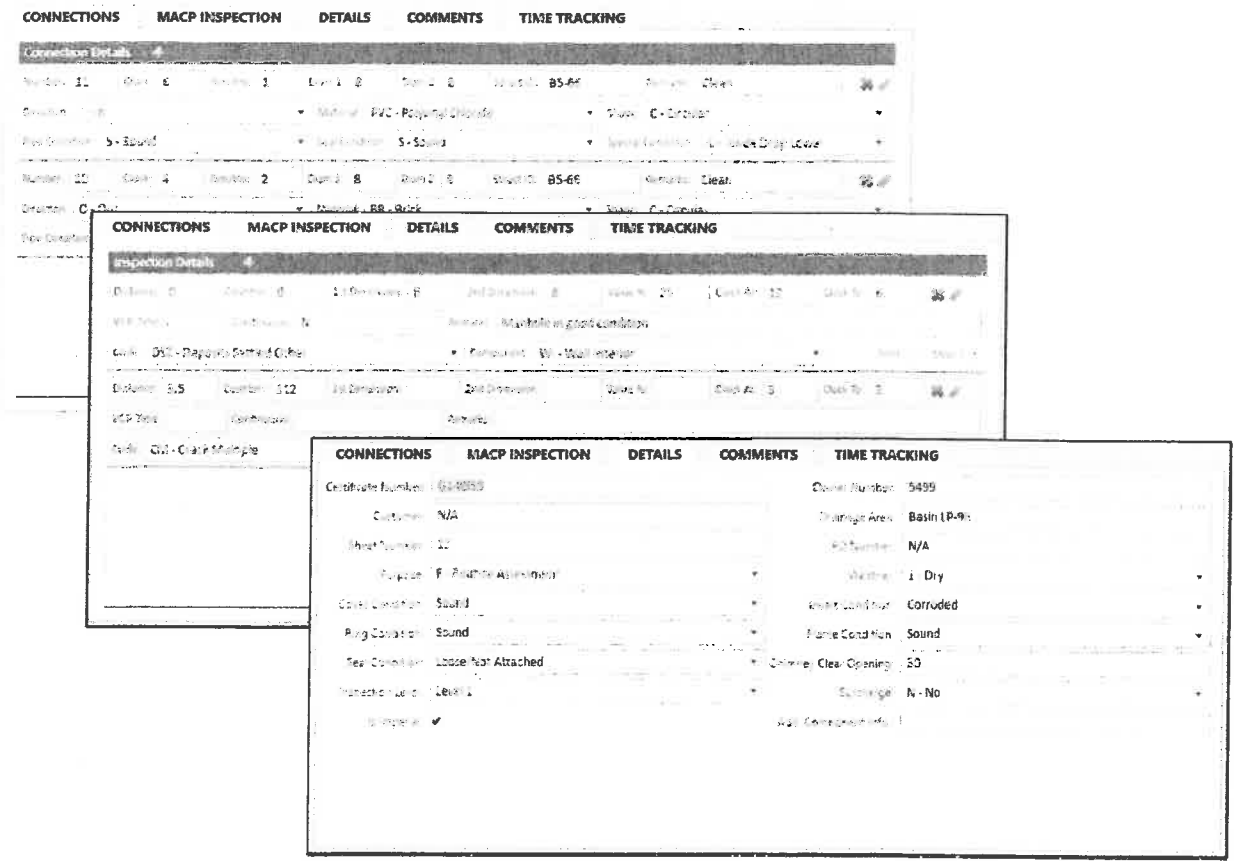


This data can also feed a specific type of Feature Summary as shown below.



1.11.5 MACP Inspection Event Model

As a counterpart to the PACP inspection model, the Beehive platform also provides a direct NASSCO/MACP compliant manhole inspection event.

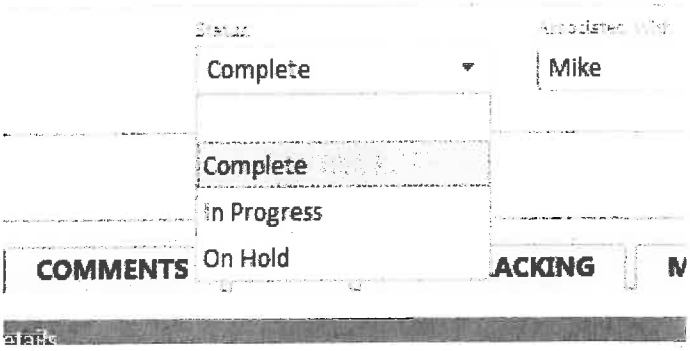


The MACP inspection model is very detailed and can generally be seen as a bit overwhelming and will take a highly focused effort from inspection staff to comply with the MACP model. It is important that you consider the effort versus the value you would receive. In general, using the standard Beehive Inspection Event model as described above will provide the same type of conditional assessment and recording of data, however will require much less effort to implement and manage.

Because of the power and flexibility of the Beehive platform, both the MACP and standard Inspection Event can be implemented simultaneously and leveraged as needed. By using the Beehive Conditional Assessment tools, both event types can be configured to impact the condition of the manholes.

1.11.6 Event Status

Each Event has an associated Status, which can be set by the User. The concept of Status drives a variety of reporting, querying, and analytics.



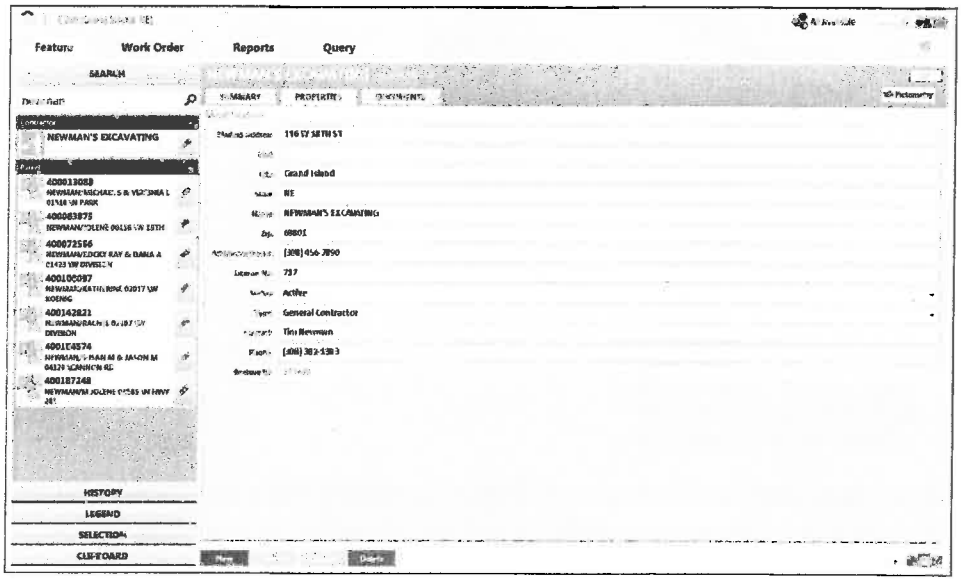
The list of Status can be configured for each Feature Class. Behind the scenes these are a little more than a simple list. Each Status you configure is then associated with one of four "behind the scenes" super-status:

- ✓ Neutral – This is the default "super-status" and does not place any special value on the underlying Status.
- ✓ Complete – Whether the actual status is labeled "Done", "Complete", or "Finished", this setting tells the rest of the Framework that this Event is Complete.
- ✓ Fail – Whether the actual status is labeled "Bad news", "Failed", or "Yucky", this setting tells the rest of the Framework that this Event has Failed.

Clear – This super-status, which can be labeled in any way, tells the Framework that not only is this Event Complete, but all Events associated with the accompanying Request or Work Order are also complete. This is a quick way to allow the user to change the Status of a single Event and close the parent issue without visiting each Event associated with it. Note that some current Beehive users in Lincoln refer to this as "Super-Complete".

1.12 CONTRACTOR MANAGEMENT

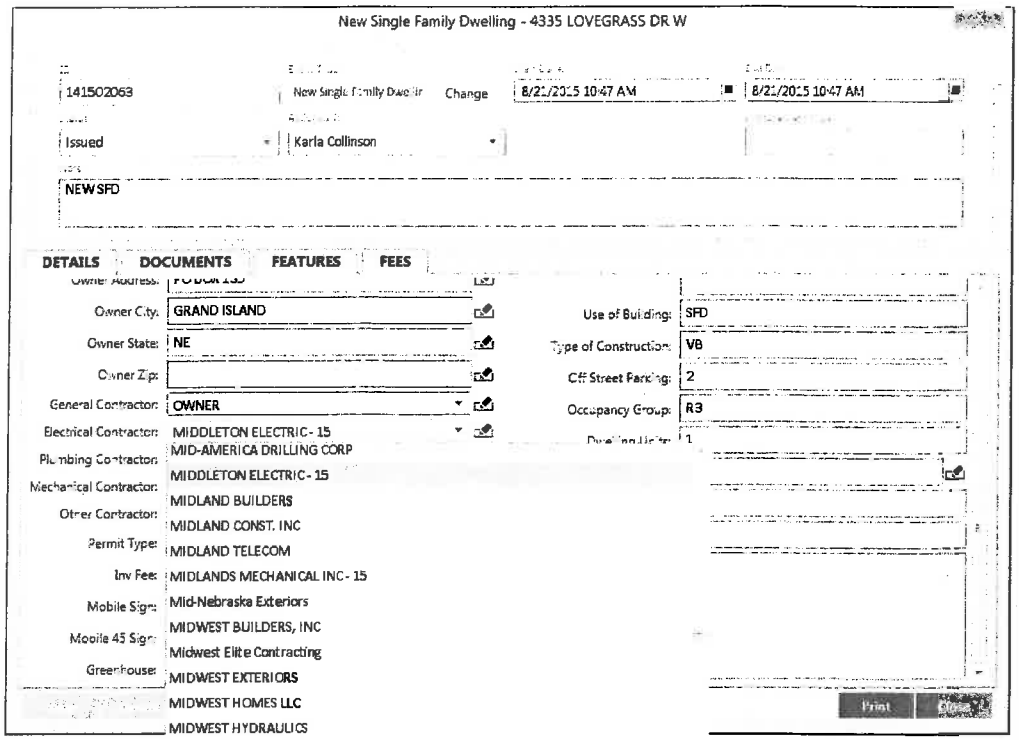
Inside of the Beehive framework, we have the ability to manage all functions required for a robust contractor management application. This is part of the core functionality of the Beehive framework, meaning that it is not department or functional group dependent. This functionality is available for both the PWU and PRD.



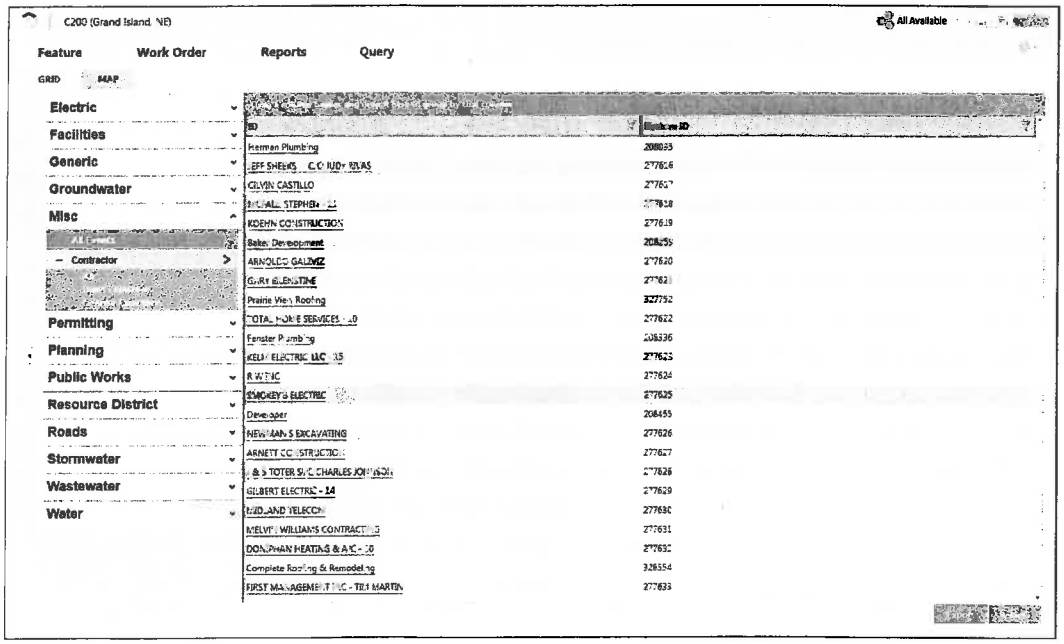
Main contractor management functions within Beehive:

- Tracking of all contractor contact information
- Contractor capabilities
- Contractor employees and contacts
- Assignment of tasks to contractors
- Reporting on all contractor data

Any task that is generated inside of the Beehive framework, regardless of the functional group, can be assigned to any contractor or contractor employee. At this point, time can be tracked to each of these task codes which can be leveraged at the completion of a project for total contractor cost, etc.

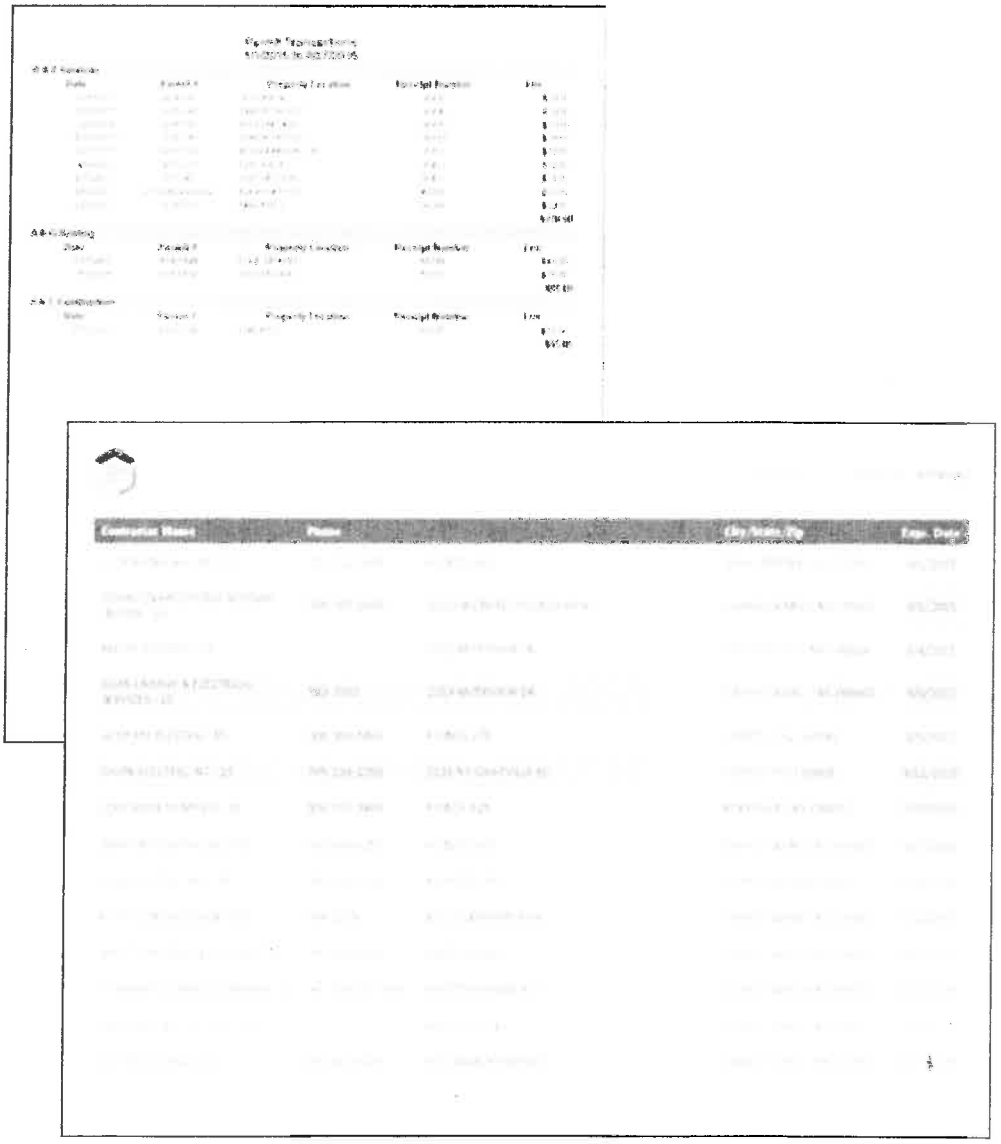


As with other core functions of Beehive, the master contractor list is also available through the Beehive query grid. In this grid, the user has the ability to look up contractor by any of their physical properties, such as Contact, City, State, Zip, Capabilities, etc. Along with the look up of physical properties, the user can also query by specific date ranges, such as expiring insurance, license date, etc.



A full list of out of the box reports are also provided as part of the contractor management inside of the Beehive framework. The following is a sample of reports that are currently available for the Contractor Management inside of the Beehive framework:

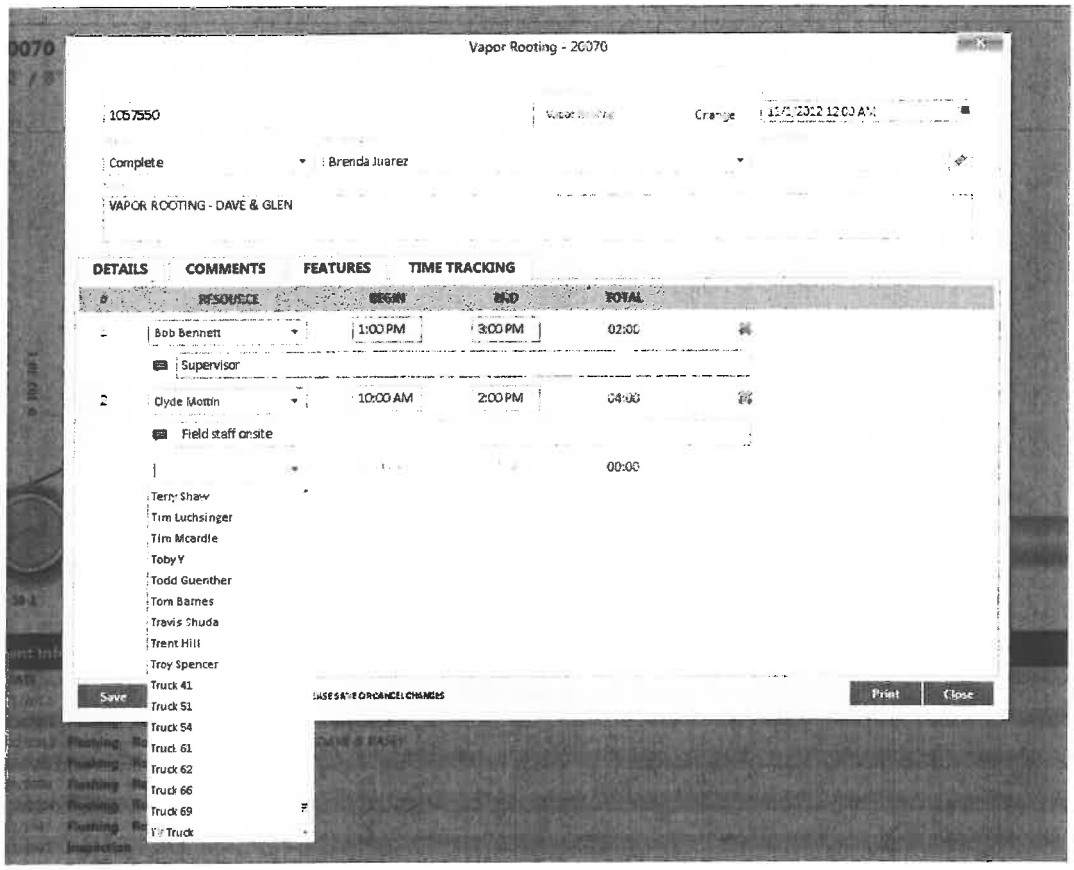
- Expiring insurance by date range
- Total Fees collected by contractor
- Currently open projects by contractor
- Total tasks by contractor
- Etc



1.13 COST MANAGEMENT

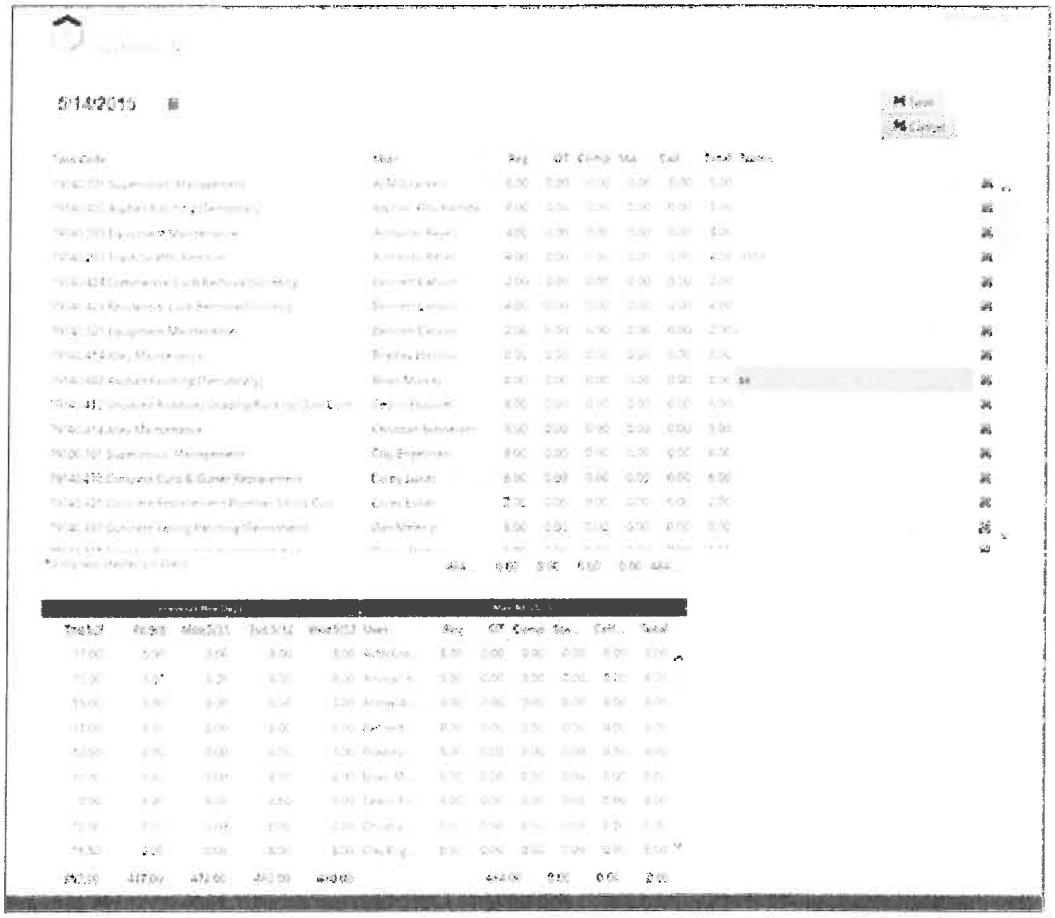
1.13.1 ASSET/ACTIVITY TIME TRACKING

Any Event Type can be configured to allow the tracking of Time spent on that Event. The Resource drop-down can be configured to show staff member, crews, and equipment. The User can enter as many lines as necessary to document the time spent. Behind the scenes, each person, crew, and equipment can be associated with hourly costs and "fund source" (general ledger account number), which are then reportable and query-able.



1.13.2 NON-ASSET TIME TRACKING

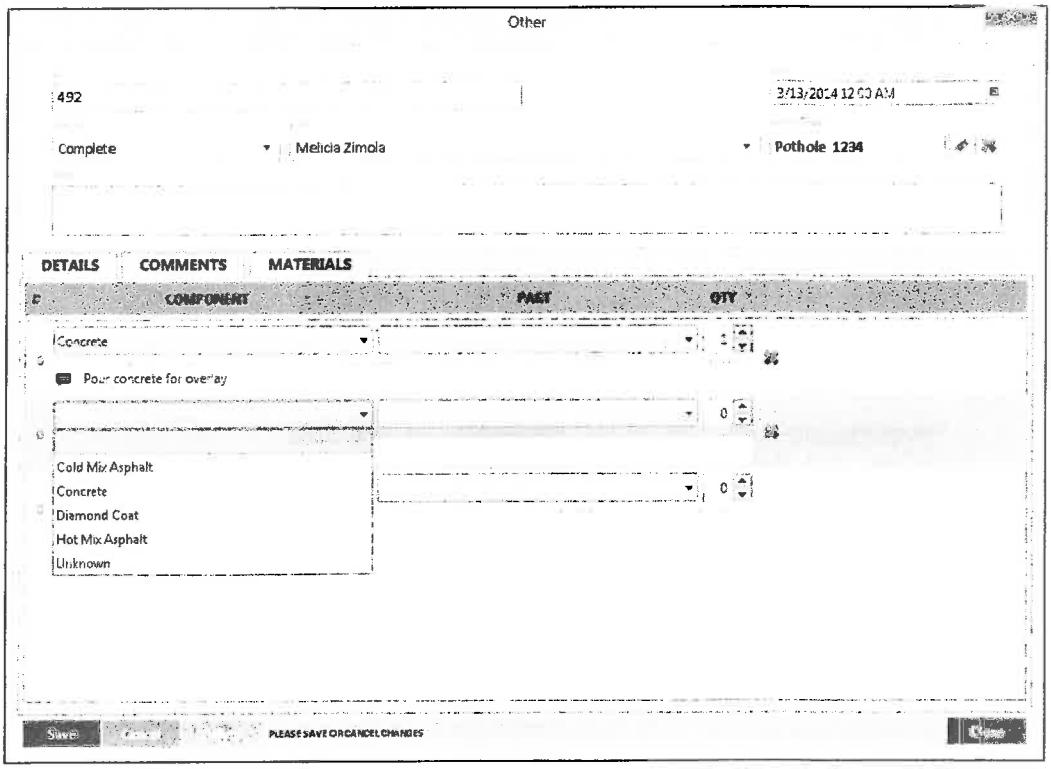
Beehive also provides tracking of time related to items like vacation, overtime, comp time, etc. This ties directly to current Lincoln methods for task codes and payroll requirements.



1.13.3 Material & Part use

Any Event Type can be configured to track the consumption of parts or materials. Each consumable is configured in several parts:

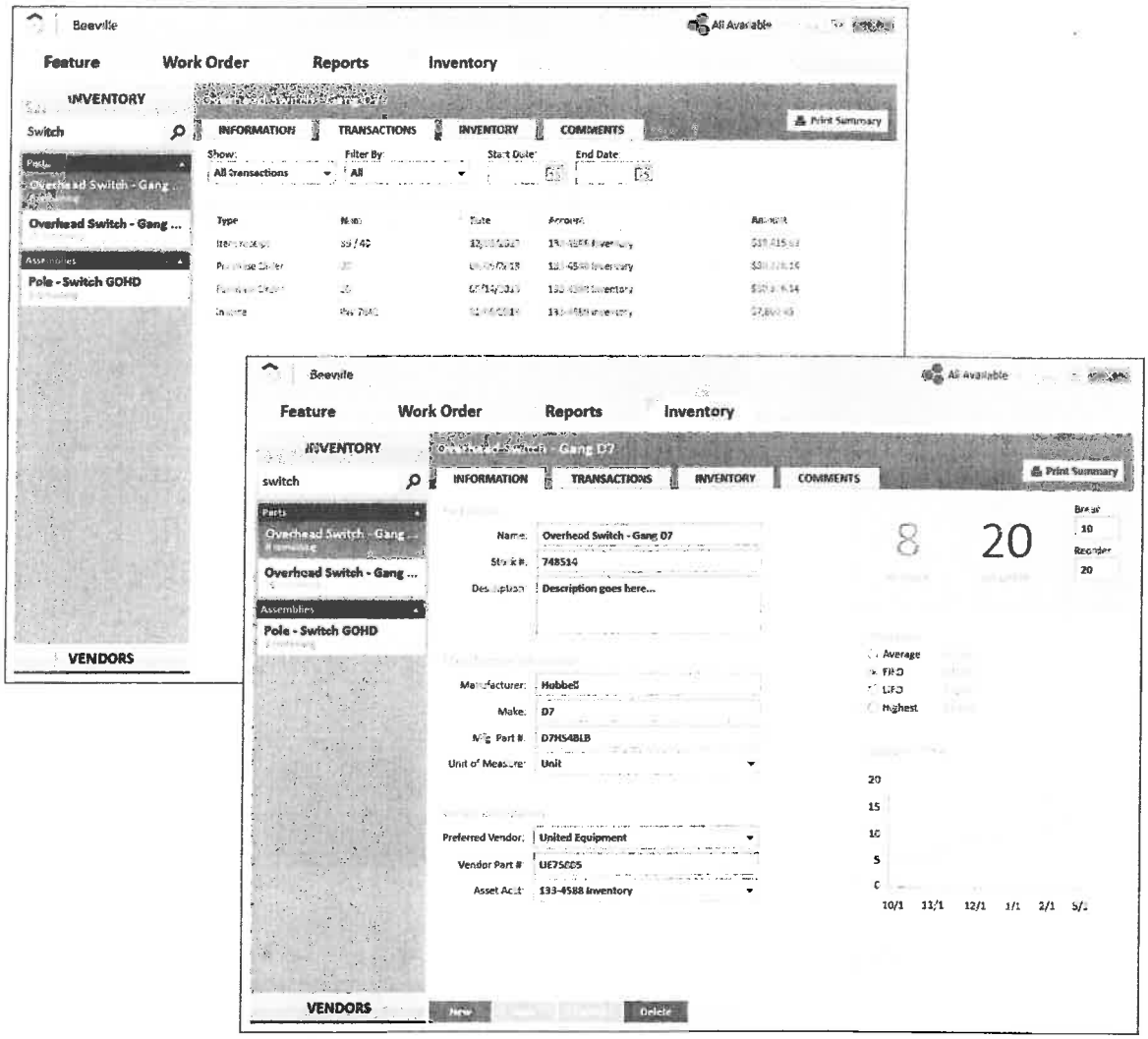
- ✓ Component – General term describing the generic name of the part
- ✓ Part – Specific instances of the component. This represents the actual inventory part
- ✓ Cost – The acquisition cost for this part
- ✓ Fund Source (general ledger account from finance software)



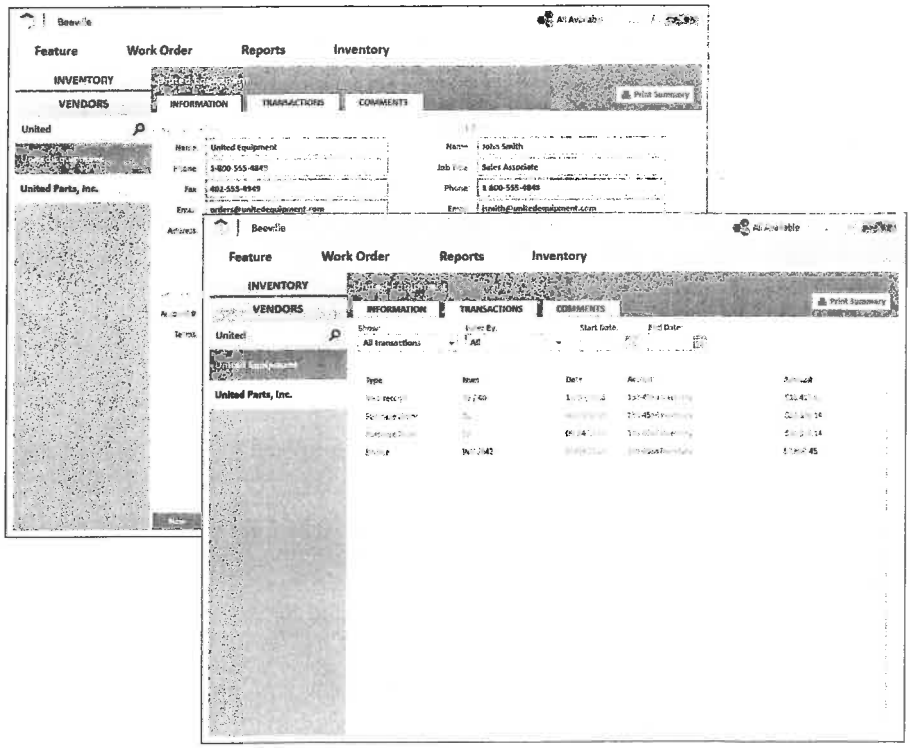
1.13.4 Stock Management

The Beehive Stock Management toolset allows you to track inventory, vendors, purchases, inventory warehouses, and assemblies. Stock Management integrates seamlessly with the Beehive event engine so that your materials are always up to date.

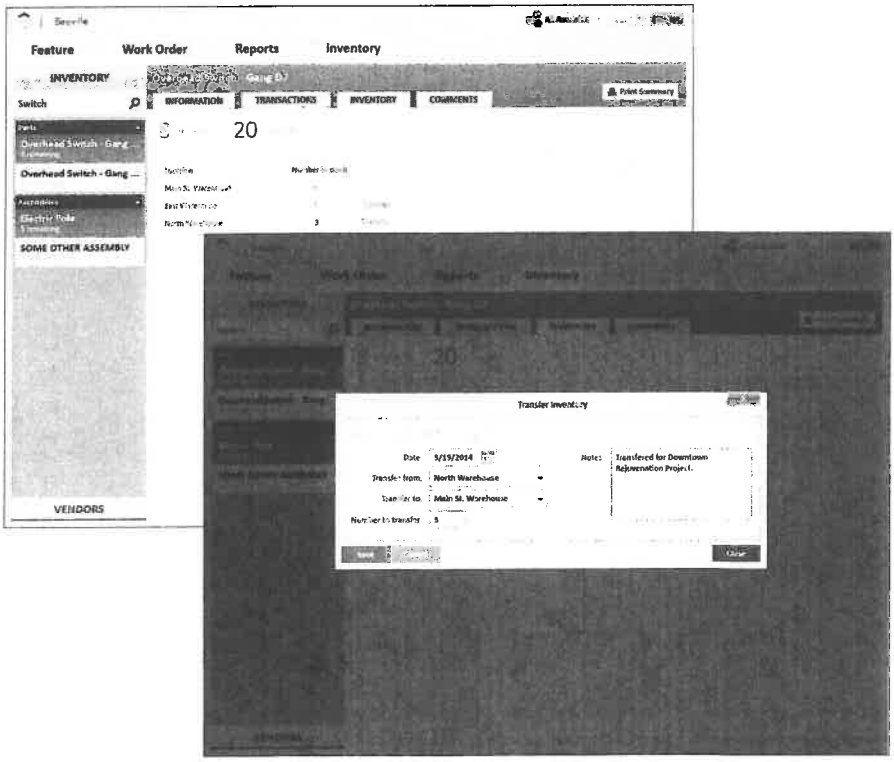
1.13.5 Stock Management: Items in Inventory



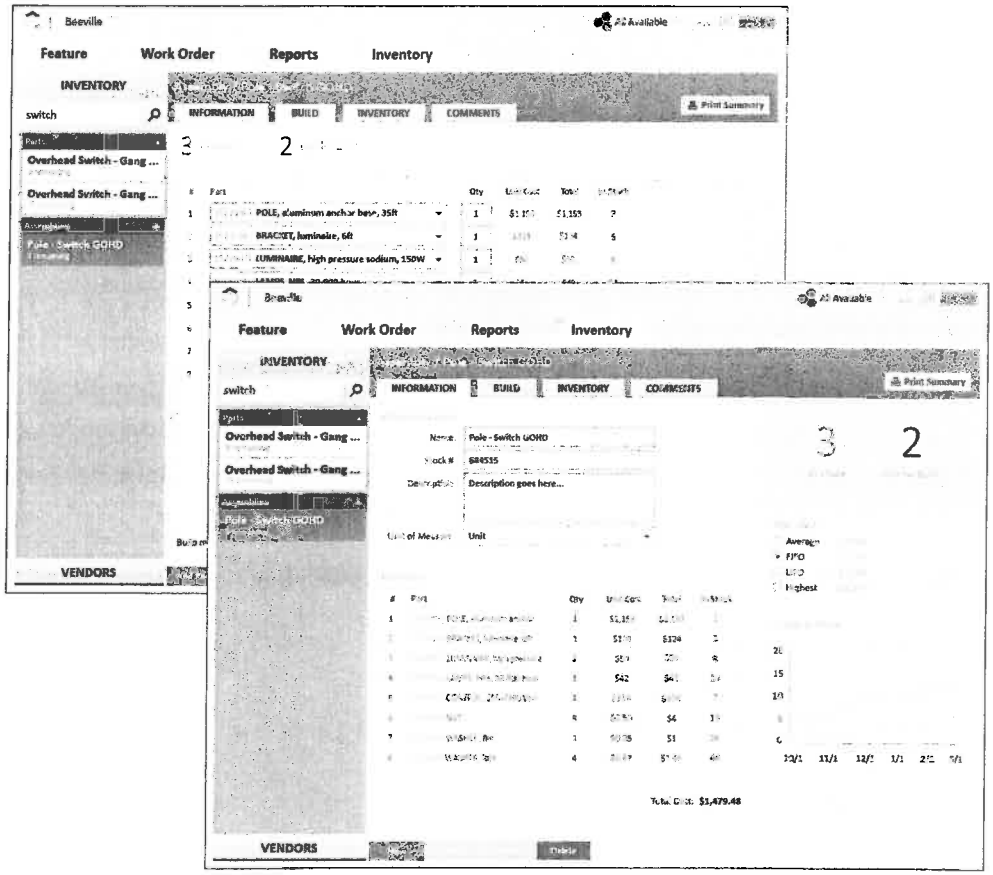
1.13.6 Stock Management: Vendors



1.13.7 Stock Management: Warehouse



1.13.8 Stock Management: Assemblies



1.14 FIELD USE

Beehive provides several methods of field use

1.14.1 Disconnected Mode

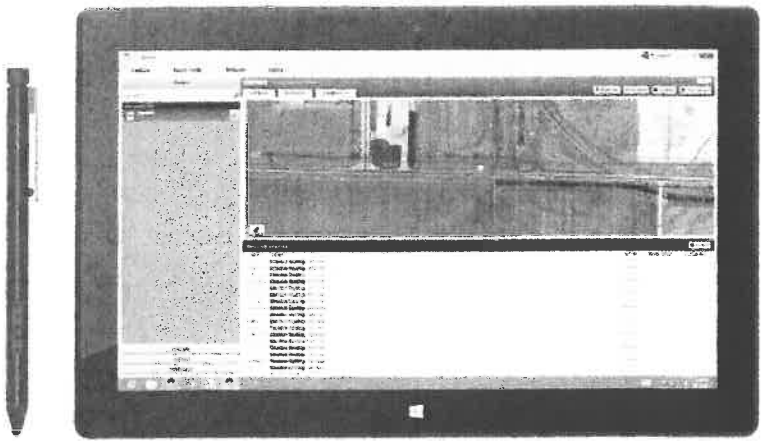
As a side effect of the architecture and development of the Beehive platform, the Beehive applications are able to be leveraged in a completely disconnected environment. This functionality allows users of the Beehive platform to take any of the applications out into the field on their device without the need for an internet connection. This is extremely powerful for communities who may not either have a city-wide wireless network or cellular internet coverage throughout their community.

In disconnected mode, Beehive functions as if the user were still connected to the network. The Beehive service is constantly running in the background and will start an aggressive sync protocol whenever an internet connection is detected. This process requires no input from the user, there is no check-out/check-in process to manage, and it operates completely seamlessly.

Within disconnected mode, users still have access to the following functions of the Beehive framework:

- ✓ Create/Manage event information
- ✓ Create/Manage work orders
- ✓ Update or modify feature properties
- ✓ Create new features
- ✓ Add photos/comments

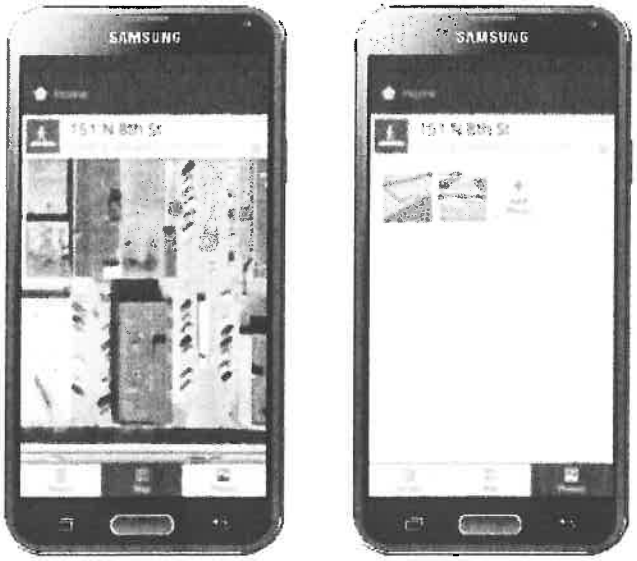
As with all Beehive functions, these are also dependent on the users permission levels as managed by the system administrator



1.14.2 Mobile Device Access

Beehive can be utilized on mobile devices such as iPads, iPhones, and Android devices. This method is geared towards specific use-case requirements, and requires some level of connectivity at all times. This application is deployed as a native application on both Android and iOS devices. Each user is authenticated against the Beehive database of users when accessing the application. Because of that, only the tasks/items that user has permission to see are available.

Tasks can be configured to take advantage of the GPS device located inside of the specific device. This can assist with map navigation inside of the application as well as being able to place new events based on the devices location. Along with map navigation and interaction, photos can be directly uploaded into application. As with all Beehive photos/attachments, as soon as they are added into the system, they become available for any other users who have permission to access the data.

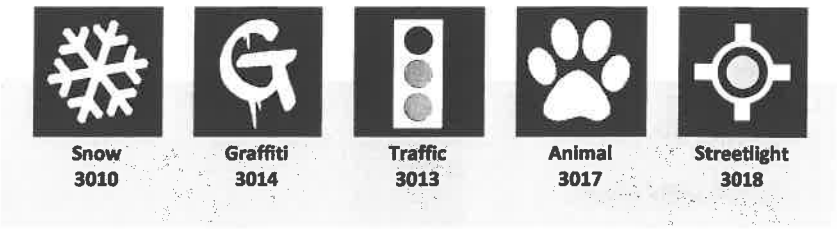


The Beehive mobile application can also consume and distribute push notifications from the master application. These can be configured for such things as high-priority work orders or severe weather information statements.

The application is designed to optimize based on the device and format. For example, the application behaves differently when installed on an iPad compared to the installation on an iPhone. Instead of just scaling up the application, the Beehive apps actually re-orient themselves to take full advantage of the increased screen real estate.

1.15 E311 / PUBLIC REPORTING

The City of Lincoln Street Operations division is currently using the Beehive Work Engine module to manage reported issues related to potholes, snow problems, and many other issues that may come in via phone or other means. Across all Work Engine clients, we currently have 32 different major categories and countless sub-categories of issues being tracked and others can be added as needed.



The Beehive E311 module takes the power of Work Engine and puts in in the hands of the citizens of Lincoln.

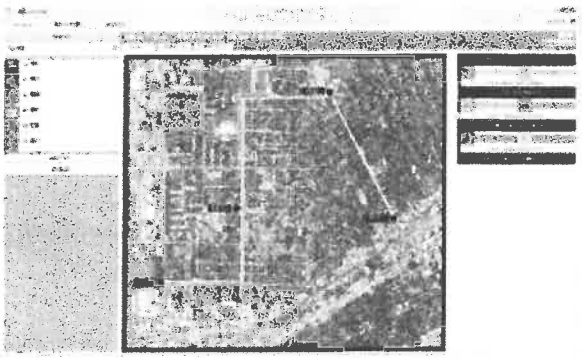
- Using native mobile applications for iOS (Apple) and Android, members of the public can report issues, note issue locations on a map, and submit photos. Citizens can also input issues via their web browser.
- Administrative tools allow you to choose what times of issues you want reported. Security can follow one of three models, ranging from fully autonomous to mandatory registration.
- Much like current street operations, submitted issues how up on a triage dashboard. However, these issues can be routed directly to the department that is responsible, and if that department is utilizing Beehive, the issue shows up as a request directly in their Beehive queue.
- During triage, auto-grouping suggests possible consolidation of reported issues
- This module can supplant the current Action Center app, but provide better direct integration and routing, and provide a better user experience to the public.

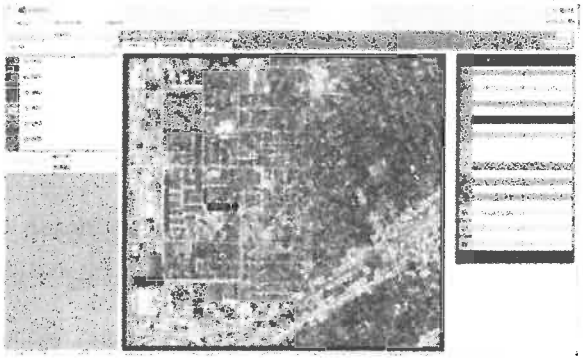
- Depending on the authentication method used, the submitter can also check on the progress of the issue, or be informed about milestones via the Beehive Message Engine.
- Beehive E311 also allows city staff to proactively alert the public about important events.
- Alerts base on geographic location
- Authentication can be provided using several methods:
    - Anonymous
    - Opt-in registration
    - Required registration

1.16 CONDUIT / FIBER NETWORK

Beehive Conduit and Fiber Module contains special functions for planning. These include:

- Tracing capabilities for end-to-end connectivity of in-use fiber to the strand level
- Available fiber tracing
- Conduit availability based on use and fill





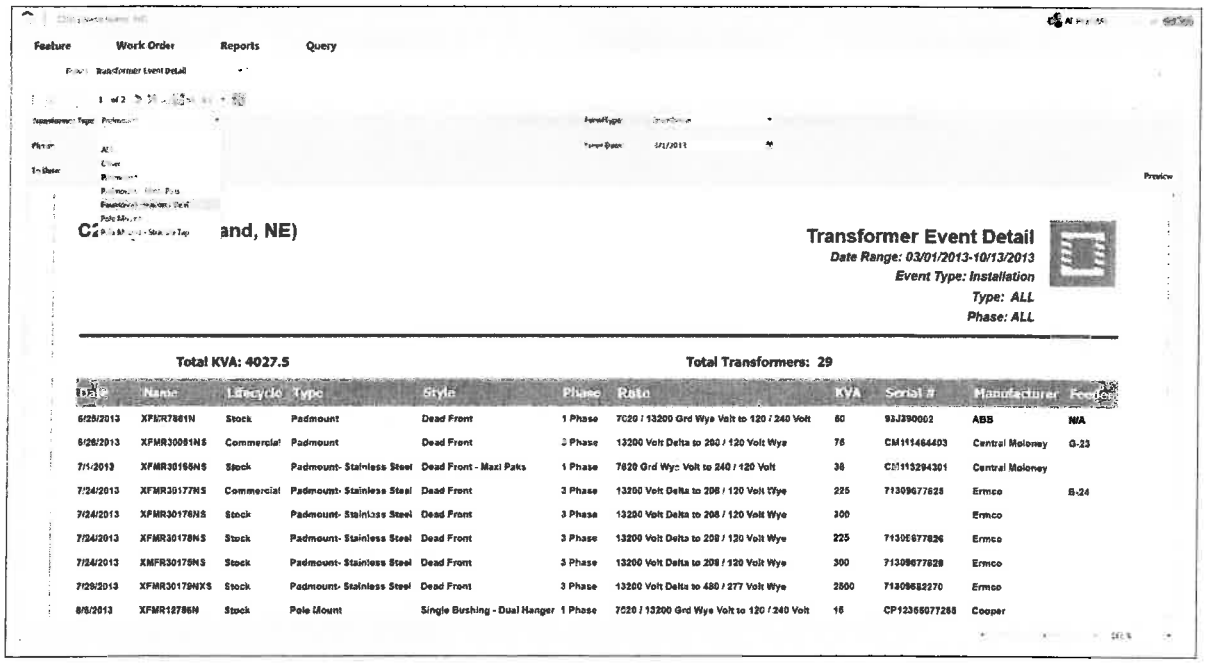
1.17 REPORTING

1.17.1 Included Reporting

For standard reports, such as activity based reporting, Beehive has created an extensive list of pre-configured ready to use reports. These reports can be modified by system administrators, or they can be used as templates for creating additional reports.

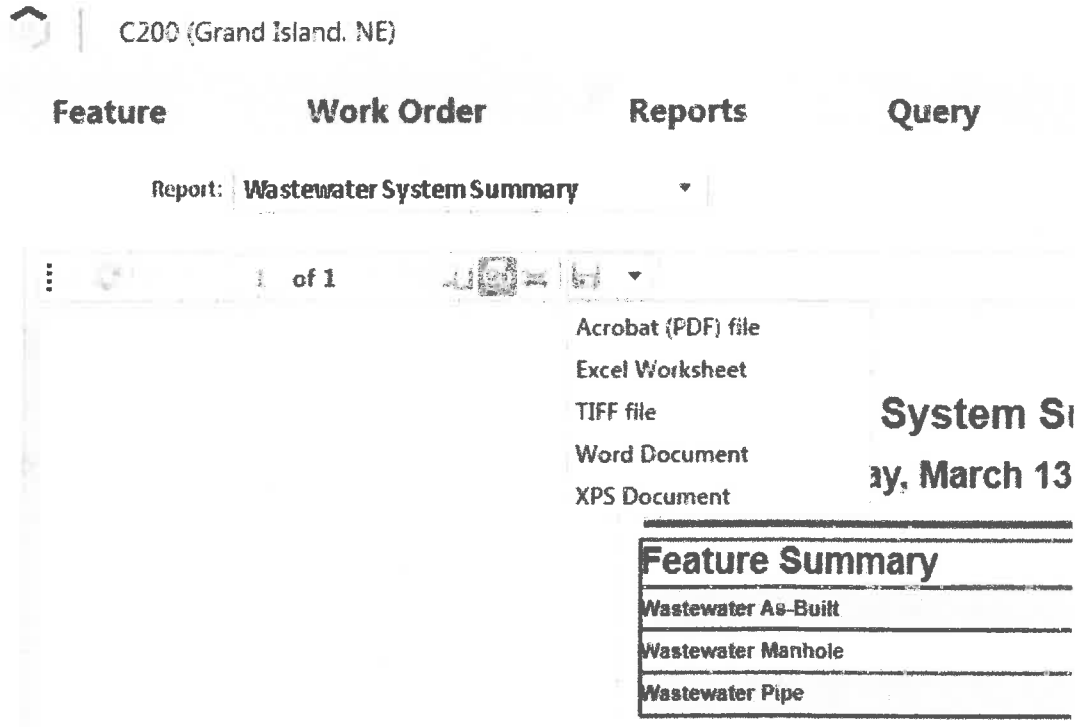
These reports are pre-configured with standard controls that can be used to filter results, such as:

- ✓ Date Range
- ✓ Event Type
- ✓ Owner
- ✓ Spatial Areas
- ✓ Etc

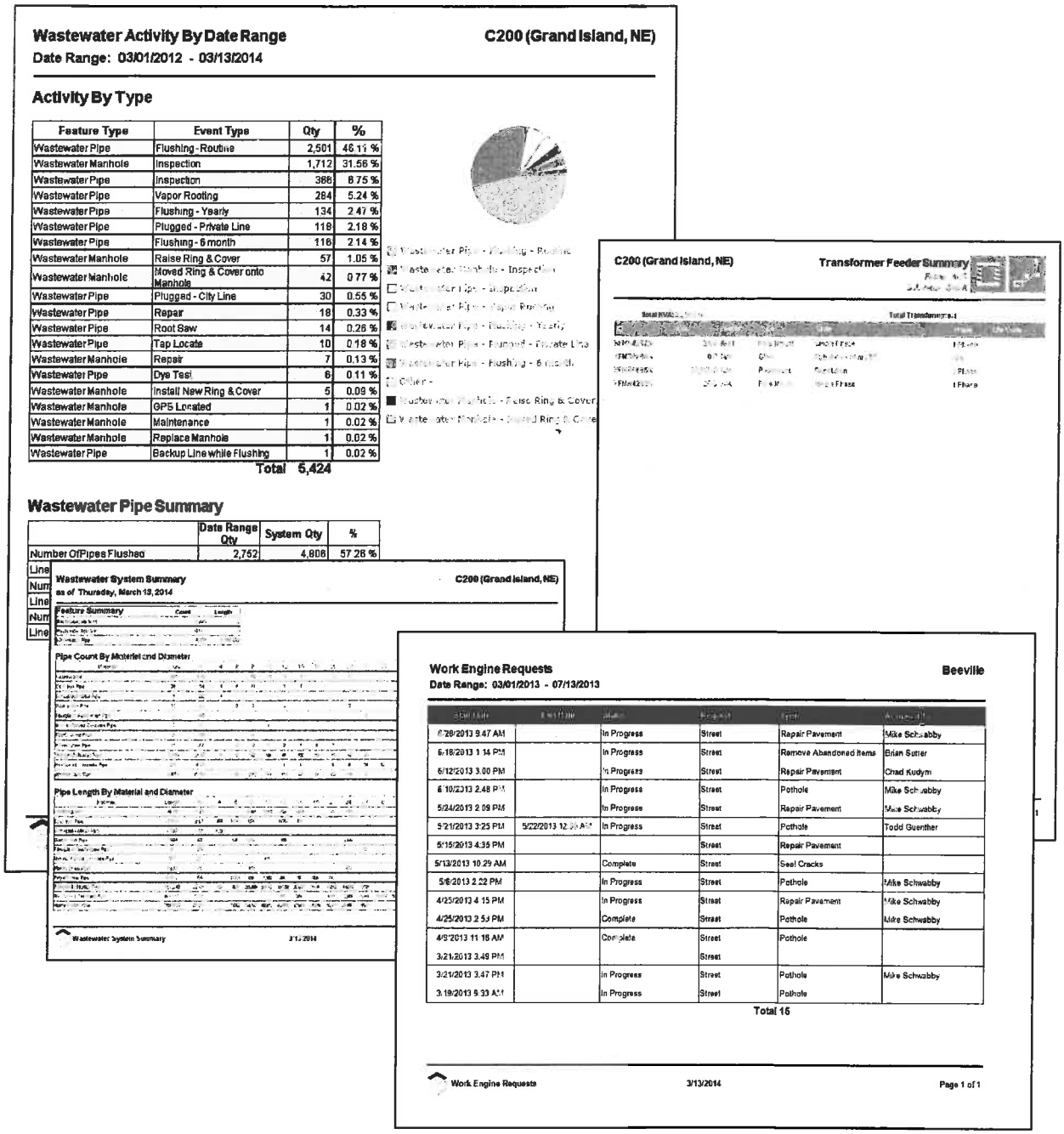


Date	Name	Lifecycle	Type	Style	Phase	Rate	KVA	Serial #	Manufacturer	Feeder
6/28/2013	XFMR7861N	Stock	Padmount	Dead Front	1 Phase	7620 / 13200 Grd Wye Volt to 120 / 240 Volt	50	93J390002	ABB	N/A
6/26/2013	XFMR30091NS	Commercial	Padmount	Dead Front	3 Phase	13200 Volt Delta to 208 / 120 Volt Wye	75	CM111464403	Central Moloney	G-23
7/1/2013	XFMR30165NS	Stock	Padmount- Stainless Steel	Dead Front - Maxi Pats	1 Phase	7620 Grd Wye Volt to 240 / 120 Volt	38	CM1113294301	Central Moloney	
7/24/2013	XFMR30177NS	Commercial	Padmount- Stainless Steel	Dead Front	3 Phase	13200 Volt Delta to 208 / 120 Volt Wye	225	71309677825	Ermco	S-24
7/24/2013	XFMR30178NS	Stock	Padmount- Stainless Steel	Dead Front	3 Phase	13200 Volt Delta to 208 / 120 Volt Wye	300		Ermco	
7/24/2013	XFMR30179NS	Stock	Padmount- Stainless Steel	Dead Front	3 Phase	13200 Volt Delta to 208 / 120 Volt Wye	225	71309677826	Ermco	
7/24/2013	XMFR30175NS	Stock	Padmount- Stainless Steel	Dead Front	3 Phase	13200 Volt Delta to 208 / 120 Volt Wye	300	71309677828	Ermco	
7/29/2013	XFMR30179NXS	Stock	Padmount- Stainless Steel	Dead Front	3 Phase	13200 Volt Delta to 480 / 277 Volt Wye	2500	71309682270	Ermco	
8/6/2013	XFMR12786N	Stock	Pole Mount	Single Bushing - Dual Hanger	1 Phase	7620 / 13200 Grd Wye Volt to 120 / 240 Volt	15	CP12356077265	Cooper	

Besides directly printing from the Report tab, Beehive reports can be exported in a variety of formats as an example, Microsoft Excel. When exporting reports to Microsoft Excel, the data from the reports is inserted into Excel in a way that allow to the information to be inserted into individual cells in Excel. This allows users to export the data from a report and then create any specialized graphs, charts, etc. within the standard Excel tool sets.



Standard report examples:



Wastewater Activity By Date Range — **C200 (Grand Island, NE)**

Date Range: 03/01/2012 - 03/13/2014

Activity By Type

Feature Type	Event Type	Qty	%
Wastewater Pipe	Flushing - Routine	2,501	46.11 %
Wastewater Manhole	Inspection	1,712	31.56 %
Wastewater Pipe	Inspection	386	8.75 %
Wastewater Pipe	Vapor Rooting	284	5.24 %
Wastewater Pipe	Flushing - Yearly	134	2.47 %
Wastewater Pipe	Plugged - Private Line	118	2.18 %
Wastewater Pipe	Flushing - 6 month	116	2.14 %
Wastewater Manhole	Raise Ring & Cover	57	1.05 %
Wastewater Manhole	Moved Ring & Cover onto Manhole	42	0.77 %
Wastewater Pipe	Plugged - City Line	30	0.55 %
Wastewater Pipe	Repair	18	0.33 %
Wastewater Pipe	Root Saw	14	0.26 %
Wastewater Pipe	Tap Locate	10	0.18 %
Wastewater Manhole	Repair	7	0.13 %
Wastewater Pipe	Dye Test	6	0.11 %
Wastewater Manhole	Install New Ring & Cover	5	0.09 %
Wastewater Manhole	GPS Located	1	0.02 %
Wastewater Manhole	Maintenance	1	0.02 %
Wastewater Manhole	Replace Manhole	1	0.02 %
Wastewater Pipe	Backup Line while Flushing	1	0.02 %
	Total	5,424	

Wastewater Pipe Summary

	Date Range Qty	System Qty	%
Number Of Pipes Flushed	2,752	4,808	57.28 %

C200 (Grand Island, NE) — **Transformer Feeder Summary**

Wastewater System Summary — **C200 (Grand Island, NE)**

as of Thursday, March 13, 2014

Feature Summary

Pipe Count By Material and Diameter

Pipe Length By Material and Diameter

Work Engine Requests — **Beeville**

Date Range: 03/01/2013 - 07/13/2013

6/28/2013 9:47 AM		In Progress	Street	Repair Pavement	Mike Schwabby
6/18/2013 1:14 PM		In Progress	Street	Remove Abandoned Items	Brian Sutter
6/12/2013 3:00 PM		In Progress	Street	Repair Pavement	Chad Kudym
6/10/2013 2:48 PM		In Progress	Street	Pothole	Mike Schwabby
5/24/2013 2:09 PM		In Progress	Street	Repair Pavement	Mike Schwabby
5/21/2013 3:25 PM	5/22/2013 12:00 AM	In Progress	Street	Pothole	Todd Guenther
5/15/2013 4:35 PM			Street	Repair Pavement	
5/13/2013 10:29 AM		Complete	Street	Seal Cracks	
5/8/2013 2:22 PM		In Progress	Street	Pothole	Mike Schwabby
4/25/2013 4:15 PM		In Progress	Street	Repair Pavement	Mike Schwabby
4/25/2013 2:53 PM		Complete	Street	Pothole	Mike Schwabby
4/9/2013 11:18 AM		Complete	Street	Pothole	
3/21/2013 3:49 PM			Street		
3/21/2013 3:47 PM		In Progress	Street	Pothole	Mike Schwabby
3/19/2013 9:33 AM		In Progress	Street	Pothole	

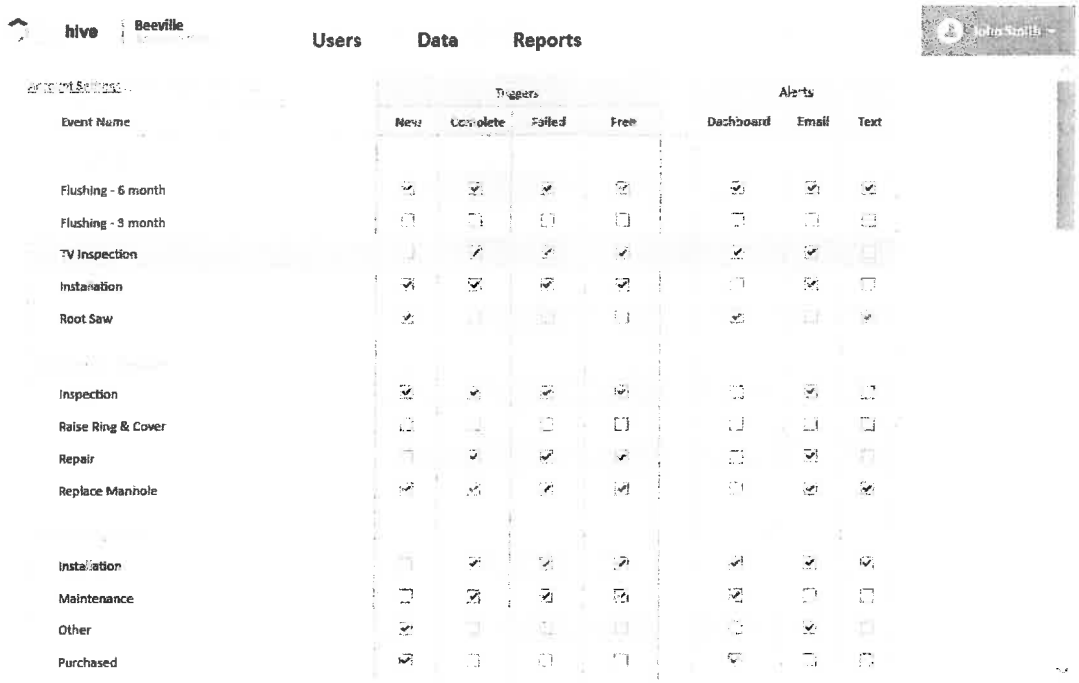
Total 16

Work Engine Requests 3/13/2014 Page 1 of 1

1.17.2 Message Engine

The Beehive Message Engine allows users to subscribe to Event Types within the system. This allows the user to be alerted whenever:

- A specific Event Type is created
- A specific Event Type is completed
- A specific Event Type fails

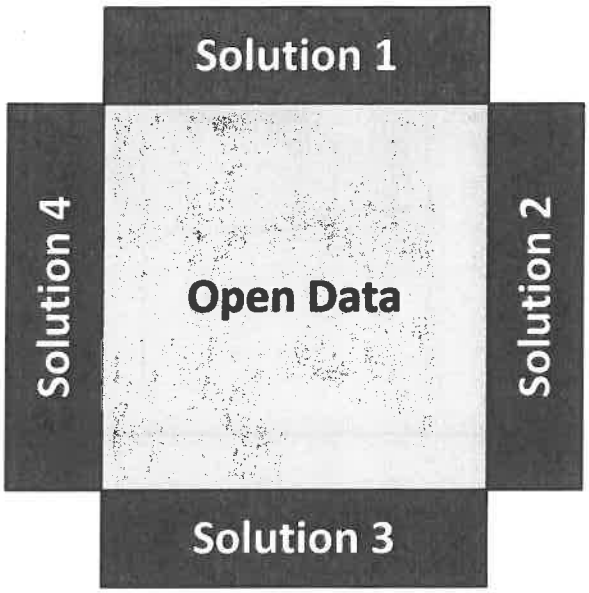


1.18 ANALYTICS

1.18.1 Open Data Access

The Beehive platform provides open access to the underlying data. This data can be used for additional analytical tools that may not be provided in the Beehive applications. The intent of this is to have unrestricted access to the data for answering very specific questions as needed.

The unique part of the Beehive platform with this is that we can provide very "flat" access to the data. By this it means that Beehive can provide record level access without having to navigate through a mass of tables. By normalizing the data and using a 'ground-up' platform design, this is now a reality. For example, all Wastewater Treatment assets and event information can be aggregated into either a single view or a very small set of tables.

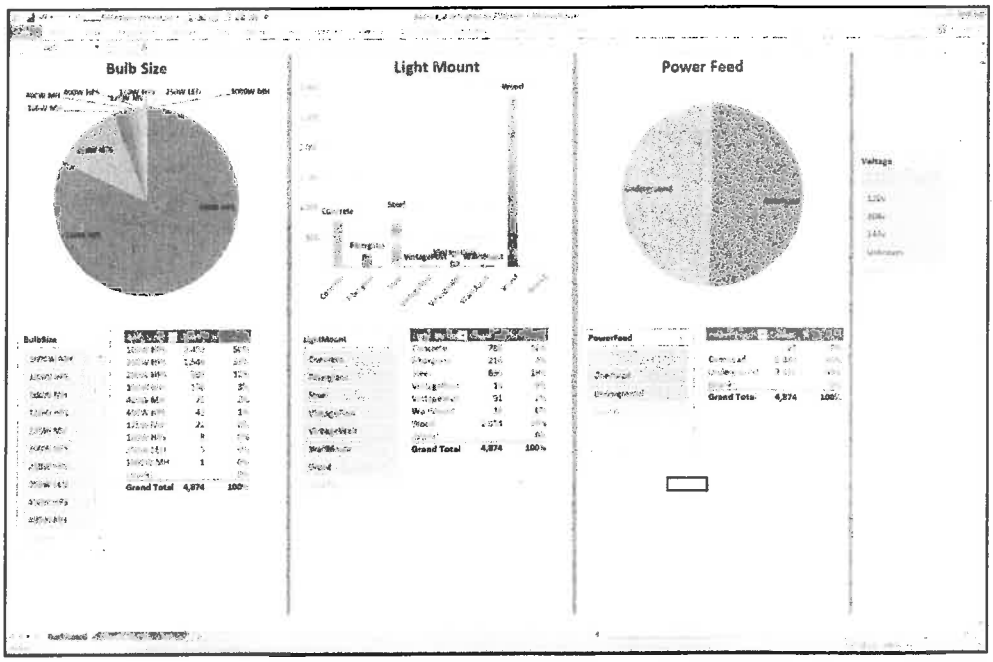


Along with a very simple structure for accessing the record level information, the Beehive platform provides open access to the data across via a wide range of third-party solutions.

1.18.1.1 Excel

As an example of Open Data Access, Beehive will supply you with a set of Excel Templates which contain live connections to Beehive data for common needs. You can modify these templates as required.

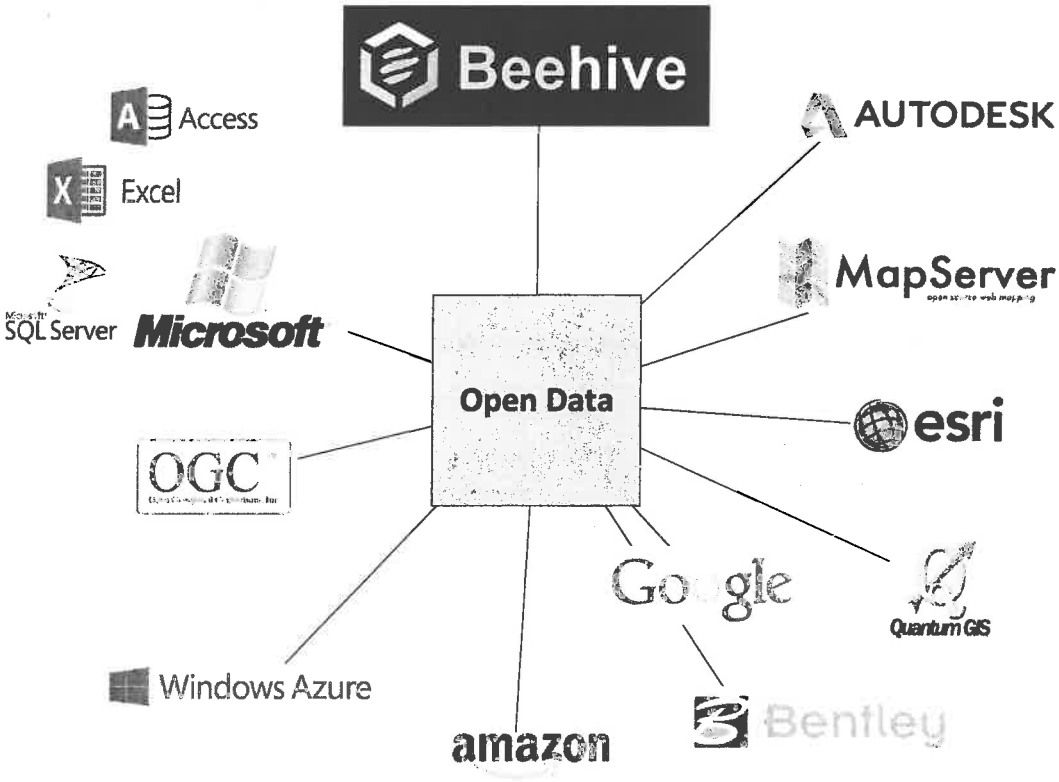
Requires Excel 2013 or Excel 2016



1.18.2 BeeBox

The Beehive BeeBox is a Windows server providing open data access in standard data formats. This server is deployed within your network domain and provides LAN speed access to a very wide range of Beehive data, including Assets and Events.

The protocols exposed allow a variety of software solutions to connect directly, including all of the applications shown below.



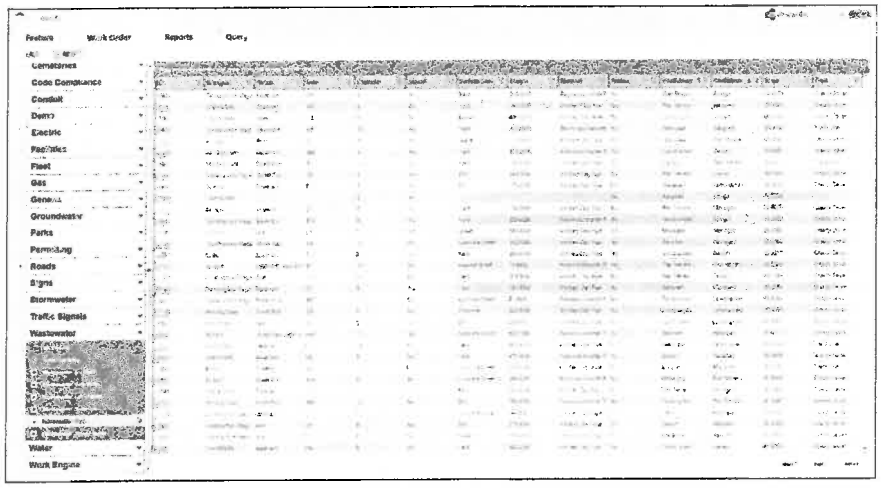
1.18.3 Query

1.18.3.1 Query Grid

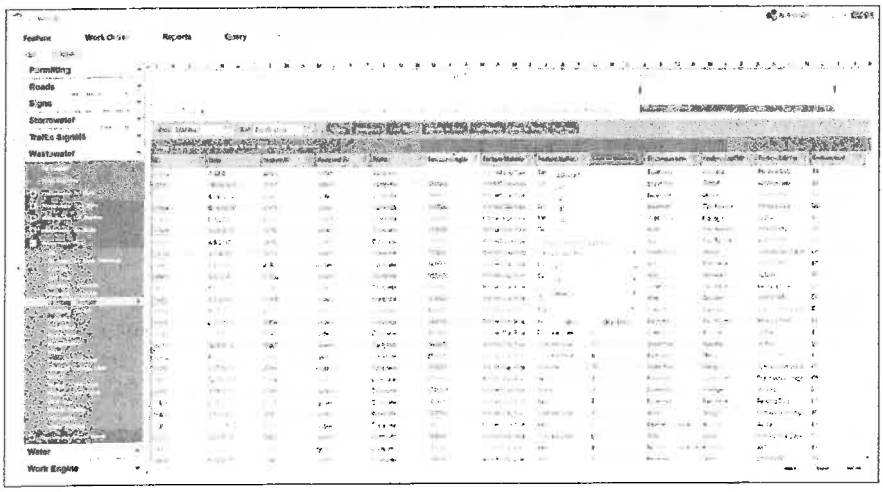
In-Application spreadsheet for ad hoc querying of data.

- ✓ Sorting
- ✓ Grouping
- ✓ Add/Subtract columns
- ✓ Export to Excel

Hyperlink to Beehive record (Feature, Event, Work Order, etc)

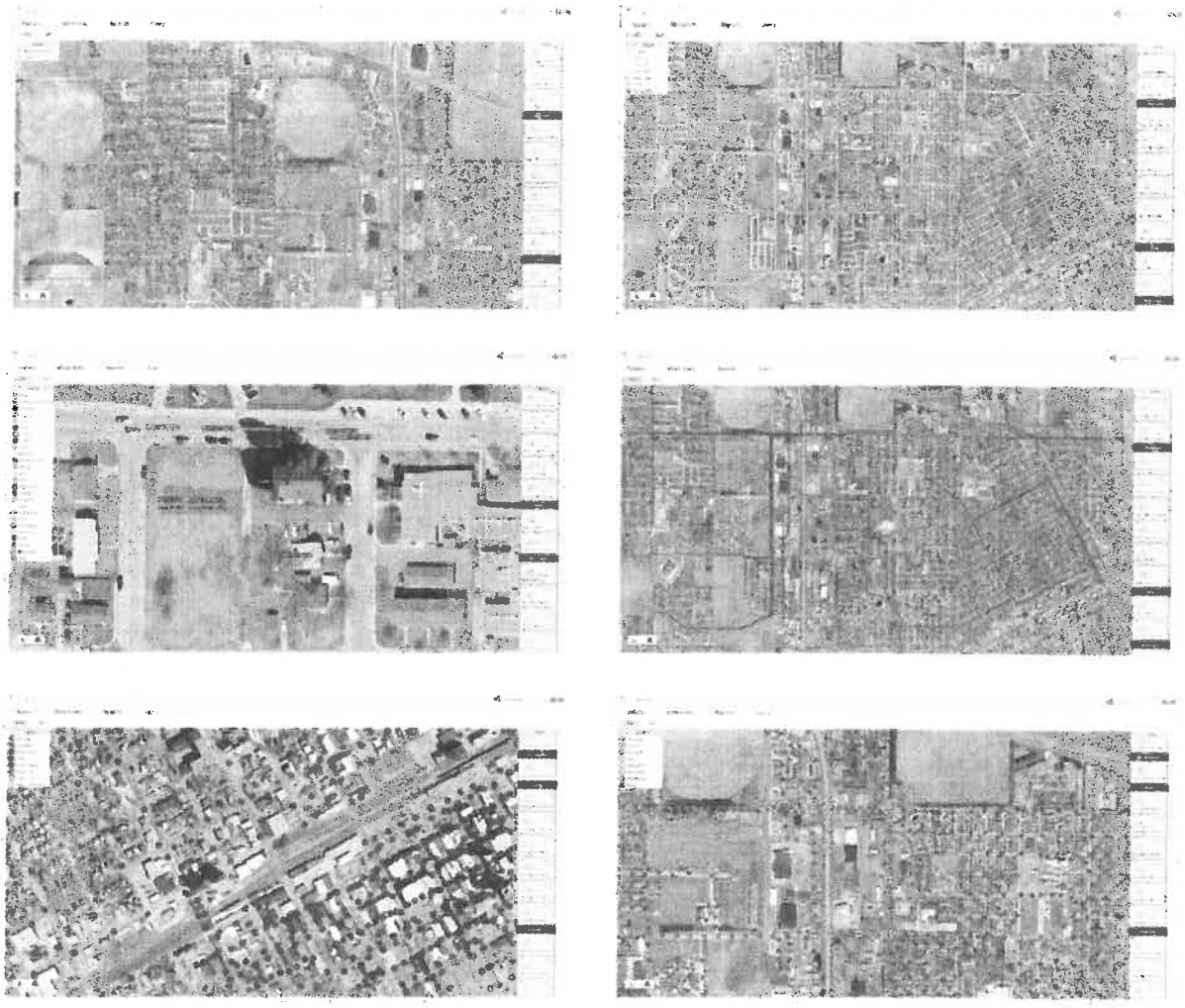


- ✓ Calendar / Histogram for date specific data (Events, Work orders)



1.18.3.2 Query Map

Designed to quickly answer common questions about asset health, work order status, Geoaudit issues.



Beehive Industries End User License Agreement

This End-User License Agreement ("EULA") is an agreement between LICENSEE (either an individual or a single entity) and Beehive Industries, LLC ("BEEHIVE") for the Beehive software product(s) (hereafter referred to as "SOFTWARE") identified in the associated purchase documents. Installation or use of this software indicates your acceptance of these terms and conditions.

I. Definitions

A. License. The rights granted by Beehive to Licensee to copy, install, use, access, display, run and/or otherwise interact with the Software for Licensee's normal business purposes.

B. Software. All Beehive object code delivered or made available to Licensee, including any updates, upgrades, support and content (e.g., audio and visual information, documents) in the course of using the product covered by this EULA.

C. Warranty Period. Time, inclusive of all agreements, where licensee is in good standing and is available to receive all benefits of this agreement.

D. Data. Information entered into, residing within or otherwise managed by the Licensee as part of its interaction with the Software.

II. Grant and Distribution

A. General. Beehive grants Licensee a License to the Software subject to Licensee's obligation to pay and any rights and limitations described in this license. This License is non-exclusive, non-perpetual, and is not transferable (unless specifically allowed). The ability to use the Software may be affected by minimum system requirements or other factors. Beehive reserves all rights not expressly granted.

B. Distribution. Licensee may install, use, and execute the software on computers owned or leased and used by Licensee, for the express purpose of supporting the activities of Licensee.

C. Limitations on Use. Licensee shall not rent, lease, lend, resell, or host to or for third parties any service or Software covered by this Agreement.

III. Fees

Licensee agrees to pay to Beehive the fees in the amounts and at the times specified in associated agreements.

IV. Term and Termination

A. Term. The term of this EULA is defined as consistent and dependent on the continuing business relationship of the parties as defined in the applicable sale documents, project scope and/or compensation agreement.

B. Termination. Governance of termination, late fees and/or penalties for early termination is defined in the applicable sale documents, project scope and/or compensation agreement.

C. Termination. Without prejudice to any other rights, Beehive may terminate this EULA if Licensee fails to comply with the terms and conditions of this EULA or any other applicable Agreement. In such event, Licensee must destroy within (30) days all of Licensee's copies of the Software and all of its component parts.

V. Reservation of Rights

A. Copyright. The Software is protected by copyright and other intellectual property laws and treaties. Beehive owns the title, copyright and other intellectual property rights in the Software. The Software is licensed, not sold. Beehive reserves all rights not expressly granted to Licensee in this EULA.

B. No Right to Re-engineer. Licensee may not reverse engineer, decompile, or disassemble the Software without prior written consent from Beehive.

VI. Transfer

Outside of the strictures of an applicable and then current Beehive Reseller Partner Agreement, there are no provisions for any transfer, operation, or use of the software by any party other than the original buyer of the Software from Beehive.

VII. Product Support Services

A. Rights and Obligations. Under this EULA, Beehive is responsible for providing working software and the necessary customer support for a typical customer to operate the software. This support may include customer phone support, direct email access to support personnel, training videos and other support services. However, nothing in this EULA requires Beehive to provide support in a specific instance or through a specific media, including in person support.

B. Consent for Use of Data. Licensee agrees that Beehive may collect and use technical information gathered as part of support services provided to Licensee, if any. Beehive may use this information solely to improve products, or to provide customized service and/or technologies to Licensee and will not disclose this information in a form that personally identifies Licensee.

VIII. Disclaimer of Warranty

A. Beehive expressly disclaims any warranty of service beyond the purpose for which the software was created. The software and any related documentation are provided "as-is" and with all faults, without warranty beyond this stated purpose, either expressed or implied. Licensee bears the risk of using the Software and the entire risk arising out of use or performance of the Software remains with the Licensee.

B. If the Licensee performs modifications, extensions, or alterations to the underlying Software or its code base, Beehive provides no warranty of use.

IX. Remedies

In no event will Beehive, its affiliates, suppliers, or certificate authorities be liable to the Client for any loss, damages, claims or costs that exceed the fees paid by client to Beehive, Beehive's entire liability and Licensee's exclusive remedy shall be at the option of Beehive to either (a) return the most recent license fee paid (pro-rata), or (b) repair or replace the Software. Beehive is not responsible for any additional liabilities including any consequential, indirect or incidental damages, any lost profits or lost savings, any damages resulting from business interruption, personal injury or failure to meet any duty of care or claims by a third party, even if a Beehive representative has been advised of the possibility of such loss, damages, claims or costs.

X. Acknowledgement

By using this product Licensee acknowledges that Licensee has read this agreement, understands it, and agrees to be bound by its terms and conditions.

XI. Applicable Law

The laws of the State of Nebraska shall govern this agreement. Licensee may have additional consumer rights under Licensee's local laws which this agreement cannot change. To the extent permitted under Licensee's local laws, Beehive excludes the implied warranties of merchantability, fitness for a particular purpose, and non-infringement.

XII. Data Management

A. Content. Beehive, Licensee, associated account users and third parties may be able to post or store materials, including Data, documents, information, communications, messages, and links to third party websites ("content") in the Software.

B. In the Case of Termination. If this license terminates, then:

1. The rights granted by one party to the other will cease immediately (except as set forth in this Section);
2. Beehive will provide Licensee access to, and the ability to export, the Licensee's Data for 90 days at Beehive's then-current rates for the applicable Software;
3. Upon request each party will promptly use commercially reasonable efforts to return or destroy all other Confidential Information of the other party.

C. Intellectual Property Rights. Beehive does not sanction or approve the unauthorized use of content protected by copyright and other intellectual property rights. Licensee understands that sharing content that violates others' copyrights and intellectual property rights violates this Agreement. Licensee represents and warrants that the use and publication of the content by Licensee and others does not violate the intellectual property rights of any third party. Licensee understands that Beehive may remove content at any time without notice when the content violates this Agreement or an applicable code of conduct, or when Beehive has a good faith reason to believe it is necessary to do so.

D. Posting Content. Licensee acknowledges that Beehive does not control or endorse the content that it and others post or provide in the Software. Beehive does not claim ownership of content that Licensee and others post or provide.

E. Ownership of Data. Beehive will not own any Licensee data. Licensee is solely responsible for maintaining and backing up any Licensee data that it uses with the Software, as represented by said backup file. Licensee, not Beehive, shall have sole responsibility for the accuracy, quality, integrity, legality, reliability, appropriateness, and intellectual property ownership or right to use such data. Beehive shall not be responsible or liable for the deletion, correction, destruction, damage, loss or failure to store any data that Licensee uses with the Software.

XIII. Third Party Software

Licensee acknowledges that the software does not cover third party software unless otherwise specified.

XIV. Interpretation of Conflicting Terms

If there is a conflict between the documents that make up this Agreement, the documents will control in the following order: Contract Terms, Scope of Services, EULA.

City of Lincoln/Lancaster County (Lincoln Purchasing)
Supplier Response

Bid Information		Contact Information		Ship to Information
Bid Creator	Robert Walla Asst. Purchasing Agent	Address	Purchasing 440 S. 8th St. Lincoln, NE 68508	Address
Email	rwalla@lincoln.ne.gov			
Phone	1 (402) 441-8309	Contact	Robert Walla Asst. Purchasing Agent	Contact
Fax	1 (402) 441-6513			Department
Bid Number	15-189 Addendum 3	Department		Building
Title	Enterprise Asset Management Solution	Building	Suite 200	Floor/Room
Bid Type	RFP	Floor/Room		Telephone
Issue Date	08/07/2015	Telephone	1 (402) 441-8309	Fax
Close Date	8/31/2015 12:00:00 PM CT	Fax	1 (402) 441-6513	Email
Need by Date		Email	rwalla@lincoln.ne.gov	

Supplier Information

Company	Beehive Industries LLC
Address	151 N 8th St Lincoln, NE 68505
Contact	Bill Sheldon
Department	
Building	
Floor/Room	
Telephone	1 (402) 4163907
Fax	1 (402) 3251524
Email	bsheldon@beehiveindustries.com
Submitted	8/31/2015 11:09:07 AM CT
Total	$0.00

Signature William C. Sheldon Email bsheldon@beehiveindustries.com

Supplier Notes

Bid Notes

Vendors must submit a written response, USB Drives and an ebid response for this RFP. See Specifications for details.

Bid Activities

Bid Messages

Please review the following and respond where necessary

#	Name	Note	Response
1	Bid Documents	I acknowledge and accept that it is my responsibility as a Bidder to promptly notify the Purchasing Department Staff prior to the close of the bid of any ambiguity, inconsistency or error which I may discover upon examination of the bid documents including, but not limited to the Specifications.	Yes
2	Insurance Requirements	I acknowledge reading and understanding the Insurance Requirements.	Yes
3	Sample Contract	I acknowledge reading and understanding the sample contract.	Yes
4	Specifications	I acknowledge reading and understanding the specifications.	Yes
5	Purchase Order, Contract and Delivery Contact	The City/County Purchasing Department issues Purchase Orders and Contracts via email to a designated contact person of the awarded Vendor. This designee will be the primary contact with the department through the delivery of the product/services. Please list the name, email address and phone number of the person who will be the contact person for the contract to be awarded.	Bill Sheldon, bsheldon@beehiveindustries.com 402-416-3907
6	Contact	Name of person submitting this RFP:	Bill Sheldon, bsheldon@beehiveindustries.com 402-416-3907
7	Electronic Signature	Please check here for your electronic signature.	Yes
8	Instructions to Proposers	I acknowledge reading and understanding the Instructions to Proposers.	Yes
9	Proposal Submission	I have prepared and delivered/mailed to the City Purchasing Office Eight (8) copies of my written proposal, four (4) USB Drives of the Proposal, and four (4) USB Drives of the Pricing as requested in the Specifications.	Yes
10	Agreement to Addendum No. 1	Respondent hereby certifies that the change set forth in this addendum has been incorporated in their proposal and is part of their bid. Reason: See Bid Attachments section for Addendum information.	Yes
11	Agreement to Addendum No. 2	Respondent hereby certifies that the change set forth in this addendum has been incorporated in their proposal and is part of their bid. Reason: ELECTRONIC ADDENDUM NOTICE - Addendum 2 is being issued to state that the release date for Addendum 1 was 8/20/2015 and not 4/10/2015 as indicated on the top of the page.	Yes
12	Agreement to Addendum No. 3	Respondent hereby certifies that the change set forth in this addendum has been incorporated in their proposal and is part of their bid. Reason: See Bid Attachments section for Addendum information.	Yes

Line Items

#	Qty	UOM	Description	Response
1	1	EA	This is to notify you that RFP 15-189 for Enterprise Asset Management Solution for the City of Lincoln is available. Please prepare your written response and return your proposals as instructed in the RFP according to the specifications. Respond to the Attribute section (above) of this electronic bid and submit before the closing date and time. Also, you are required to enter a 0 for your response in this line item. If you have any questions, call 402-441-7417.	$0.00

Item Notes:

Supplier Notes:

Response Total: $0.00

CITY OF LINCOLN NEBRASKA

Beehive

Asset Management System

As this document contains Trade Secrets that which if released would give advantage to business competitors, pursuant to Nebraska Revised Statute 84-712.05(3), this document is considered confidential and proprietary. Do not distribute or copy.

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We appreciate the opportunity to work with the City of Lincoln and are excited about expanding our partnership. This document:

- Represents our recommendations, intentions, and commitments
- Is based on information we have at this time, combining:
  - Our industry experience
  - Past projects with the City of Lincoln
  - Meetings and interviews with Lincoln staff
  - Review, analysis, and conversion of available data sets
- Assumes that it will need to be refined and require collaborative adjustment to become a definitive project scope
- Attempts to present our solution in depth, while allowing the reader to absorb it to their level of interest

This Project Summary presents the entire project in a quickly absorbable format. Specific details follow in subsequent sections.

2.1 OUR PROMISE

What we promise:

- Beehive was engineered from the ground up to be used across all infrastructure needs, without compromising the features needed for each group
- Beehive is the best solution available to cover the both the specific needs of each department as well as the broad needs of Public Works and other city departments in a consistent manner
- Beehive will substantially increase the successful adoption and consistency across all departments by balancing simplicity of use and management with the power and flexibility required
- Beehive Industries has more than thirty committed professionals who work and live in Lincoln, and want to be involved in the success of the City of Lincoln
- Our solutions are designed as a hosted SaaS solution will always ensure continuous advancement of features and technology without the traditional, costly, and painful upgrade processes
- As and evergreen product, we will evolve user interfaces to enhance functionality and always feel fresh, clean, and powerful
- We will be involved and present throughout this initiative and its life beyond to a much greater extent than any other solution available

2.2 WHAT WE WILL DELIVER AND WHEN

The Beehive solution for each functional group includes the overall Beehive platform which includes all broadly adopted and consistently used functions inherent to the software. This provides consistent experience across all functional groups. Details are provided in the **Features** section of this document.

In addition, the Beehive solution extends the platform with specific solutions in the form of modules. These modules are department/asset specific. Details are provided in the **Functional Groups** section of this document.

The software is offered as a SaaS solution, and includes licensing, maintenance, hosting, storage, training, and support on an annual basis. Conversion, deployment and project costs are required as part of this project. These are included separately from the annual software licensing and are provided in the sections below.

2.2.1 Modules / Schedule

- 18 month timeframe
- Includes specific enhancements and extension to currently deployed modules

Timeline	Critical Path	Parallel Modules	Parallel Initiatives
	Modules that are critical in nature and establish the highest risk to processes and time frames	**Modules that can be deployed in parallel with critical path modules without impacting overall schedule**	**Features and enhancements that can be delivered in parallel with new modules**
Project Start **13 six week sprints** **Project End**	• **Wastewater Collection** • **Watershed** • **Wastewater Treatment** • **Water Treatment/Production** • **Water Distribution** • **Fleet**	• **Park & Rec** • **Facilities** • **Roads** • **E311/Citizen Engagement** • **Solid Waste** • **Cone Zone**	• **Sidewalk V1.5** • **Street Ops V1.5** • **Signals V1.5** • **Time Tracking V2** • **Conduit V1.5** • **Signs V1.5** • **Stock Management**

2.2.2 Mobile Everywhere

Beehive will provide mobile functionality for all modules that work within the current mobile framework. This allows task driven assignments to be deployed to field. This supports most use cases involving asset properties, map placement, and photo management.

2.3 ENTERPRISE LICENSE

As part of this project, Beehive Industries will supply licensing with the following features:

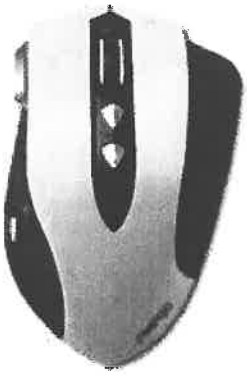
- Unlimited seat licensing in the City of Lincoln Public Works (PWU) and Parks & Recreation (PRD) for all modules included in this proposal – Use it where you need it without restriction
- Requires no additional products or licensing of other tools or products to function *
- Unlimited seat licensing

** Assumes presence of appropriate operating system*

2.4 MAINTENANCE

As part of this project, Beehive Industries will supply ongoing maintenance, which includes:

- All enhancements to existing modules
- Unlimited technical support via email, phone, web
- All cloud storage
- All premise/cloud data transfer fees
- All hosting hardware and technologies
- An on premise BeeBox server to enhance direct open data access
- Replacement of BeeBox every 3 years at no additional cost
- Unlimited access to Beehive University training
- Access to Beehive Beta programs



Name: Beehive Industries LLC

Address: 151 N 8th ST, Lincoln NE 68508

Phone: 800-875-0935

Type: Limited Liability Corporation

Ownership: The ownership of Beehive Industries is represented by:

- **Nebraska Global**
  A Lincoln based technology fund dedicated to the creation and growth of high-tech companies in Nebraska – www.nebraskaglobal.com

- **Advantage Capital Partners**
  Advantage Capital is a pioneer in utilizing public-private partnerships for investments in underserved areas – www.advantagecap.com

- **Beehive Employees**
  Employees participate in a defined allocation of distributions. While this does not represent stock ownership, it allocates distributions in the same manner as other owners.

Locations: All services, staff, product development, marketing, and deployment are run from our office in the Haymarket area of Lincoln Nebraska. Distances from Lincoln facilities:

- **City Hall** – 0.5 miles
- **Municipal Service Center** – 4.4 miles
- **Parks & Recreation** – 2.5 miles
- **Water System** – 3.0 miles
- **Water Production** – 24.1 miles

Management:

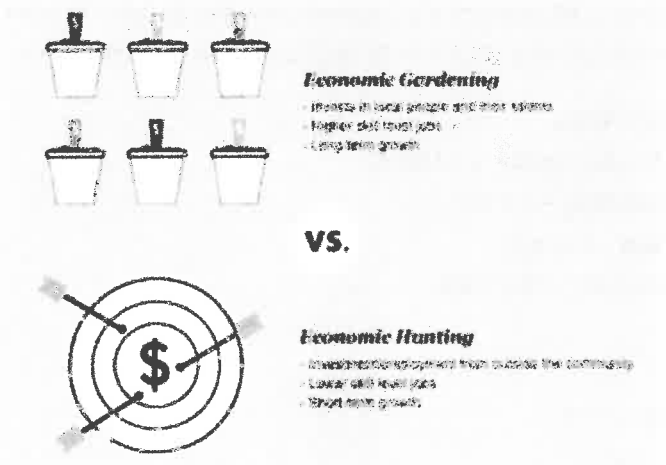
- Patrick Smith – CEO
- Board of Directors
  - Patrick Smith
  - Anthony Metzner
  - Bill Sheldon
  - Steve Kiene
  - Doug Durham

3.1 COMPANY

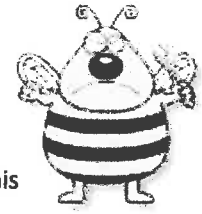
Beehive Industries was founded in Lincoln, NE in 2011 by combining local industry expertise, local entrepreneurs, and local investors into a commonly motivated team that set out to build a globally competitive asset management software company. It was created from the belief that asset management solutions had largely failed to establish the needed balance between simple to use solutions that satisfied real world usefulness and the powerful capabilities that were achievable when combined with current technologies. The Beehive solution has introduced solutions that have resulted in one of the fastest growing asset management companies in the marketplace.

The company is proud to be jointly owned by employees, Nebraska Global (www.nebraskaglobal.com) and our capital partner, Advantage Capital Partners (www.advantagecap.com) and call our Lincoln Nebraska headquarters home.

In addition to building a successful company, our team, our ownership and our sister companies are all rooted in the mission to build and expand a successful technology ecosystem within the state. By deploying capital, committing to locate our companies in our community, creating new jobs in Nebraska, and working to retail talent, we have been able to bolster Nebraska's technology and investment ecosystem over the last five years. That same commitment and work will continue well into the future and is anticipated to continue to have a major impact on the well-being of both Lincoln and the State of Nebraska for generations to come.



3.2 CULTURE



The company's culture is built on a commitment to serve beyond just the company's interests. While we have assembled the best and brightest talent spanning software development and civil engineering to customer service and marketing, we have insisted on each team member being committed to not only passionately serve our customers, but to serve their local community in the same manner. The team, alongside our family of companies, has taken this commitment seriously, accomplishing:

- 100% employee volunteer participation
- More than 20,000 hours given back to the community with an average of approximately 200 hours per employee/year above their more than full time company responsibilities.
- A monetary impact in excess of $3,000,000 in the local community through both skill based pro bono work and volunteer labor with more than 100 local non-profit organizations.
- Just a few of the local organizations we are proud to assist include Center for People in Need, The Veterans Administration, Child Advocacy Center, The Lincoln Children's Zoo, The Lincoln Community Foundation, LPS, Lincoln Snow Angels, Haymarket Blood Drive and many others.
- Beehive has been nominated for Best Culture of the Year and Technologist of the Year in 2015 by Silicon Prairie News

3.3 PROJECT TEAM

Beehive Industries currently employs more than thirty Lincoln based staff, each of which has a hand in our success, and many of whom have already been involved in the initial success and deployments in Lincoln. The primary project team for this proposed initiative consists of:

Alison Mumaugh – Deployment Project Manager

Alison will be the primary project manager for this initiative and will be the point of communication for both teams. Alison is currently involved in the Signs and Conduit deployments in Lincoln and has established a solid familiarity with the City of Lincoln Public Works team and operations. She will coordinate the majority of status updates, progress reports, and all data conversion and migration efforts.

Andrea Baack – Deployment Project Manager

Andrea will act as a secondary project manager for the deployment initiatives.

Todd Guenther – Development Project Manager

Todd will be the primary development project manager focused on all software technology initiatives and efforts to include integrations, scoped feature creation and modifications, and other development related efforts during the project. Todd may be the liaison directly with the City of Lincoln IT and Development teams as needed.

Shawn Baden – Quality Assurance Manager

Shawn will be responsible for quality assurance, testing and release management for any software releases and completed integrations.

Lance Rector – Conversion Lead

Lance has lead all of the data conversion for the City of Lincoln projects to date, as well as has reviewed all available data and database schema made available including the conversion of data from existing Oracle, Cartegraph, Hansen, MP2 and GIS databases used in production inside the Lincoln Public Works Department. He will continue in this capacity throughout this project.

Anne Ruskamp – Senior Developer

Anne is responsible for the development, administration and maintenance of Beehive's cloud and on premise infrastructure. She will be a point of contact with City of Lincoln IT staff.

Chad Michael – Chief Architect

Chad is responsible for the software development and QA teams for the company. He will both directly contribute to all development (design and architecture) efforts, integrations and deployments with the City of Lincoln project, as well as manage the entire product development team. Chad has been nominated as Technologist of the Year by Silicon Prairie News.

Chris Berger – Client Services Lead

Chris has supported all software deployments with the City of Lincoln to date. He will continue to be the primary support contact and contribute to the numerous training events held directly with the City of Lincoln staff throughout this project.

Mike Schwab – Technical Lead

Mike has coordinated detailed project requirements, client working sessions, geospatial data analysis, and other functions focused on ensuring the City of Lincoln's solutions needs are well understood, prioritized and organized for correctly scoping the product requirements meet and exceed the project requirements. He will apply specific GIS and engineering domain expertise throughout the project. Mike's knowledge of Water, Wastewater, and Stormwater conveyance will be invaluable to the project.

Bill Sheldon – Product Manager

Bill is responsible for the overall planning and success of the project by establishing the needed working knowledge of the City of Lincoln Public Works operations, project requirements, success metrics, project and implementation planning, and ultimately any enhancements or customizations to the Beehive product suite required to satisfy all project requirements. Bill has been the primary product manager throughout Beehive's history and has applied that solution and continued growth to the project requirements, and will remain involved in all aspects of the project until completion.

Patrick Smith – CEO

Patrick is ultimately responsible for the team and the company's ability to ensure the partnership with the City of Lincoln is very successful, lengthy and prosperous. He is held accountable to the board of directors and more importantly to our customers and remains committed to work with City of Lincoln leadership to ensure a successful outcome to this and future projects.

3.4 INNOVATION

At Beehive, we strive to continuously innovate and push the envelope on what the future of asset management may hold. We have a small team of developers who do nothing but R&D and are always looking to find that next new amazing innovation. Our current offering was built by this groundbreaking research and development. This team is extremely focused on industry trends and monitoring the newest hardware, software and development technologies to try to spot the next great thing.

When looking out into the not so distant future, the Beehive R&D team is beginning to put focus on some of the following items:

- Drone technology for rapid data capture
- Smart watch tools for simple work force management
- Spatial time tracking
- Wearable technology
- Etc

These are just a small sampling of the items that our team has in the research and development pipeline. By collaborating with Beehive, the City of Lincoln can help to shape the future of what is to come in asset management by working with our R&D team on special projects.

4 SYSTEM REQUIREMENTS

4.1 DESKTOP REQUIREMENTS

Operating Systems:

- Microsoft Windows 7 Service Pack 1 (32 / 64 bit)
- Microsoft Windows 8 (32 / 64 bit)
- Microsoft Windows 8.1 (32 / 64 bit)
- Microsoft Windows 10 (32/64 bit)

Hardware:

- Dual-Core 2Ghz+
- Minimum 2 GB RAM
- 10 GB Free Hard drive space
- Minimum monitor resolution of 1024x768
- Internet connection

Third Party applications or licensing:

- None

4.2 MOBILE REQUIREMENTS

Operating Systems:

- iOS 8 +
- Android 4.0.3 +

Known supported devices:

IOS Devices:

- iPhone 4s
- iPhone 5
- iPhone 5c
- iPhone 5s
- iPhone 6
- iPhone 6 Plus
- iPad 2
- iPad 3rd generation
- iPad 4th generation
- iPad Air
- iPad Air 2
- iPad mini
- iPad mini 2
- iPad mini 3

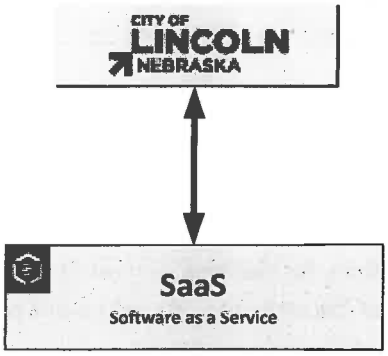
Android Recommended Devices

- Samsung Galaxy S3
- Samsung Galaxy S4
- Samsung Galaxy S5
- Samsung Galaxy S6
- Samsung Galaxy Note 3
- Samsung Galaxy Note 4
- Motorola Moto G (1st generation)
- Motorola Moto G (2nd generation)

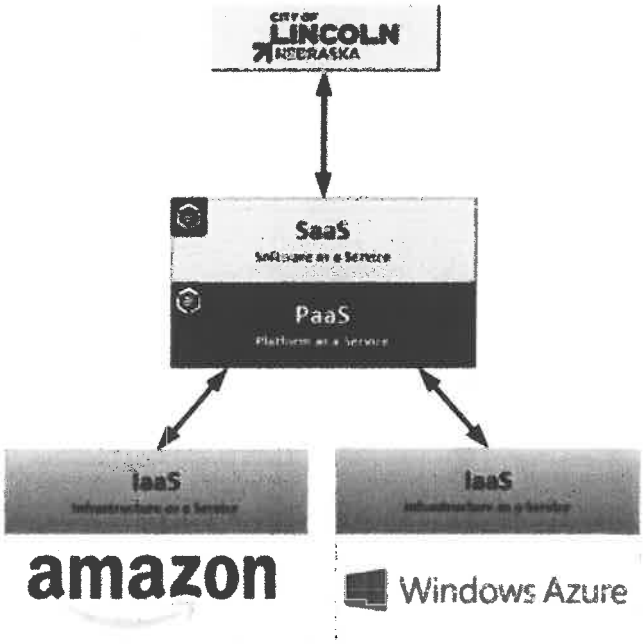
4.3 SERVER REQUIREMENTS

4.3.1 Application Server

Beehive is a cloud-based solution that does not require purchase of servers for primary function. We continually evaluate advances in cloud technologies and adapt to take advantage of those advances. Our primary criteria includes performance, reliability, and recoverability. To achieve this, we utilize tools from multiple vendors.



All this goes into what we call the Beehive Cloud. This involves multiple Beehive "POD"s which replicate all aspects of Beehive functionality and provide fail-over between cloud technologies.



Currently, Beehive utilizes cloud technologies from both Microsoft and Amazon.

azure.microsoft.com aws.amazon.com/ec2

All cloud costs are included in the indicated maintenance fees.

4.3.2 File Storage

Beehive allows the attachment of any file to a variety of elements including assets, activities on assets, and work orders. Beehive utilizes a hybrid model that allows attachments to exist:

- In the cloud
- On premise within your network
- A combination of the two

Beehive provides up to 1 terrabyte of cloud storage as a part of this solution. However, from a practical standpoint, an on-site storage solution may be preferred.

For large files, the transfer time between cloud and user can be problematic. A key example of this is videos related to street evaluations and sewer inspections, high-resolution photos, or certain types of as built files.

In addition, on-site storage can allow direct backup, which fall under PWUs standard backup procedures.

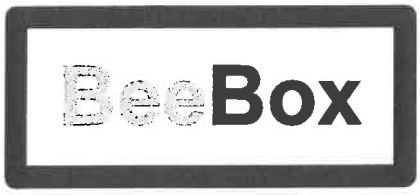
If desired, there are several options for handling on premise file storage. The amount of storage required is very much subject to the level of the city's use. Based on our previous work with PWU, we assume that this centralized storage / network share already exists.

4.3.3 Third Party software

Beehive requires no third party software for functionality

4.3.4 BeeBox

Although not required for proposed functionality, Beehive will provide an on-site server to enhance LAN based data access.



Possible functions of this server include:

- Open data source for higher performance access
- Integration point for internal integrations, including ESRI syncronizaiton
- Data Backup source

Beehive will retain ownership of this server and update it every three(3) years of software maintenance.

[CONTAINS PROPRIETARY INFORMATION THAT IS NOT GENERALLY DISTRIBUTED TO THE PUBLIC. IT CONTAINS DESCRIPTIONS OF INNOVATIONS AND PROCESSES SPECIFIC TO THIS VENDOR AND DISCLOSURE OF THIS INFORMATION IS LIKELY TO CAUSE SUBSTANTIAL HARM TO THE COMPETITIVE POSITION OF THE VENDOR AND WILL TEND TO HARM THE CITY OF LINCOLN'S ABILITY TO OBTAIN FURTHER PROPRIETARY INFORMATION THAT MAY BENEFIT THE CITY DIRECTLY]

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7.1 SERVICE PARTNERS

All services related to the proposes solution are provided by Beehive staff. No other partners are involved.

7.2 SOLUTION PARTNERS

Beehive solutions are based on technologies from Microsoft and Amazon. Beehive has had direct and active involvement from Microsoft from the beginning.

amazon web services™ | EC2

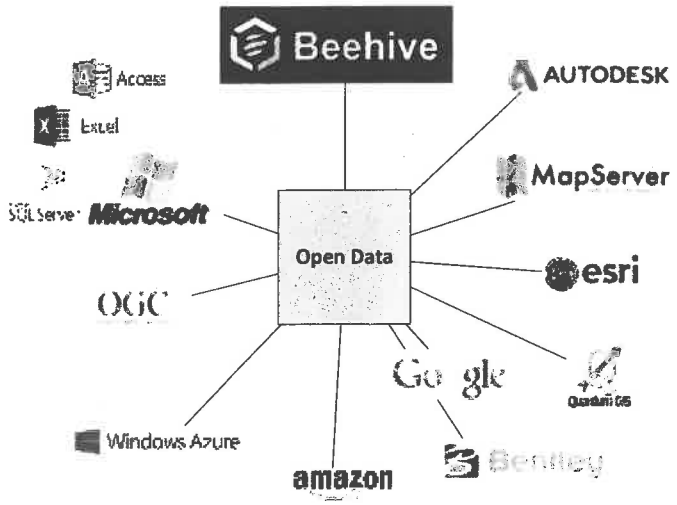
Microsoft BizSpark™

Microsoft Azure

Microsoft

7.3 INTEGRATION PARTNERS

Due to Beehive's Open Data approach, we can interface with a variety of third party software tools. While none of these is required for this solution, the availability of integration can provide flexibility to your needs.



8.1 DATA REVIEW TRAINING

Data review will be performed by module leaders that are designated by the city. The designated module leads will receive individual training from Beehive through the data review process so they are well equipped to understand the product and how the data is being handled.

The data review process will be finalized by the completion of a checklist. This checklist will be created by the deployment manager during the preliminary conversion phase with help from the module team. Modifications to the checklist can be made during the conversion process and will be agreed to by both the module team and Beehive team. The checklist will be reviewed, completed, and signed by both the module team and the Beehive team. Completed checklists will be managed by the Beehive deployment manager, copies can be made available if needed.

8.2 GENERAL TRAINING

For the module leaders, some element of training will have already occurred to provide a platform for preliminary data conversion review. This task completes and formalizes training for the remaining members of the functional group. Beehive will provide an agenda and a checklist for these trainings. Checklists will be generated based on the content of the module and the daily task of the functional group. Completed checklists will be managed by the Beehive deployment manager, copies can be made available if needed.

Whereas training on enterprise software often requires intense day long sessions, we recommend shorter, but more frequent training. This allows users quick success in early training and use in production, which prepares them better for more advanced training.

Training times will be coordinated by the module leaders and the Beehive team to find mutually available times. Module leaders, although already trained, will typically attend training sessions for the remaining staff. Training is generally broken up into two sessions to be completed in order but not necessarily on the same day.

Beehive Introduction and Basics: 90 Minutes – Up to 50 People

This session will cover the basics of Beehive such as navigation and searching in a lecture style training. The goal of this introductory session is to get users familiar and comfortable with the look and feel of the software.

Module Specific Training: 60-90 Minutes – Up to 12 People

This session will be tailored very closely to the needs and day-to-day activities of the trainees. During this training session, all trainees will have an individual computer available with Beehive installed to allow for practice. This will include detailed training such as creating/updating features and adding events; it will also leave ample time for questions.

Live Training: 30-90 Minutes

After users have been through classroom training, Beehive staff will visit users in their workspace, as they go into production with Beehive. This will provide direct support during the initial direct use of Beehive. These types of workspace sessions will occur periodically as needed.

During the year that follows deployment of each module, Beehive and the module teams will meet quarterly to check in on adoption, needed configuration changes, and needs for additional training. This will also serve to identify seasonal adjustments in workflow that were not identified in earlier stages. Beehive will make every attempt to enhance the users experience through configuration and training that are covered under the Support section. Items outside of the contract scope can be defined and estimated for further development.

9.1 TRAINING

Beehive provides unlimited post-deployment training covering all licensed Beehive software. This can be utilized for new hires, refreshers, or any other needs you have. Depending on the specific task, this may take the form of webinars, video tutorials, documentation, or on-site sessions.

9.2 TECHNICAL SUPPORT

After training has been completed, users will be encouraged to contact support with any questions or technical issues they encounter with Beehive. We believe that contacting support should be a simple process so we are available through either phone or email, whichever the user prefers, from 8:00 AM – 5:00 PM CST, M-F. All emails will receive a reply the same day they are sent. If necessary, on-site support and appointments outside of normal support hours can be requested.

9.2.1 Hours of Operation

Standard Beehive Support are from 8:00am – 5:00pm CST, Monday-Friday, except the following holidays:

- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Eve (Floating Holiday)
- Christmas Day

In addition to these hours, Beehive monitors server functions 24 x 7.

9.2.2 Response Times

If an Error Report is submitted to Beehive via telephone, Beehive shall comply with the response times set forth below based on the severity level of the particular Error. For Error Reports submitted via any other method, Beehive will use commercially reasonable efforts to comply with the following response times but does not guarantee such compliance.

Severity Level: Critical

A Critical Severity issue has significant to critical business impact on a production system, resulting in customer's production system being either down, or functioning at a significantly reduced capacity.

Beehive agrees that it will provide a response by a qualified member of its staff to begin to diagnose and to correct a Critical Severity fault within one (1) business day after notification by Customer via telephone. Beehive will use commercially reasonable efforts to resolve Critical Severity faults as soon as possible. The resolution will be delivered to Customer as a work-around or as an emergency software fix. If Beehive delivers an acceptable work-around instead of a solution, the severity classification will drop to a Medium Severity or lower.

Severity Level: Medium

A Medium Severity issue has some business impact on a production system, resulting in some functionality loss on Customer's production system. The Software is usable, but does not provide a function in the most convenient or expeditious manner.

Beehive agrees that it will provide an initial response by a qualified member of its staff to begin to diagnose a Medium Severity fault within one (1) business day of notification by Customer via telephone or email. Beehive will use commercially reasonable efforts to resolve Medium Severity faults within thirty (30) days or in the next Update of the Software. If Beehive determines, in its sole discretion, that the requirement is unique to Customer's operations, Beehive will notify Customer within two (2) weeks of receiving notification of the fault with an appropriate recommendation and estimate for resolving the incident.

Severity Level: Low

A Low Severity issue is for non-production questions including general usage questions, issues related to a non-production environment, or feature requests. There is no impact on the quality, performance or functionality on Customer's production system.

Beehive agrees that it will provide an initial response by a qualified member of its staff to begin to diagnose a Low Severity fault within one (1) business day of notification by Customer via telephone or email. Beehive does not guarantee a resolution time for Low Severity incidents.

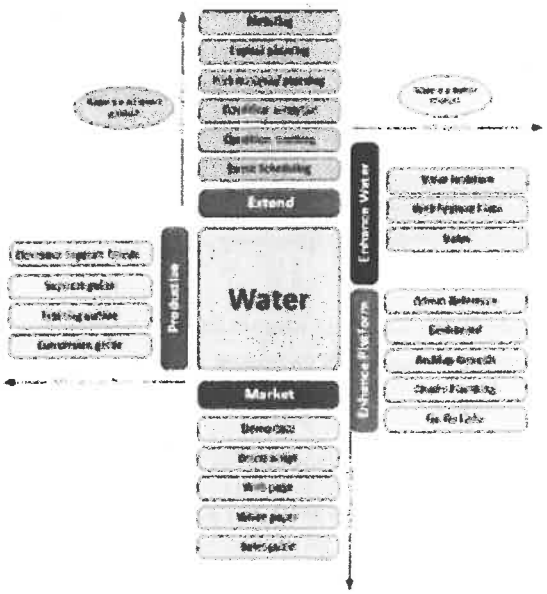
9.2.3 Customer Portal

Beehive will provide management with the ability to access an online portal to check the status of support requests. Portal logins and training will be provided by the Beehive support team.

9.3 SOFTWARE UPDATES

Beehive will continue to enhance the features of the modules you use. On existing modules, our development tends to fall into two categories:

- Enhancement – Making what you have work better
- Extension – Making what you have do something different



In most cases, all enhancements are provided free of charge to all of our customers. Extensions may or may not carry additional charges.

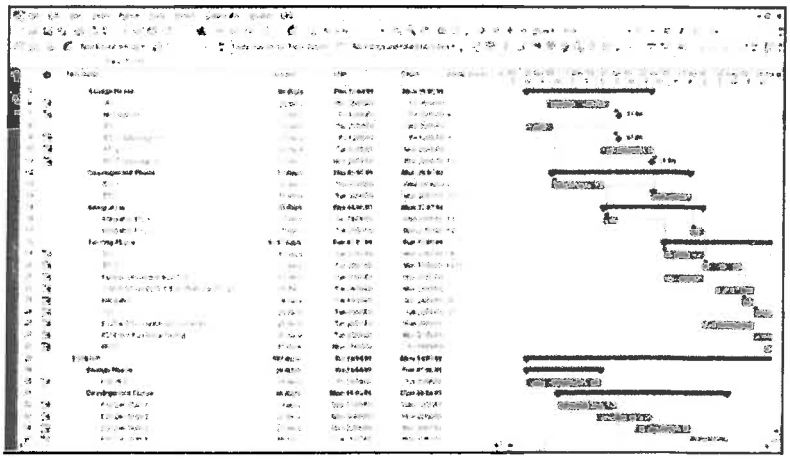
Generally software updates are intended to be small, continuous, and drama free.

9.4 HARDWARE

Beehive will provide all warranty service to the BeeBox server described above. All operating system updates will be performed by Beehive.

To facilitate maintenance and configuration of data sources, Beehive will require remote desktop access to this server. In rare circumstances, physical access may be needed.

Beehive will utilize Microsoft Project for early planning and initial discussions. This will help form an overall project approach and allow quick modification of dependent phases for initial planning discussions.



While Gantt driven project management can be helpful in the early stages of large projects, its use in process is more geared to resource management than task management. So in building a bridge when you have a large number of homogenous resources, such as metalworkers, a Gantt method works well. However, for task driven projects with expertise driven success, Gantt tends to hide important tasks and accountability.

Beyond initial planning, we prefer a methodology that focuses on tasks, assignments, and accountability to the tasks, the calendar, and the team. This method is described below.

10.1 METHODOLOGY

This project will utilize a method that breaks the tasks into **Sprints** and **Iterations**.

- **Sprint** – a specific time frame with specific expectation of deliverables. The completion and quality of Sprints are the best indicator of overall project process.
- **Iteration** – a smaller period of time to track progress through the sprint.

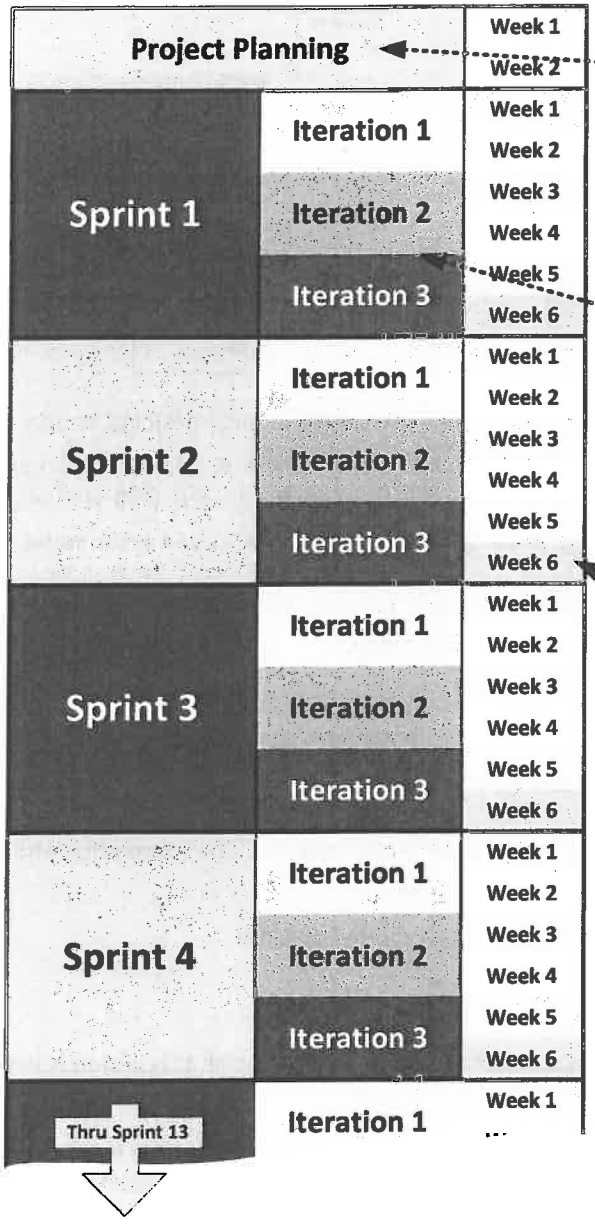
For the project as currently defined, Beehive recommends:

- **Six week sprints** – although deliverables will occur throughout each sprint, this period is long enough to plan for a specific "theme" for the sprint.
- **2 week Iterations** – this allows three iterations per sprint. When planning sprints we generally put the highest risk elements for that sprint in the first iteration. This allows the module team to react to issues that are identified early.
- **13 total sprints** – This defines a period of 18 months from project start to finish of deployment.

Note: Due to the optional nature of the AVL option, this does not include an AVL plan which may extend or alter the number of sprints if included. It also does not account for schedule conflicts identified by PWU or PRD.

10.1.1 Project Cadence

This outline defines the rhythm of the project through the use of sprints and iterations. The lists to the right are important aspects of this process and ensure continuous and effective communication.



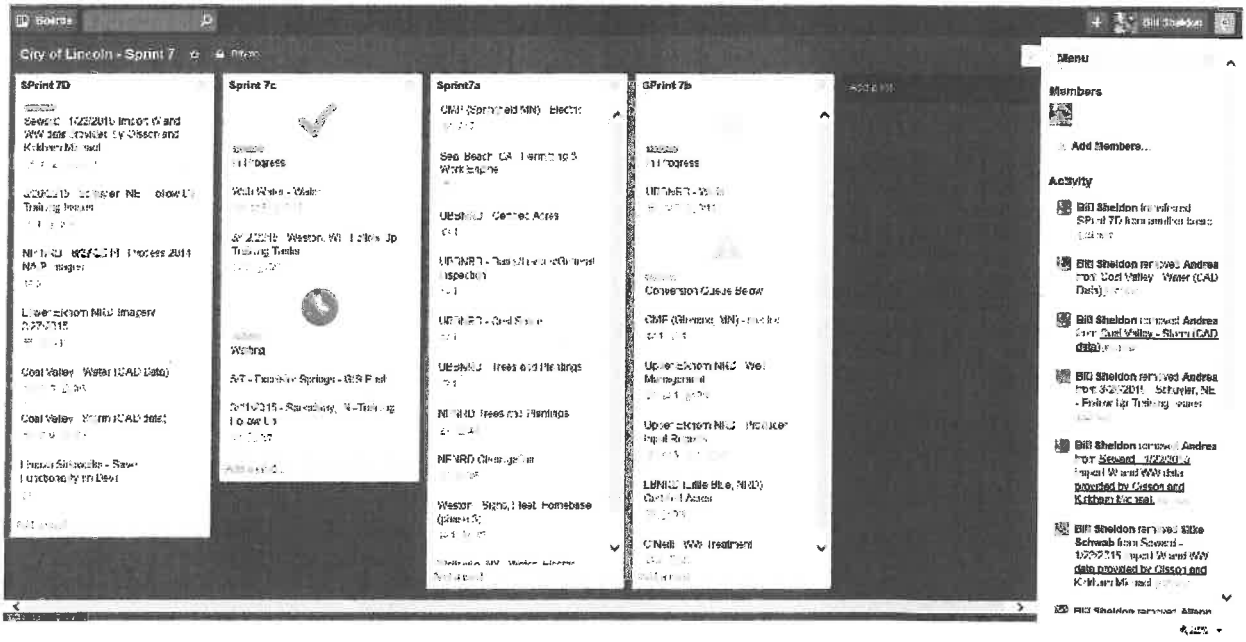
Project Planning
- Three two hour meetings over two weeks
- Review and revise current Sprint plan presented by Beehive
- Agree on communication plan
- Planning for Sprint 1

Iteration Review
- On-site meeting the end of each two week iteration
- City module leader(s), Beehive project manager(s)
- Review iteration task status
- Identify any risks to this iteration
- Jointly modify iteration plan if needed
- PM will output Sprint status report after each iteration

Sprint Review
- On-site meeting during last week of each Sprint
- City module leaders, City management, Beehive team
- Review current Sprint status
- Check-off of deliverables
- Retrospective – What worked, what didn't
- Planning for next Sprint
- Adjustments to overall Sprint plan
- Introduction of new Module Team members if appropriate
- PM will deliver Sprint review/revised Sprint plan

10.1.2 Iteration Tracking

Beehive utilizes a project management toolset that provides complete transparency to sprint progress through the use of swim lanes. Prior to each sprint, the Beehive project manager will post all sprint tasks in the left hand column of the sprint board.



Tasks are assigned to members of the team, which can be city and/or Beehive staff. As tasks progress they are moved across the board to the right through stages such as In Progress, Complete, In Trouble, Validated. These stages will be agreed upon during the Project Planning phase.

The sprint boards will be directly visible by all members of the team at all times.

10.2 CITY RESPONSIBILITIES

Project management is a collaborative process and will need the active participation of City of Lincoln staff. This section will identify the types of teams needed and associated logistics.

10.2.1 City Project Team

This city project team has responsibilities in overall success of the project, and will need to provide input and effort through the entire project. In cooperation with Beehive, this team will keep a pulse on the overall health and pace of the project, as well as identifying upper management needs. Responsibilities include:

- Attendance at Project Planning meetings identified above
- Substantial presence at Sprint Review meetings identified above
- Involvement and approval of each module team defined below

- Consistently communicating management commitment to the project to all participants
- Quickly and clearly communicating concerns about Beehive performance
- Participation in adjustments to scope, schedule, or expectations

Minimally, this team would include some combination of:

- Representative(s) of upper management with the authority to approve scope and schedule changes
- Representative(s) of technical services
- Staff members who are assigned to ensure consistent use of certain features **across** modules within the department to ensure that management visibility is maintained and that cross-division KPIs provide consistent results. These might include features such as:
    - Condition management
    - Confidence levels
    - Workforce management
    - Time tracking
    - Material tracking
    - Reporting

10.2.1.1 City Project Team Commitments

Time commitments from PWU and PRD members of the project team will tend to come in several categories:

- Attendance at initial planning meetings
    - *Two 3 hour planning sessions in first week*
    - *One 1 hour meeting per week for the following 5 weeks*
- Assignments resulting from those meetings
- Attendance at Sprint review/kickoff meetings *(1 hour review, followed by 2 hour planning every 6 weeks)*
- Assignments resulting from Sprint meetings
- Ad hoc meetings to address mid-Sprint issues impacting the critical path of the project
- This team may also have internal project management tasks that do not directly involve Beehive

10.2.2 Module Teams

For each module deployed in Section **Error! Reference source not found.**, city staff need to be involved who re committed to, and have a vested interest in, the success of that module deployment. This team should consist of 2-3 members. While other division staff will certainly participate in the success, this team needs to remain small to maintain authority and decisiveness.

Together, this team needs to clearly represent:

- Expertise – Knowledge of their groups vocabulary, processes, and needs
- Opinion – Ability to make a choice when confronted with possibilities
- Authority – The ability to make a decision and stand behind it

Responsibilities of this team include:

- Substantial presence at Sprint Review meetings identified above that involve that module
- Consistently communicating commitment to the project to division staff
- Quickly and clearly communicating concerns about Beehive performance to Beehive staff and/or to the city project team identified above
- Participation in adjustments to scope, schedule, or expectations for that module

The same person may be involved in multiple module teams, and module deployments will certainly overlap. This should be considered in both planning and selection of module teams.

10.2.2.1 Module Team Commitments

Time commitments from PWU and PRD members of the module teams will tend to come in four:

- Attendance at Sprint review/kickoff meetings *(1 hour review, followed by 2 hour planning every 6 weeks)*
- Assignments resulting from those meetings
- Distributing and monitoring assignments to related city staff for sprint needs
- Attendance at related Iteration meetings *(One 1 hour meeting every 2 weeks)*
- Distributing and monitoring assignments to related city staff for iteration needs

10.2.2.2 Other Staff Commitments

The project will involve city staff who are not part of the Project or Module teams. These tasks include:

- Delivery of source data for conversion
- Assignments related to data interpretation
- Attendance at Training
- Configuration of network resources
- IT troubleshooting of end user devices, operating systems

Administration of security, permissions, and reference data should be carefully controlled during deployment. These items include:

- User Names/Passwords
- Groups and Permissions
- Master lists for asset properties
- Other reference data

During deployment, Beehive can manage the tasks related to these items, but the city may wish to have direct involvement during deployment to aid in the ultimate transition of responsibility.

10.2.2.3 Post Deployment Commitments

At the completion of all deployments, city staff will retain certain responsibilities:

- Continued administration of Users and Passwords
- Continued administration of Groups and Permissions
- Continued administration of reference data
- Support of network or desktop issues
- Backup of file attachments if stored on-premise
- Determination of continued training needs
- Evaluation and feedback of Beehive post-deployment support quality

These tasks can be handled by a combination of:

- Beehive Support
- Centralized PWU and/or PRD staff
- At the functional group level

10.2.3 Logistics

This process defined a certain number of project and sprint review meetings. While Beehive would be glad to sponsor those meetings at our offices in the Haymarket, it is likely that for your convenience many of these will be held at your facilities. This would require:

- A space sufficient to the number of participants
- A projection screen
- Wireless internet connectivity

- Beehive Industries will provide a projector capable of a resolution of at least 1024 x 768 and utilizing an HDMI port

10.2.4 Communication

Much of the communication will be related to the project and sprint meetings described above. Between those related status reports and the sprint task boards, this constitutes the major actionable communications.

We strongly encourage verbal communication via on-site discussions or phone conversations, particularly during portions of the project that are confusing or where the "flavor" of possible choices needs to be conveyed. A five minute conversation can often clarify what three days of emails cannot.

We also strongly encourage that these verbal conversations be followed immediately with a written conclusion, outlining the action items resulting from the conversions. This might take the form of email, or direct additions to the project board.

10.3 SCHEDULE

- 18 month timeframe
- Includes specific enhancements and extension to currently deployed modules

Timeline	Critical Path	Parallel Modules	Parallel Initiatives
	Modules that are critical in nature and establish the highest risk to processes and time frames	Modules that can be deployed in parallel with critical path modules without impacting overall schedule	Features and enhancements that can be delivered in parallel with new modules
Project Start **13 six week sprints** **Project End**	• **Wastewater Collection** • **Watershed** • **Wastewater Treatment** • **Water Treatment/Production** • **Water Distribution** • **Fleet**	• **Park & Rec** • **Facilities** • **Roads** • **E311/Citizen Engagement** • **Solid Waste** • **Cone Zone**	• **Sidewalk V1.5** • **Street Ops V1.5** • **Signals V1.5** • **Time Tracking V2** • **Conduit V1.5** • **Signs V1.5** • **Stock Management**

Arbor Day Foundation

Dan Lambe – President
dlambe@arborday.org

Matt Harris - CEO
mharris@arborday.org

211 N 12th St
Lincoln, NE 68508

402-473-9573

City of Kearney Nebraska

Kirk Stocker – Utilities Director
kstocker@kearneygov.org

Tony Jelinek – Asst Utilities Director
AJelinek@kearneygov.org

1220 E 26th St
Kearney, NE 68847

308-233-3268

City of Ozark Missouri

John McCart – GIS Coordinator
jmccart@ozarkmissouri.org

205 N. 1st Street
Ozark, MO 65721

417-581-2407

Beehive

City of Lincoln

Asset Management System - Pricing

Line	Item	Year 1	Year 2	Year 3	Year 4	Year 5
1	**Deployment across all functional groups**	$ 741,000				
2	**Annual Maintenance**		$ 154,000	$ 154,000	$ 154,000	$ 154,000
3	Licensing					
4	Technical Support					
5	Software Updates					
6	Server hardware					
7	Third partly licensing					
	Base System Totals	$ 741,000	$ 154,000	$ 154,000	$ 154,000	$ 154,000
8	**AVL**					
9	AVL data warehouse & API	$ 31,150				
10	Maintenance for data warehouse		$ 8,482	$ 8,482	$ 8,482	$ 8,482
11	User interface	$ 7,974				
12	License for user interfaces (included in enterprise)		$ 0	$ 0	$ 0	$ 0
	Conduit/Fiber tracing	$ 12,460				
13	Capacity identification					
14	Strand level management					
15	License (included in enterprise license)		$ 0	$ 0	$ 0	$ 0
16	**Integrations**					
17	Beehive API - Deployment	$ 2,492				
18	Beehive API - Maintenance		$ 0	$ 0	$ 0	$ 0
19	SCADA - Deployment	$ 4,984				
20	SCADA - Maintenance		$ 1,187	$ 1,187	$ 1,187	$ 1,187
21	OnBase - Deployment	$ 2,492				
22	OnBase - Maintenance		$ 0	$ 0	$ 0	$ 0
23	ESRI - Deployment	$ 7,476				
24	ESRI - Maintenance		$ 1,187	$ 1,187	$ 1,187	$ 1,187
25	Solar Winds - Deployment	$ 3,738				
26	Solar Winds - Maintenance		$ 623	$ 623	$ 623	$ 623
27	Granite XP - Deployment	$ -				
28	Granite XP - Maintenance		$ 0	$ 0	$ 0	$ 0
29	Gasboy - Deployment	$ 2,492				
30	Gasboy - Maintenance		$ 623	$ 623	$ 623	$ 623
31	JD Edwards - Integration 1	$ 9,968				
32	JD Edwards - Integration 2	$ 5,482				
33	JD Edwards - Integration 3	$ 2,243				
34	JD Edwards - Maintenance		$ 2,492	$ 2,492	$ 2,492	$ 2,492
	Optional System Totals	$ 92,952	$ 14,594	$ 14,594	$ 14,594	$ 14,594
	Grand Total	$ 833,952	$ 168,594	$ 168,594	$ 168,594	$ 168,594

Notes:

8	AVL costs do not include vehicle hardware or data communication costs
10	AVL warehouse maintenance includes cloud based server(s), and up to 10g of database storage If data needs exceed 10g, additional costs may incure Note that these annual costs are high due to the assumption of the need to have cloud infrastructure completely separate from Beehive core cloud infrastructure. This duplciation might be mitigated through further discussion of the specific expectations of traffic, security, and access
12	AVL user interface tools become part of the associated module, and therefore have no separate maintenance cost
16	All integration efforts are estimated based on current knowledge. Specific elements may change costs.
15	Any UI elements developed for Conduit/Fiber become part of that module and are therefore covered under enterprise license. No separate maintenance required.
17	All third party integrations assume integration with the Beehive API. Deployment costs cover the development of the API "shim" required to interface. If the 3rd party vendor's API can be configured to be directly compatible these costs may reduce or be eliminated
31	It is assumed that the first JD Edwards integration element will take substantially longer, both due to the technology configurations, and the inter-departmental and inter-vendor permissions, agreements, documentation. Further integrations should become progressivly easier.

SPECIFICATIONS
ENTERPRISE WIDE ASSET MANAGEMENT SOLUTION

1. **Introduction and Supplemental Instructions**

1.1 The City of Lincoln, intends to retain a technology firm who will work as a partner with the Lincoln Public Works & Utilities Department ("PWU") to assist in innovation within the PWU and Lincoln Parks & Recreation Department (PRD) departments.

1.2 The City of Lincoln is soliciting competitive proposals from qualified firms ("Vendor") for an Enterprise Wide Asset Management Solution ("AMS"), deployment services, and post-deployment support.

1.3 System will also cover AMS needs of the PRD.

1.4 The system requirements will be outlined hereafter and the services required will include, but not be limited to, consultation, data conversion, customization, licensing, training, integrations, and software maintenance.

1.5 The system will be used to provide service to all PWU and PRD staff, and allow for input of related issues from the public

1.6 Proposals must be submitted via a written response AND an electronic E-bid response to the City of Lincoln Purchasing Office located at 440 S. 8th Street, Lincoln, NE 68508 no later than 12:00 Noon on Monday, August 31, 2015.

1.6.1 No exceptions to this deadline will be given.

1.6.2 Vendors shall provide eight (8) hard copies of the written proposal in an envelope clearly marked on the exterior "Asset Management System" to:

Bob Walla
City of Lincoln Purchasing
440 S. 8th Street, Suite 200
Lincoln, NE 68508

1.6.3 The Consultant will place the pricing information in a separate envelope from the rest of the proposal and mark the envelope, "Asset Management System - Price Information".

1.6.4 The Consultant will send 4 USB drives containing their full proposal, less the pricing information, with the written proposal and four (4) USB drives with only the pricing information.

1.6.4.1 Vendor shall clearly mark the USB drives as Proposal and Pricing.

1.7 Proposers must also complete and submit the electronic portion (Attributes and Line Item sections) of this proposal on the E-bid system.

1.7.1 Electronic submittal must be submitted before the closing date and time of this RFP.

1.7.2 Failure to submit a written and electronic response will result in the rejection of the proposal.

1.7.2.1 All inquiries regarding these specifications shall be directed to Bob Walla, Assistant Purchasing Agent, at (402) 441-7410 or rwalla@lincoln.ne.gov.

1.7.2.2 These inquiries and/or responses shall be distributed to prospective Vendors electronically as addenda.

1.7.3 No direct contact is allowed between Vendor and other City staff throughout the proposal submittal process.

1.7.3.1 Failure to comply with this directive may result in Vendors proposal being rejected.

1.7.3.2 All inquiries must be submitted no later than eight (8) days prior to the close of the RFP.

1.8 Proposals must remain firm for 120 days from the proposal close date.

1.8.1 The City of Lincoln reserves the right to refuse any or all proposals and to waive technicalities in order to accept proposals that may be in the best interest of the City of Lincoln, at its sole discretion.

1.9 The City of Lincoln will short-list a minimum of two (2) Vendors for interviews.

1.9.1 The City of Lincoln will contact those short-listed Vendors to schedule interviews.

1.9.1.1 Interviews are anticipated to be conducted the week of September 7, 2015 at City of Lincoln - Purchasing Office, 440 So. 8th Street.

1.9.2 Interviews will include a formal presentation and a question and answer session.

1.9.3 The City of Lincoln will contact the selected Vendor by phone or email after all the interviews have been completed and the City of Lincoln has sufficient time to discuss and rank the Vendors.

1.10 The selected Vendor will meet with the City of Lincoln to develop a detailed work plan.

1.10.1 The work plan consists of a detailed scope of services along with a staffing plan.

1.11 If the City is unable to arrive at a mutual agreement with the top ranked Vendor, the city retains the sole right to move on to negotiations with the second (then third, etc.) ranked Vendor.

2. General Information

2.1 The City of Lincoln is approximately 91 square mile with a population of 278,996.

2.2 The PWU consists of over 560 employees.

2.3 The PRD consists of 260 full time and seasonal employees.

2.4 Computing environment currently includes:
- 2.4.1 Desktop PCs utilizing Microsoft Windows 7 SP 1 or above.
- 2.4.2 Mobile devices utilizing iOS.
- 2.4.3 Mobile devices utilizing Android.
- 2.4.4 Servers utilizing Windows 2008 and 2012.
- 2.4.5 TCP/IP network utilizing Active Directory for authentication.
- 2.4.6 MS SQL Server 2008 or above.

3. Expectations

3.1 The City is seeking a commitment from a qualified vendor to deploy an Enterprise Wide Asset Management Solution.

3.2 We expect this to be a highly collaborative process and to rely heavily on direct input and consultation with the vendor, their processes, and techniques.

3.3 This Request for Proposals specifically avoids specific feature requirements to encourage each Vendor to recommend and describe their solution in their terms.

3.4 It is expected that the proposal will reflect the expectations below:

- 3.4.1 Broad Use
  - 3.4.1.1 This solution is expected to be utilized in multiple functional groups within PWU and PRD and this proposal should reflect the specific use for each functional group.
- 3.4.2 Presence
  - 3.4.2.1 The City is looking for a turnkey solution inclusive of consultation, project management, software solutions, training, and innovation.
  - 3.4.2.2 A frequent onsite presence is required, including:
  - 3.4.2.3 Consultation with each functional group to be conducted on-site.
  - 3.4.2.4 Onsite attendance at project planning and status meetings.
  - 3.4.2.5 Onsite training for each functional group.
  - 3.4.2.6 Proposal should address the specific deployment of each functional group listed below.
- 3.4.3 Comprehensive
  - 3.4.3.1 Proposals need to include all required elements to utilize the solution.
  - 3.4.3.2 While some elements may ultimately be procured through other means, the proposal should clearly indicate all elements required for the solution. This may include, but is not limited to:
    - 3.4.3.2.1 Any recommended servers, associated operating systems, and installation.
    - 3.4.3.2.2 Other hardware.
    - 3.4.3.2.3 Any third party licensing required to utilize the features outlined in the proposal.
    - 3.4.3.2.4 Recommended staffing and qualifications for support of the solution.

4. Primary Functional Groups

4.1 The following represent the functional groups to be covered under the new solutions proposed.

Functional Group	Current solution
1. Water Distribution	Infor/Hansen 8.3.0, ESRI ArcGIS 10.2.2, Marshall GeoKNX
2. Wastewater Collection	CartêGraph 8.3b, ESRI GIS 10.1
3. Watershed Management	ESRI GIS 10.2.2
4. Wastewater Treatment Plant	Infor/MP2 6.1
5. Water Production & Treatment	Infor/Hansen 8.3.0, ESRI GIS 10.2.2, Marshall GeoKNX
6. Fleet	In House
7. Solid Waste	MS Access, Infor/MP2 6.1, Excel, ESRI GIS 10.2.2
8. Facilities	Infor/MP2 6.1
9. Pavement	StreetSaver
10. Street Operations	Beehive Industries, ESRI GIS 10.2.2
11. Conduit/Fiber	Beehive Industries, ESRI GIS 10.2.2
12. Signals	Beehive Industries, ESRI GIS 10.2.2
13. Sidewalk	Beehive Industries, ESRI GIS 10.2.2
14. Signs	Beehive Industries, ESRI GIS 10.2.2
15. Public Access/E311	In House Lincoln.ne.gov keyword "Action"
16. PRD – Trees	ESRI GIS Server 10.1
17. PRD– Land & Easements	ESRI GIS Server10.1
18. PRD – Facilities & amenities	MS Access, ESRI GIS Server10.1
PRD – Trails	Access, In House
20. Parks & Recreation – Park Equipment	MS Access, ESRI GIS Server 10.1
21. PRD –Public Art	MS Access, ESRI GIS Server 10.1
21. PRD –Tributes & Memorials	MS Access, ESRI GIS Server 10.1

5. Proposal Requirements

5.1 Vendor Information

- 5.1.1 The name, address, and telephone number of your company.
- 5.1.2 Describe the type and ownership of the company.
- 5.1.3 Profile of the location of all offices, staffing and services provided including senior officials' names, addresses, and telephone numbers
- 5.1.4 Identification of the individuals and/or vendors comprising the proposed team for this project, their qualifications, and what specific role each will take in completing the work.
- 5.1.5 City of Lincoln shall retain the right to approve any project team personnel changes.

5.2 System Requirements

- 5.2.1 List all desktop system requirements for all proposed solutions, including any 3rd party applications.
- 5.2.2 List all mobile system requirements for all proposed solutions, including any 3rd party applications.
- 5.2.3 Existence and costs for all desktop and mobile hardware and operating systems are the responsibility of PWU/PRD and not of the vendor.
- 5.2.4 Server requirements
  - 5.2.4.1 Describe recommended configurations and specifications for all servers for all proposed solutions.
  - 5.2.4.2 List specific server manufacturer/models recommended.
  - 5.2.4.3 Virtual server environment requirements (Optional).
  - 5.2.4.4 Hosted server environment (Optional).
- 5.2.5 Third-party software
  - 5.2.5.1 List all third party software required to support proposed functions.

5.3 Functional Groups

- 5.3.1 For each of the functional groups listed in section 4:
  - 5.3.1.1 List all asset class services provided.
  - 5.3.1.2 Describe any group specific consulting included.
  - 5.3.1.3 Describe group specific features included.
  - 5.3.1.4 Describe any expected group specific meetings or workshops included.

5.4 Features

- 5.4.1 Describe your proposed asset management solution that covers all functional groups above, for each of the following:

5.4.2 Architecture.
- 5.4.2.1 Database.
- 5.4.2.2 Server.
- 5.4.2.3 Network connected architecture.
  - 5.4.2.3.1 Mobile- cellular connection.
- 5.4.2.4 Disconnected architecture.
  - 5.4.2.4.1 Locally cached - assertive syncing.
- 5.4.2.5 Backup procedures.

5.4.3 Administration by department - PWU and PRD.
- 5.4.3.1 User Authentication.
  - 5.4.3.1.1 Support for Windows Active Directory Services (WAD).
  - 5.4.3.1.2 Support for Azure Active Directory Services (WAAD)
- 5.4.3.2 Security / Permissions.
- 5.4.3.3 Client facing Configuration - Tools for configuration and administration of solution.

5.4.4 User Interface for each functional group listed in Section 4.
- 5.4.4.1 Menu / General software navigation.
- 5.4.4.2 Asset navigation.
- 5.4.4.3 Display at multiple resolutions.

5.4.5 Assets for each functional group listed in Section 4.
- 5.4.5.1 Asset identification / naming.
- 5.4.5.2 Asset attributes.
- 5.4.5.3 Asset relationships.
- 5.4.5.4 Asset lifecycle.

5.4.6 Asset specific functions for each functional group listed in Section 4.
- 5.4.6.1 Example Functional Group = Conduit/Fiber.
- 5.4.6.2 Fiber splice documentation.
- 5.4.6.3 Open fiber tracing.
- 5.4.6.4 Conduit availability based on assets and fill.

5.4.7 Document management for each functional group listed in Section 4.
- 5.4.7.1 Photo and video integration.
- 5.4.7.2 Other file based documentation / attachments.
- 5.4.7.3 Integration with other systems.
  - 5.4.7.3.1. Hyland OnBase.
- 5.4.7.4 Accessibility to other systems.
- 5.4.7.5 Backup method.

5.4.8 Map interfaces for each functional group listed in Section 4.
- 5.4.8.1 ESRI integration.
- 5.4.8.2 Map based asset navigation.
- 5.4.8.3 Map based analytics.

5.4.9 Work (Workforce and Workflow) Management by department - PWU and PRD.
- 5.4.9.1 Service requests, work orders, activities.
- 5.4.9.2 Management of non-asset based issues.
- 5.4.9.3 Task assignment.
- 5.4.9.4 Preventative maintenance.
- 5.4.9.5 Reactive maintenance.
- 5.4.9.6 Inspections.

5.4.10 Contractor Management by department - PWU and PRD.
- 5.4.10.1 Track contractors and capabilities.
- 5.4.10.2 Track contractor contacts/employees.
- 5.4.10.3 Assignment of contractors to tasks.

5.4.11 Automatic Vehicle Location (Optional).
- 5.4.11.1 Show location in real time.
- 5.4.11.2 Query and display a "breadcrumb trail".
- 5.4.11.3 Display nearest unit.
  - 5.4.11.3.1 Ability to flag units as unavailable.
- 5.4.11.4 Conduct routing\logistical analysis.

5.4.12 Cost Management by department - PWU and PRD.
- 5.4.12.1 Time tracking - for all work order/service based efforts.
- 5.4.12.2 Time tracking - for all non-service and administrative time.
  - 5.4.12.2.1 Bi-weekly reporting for entry into Tesseract "InTears" payroll system (Optional).
  - 5.4.12.2.2 Ability to track overtime.
  - 5.4.12.2.3 Ability to track compensatory time .
- 5.4.12.3 Part and Material tracking.
- 5.4.12.4 Stock Management - inventory, reorder, warehousing.

5.4.13 Reporting by department - PWU and PRD.
- 5.4.13.1 Included reporting.
- 5.4.13.2 Pro-active communication of staff assignments.
- 5.4.13.3 Warnings based on thresholds - i.e. overtime.
- 5.4.13.4 Scheduled reminders\prompts.

5.4.14 Analytics for each functional group listed in Section 4.
- 5.4.14.1 Ad-hoc query capabilities including staff skill level required to access information.
- 5.4.14.2 Self-service reporting capabilities including staff skill level required to access reports.
- 5.4.14.3 Risk analysis.
- 5.4.14.4 Predictive analytics.
- 5.4.14.5 User customizable dashboard.
- 5.4.14.6 Standard capabilities.
- 5.4.14.7 LogiXML enterprise dashboard software (Optional).

5.4.15 Field use for each functional group listed in Section 4.
- 5.4.15.1 Describe abilities to utilize the solution in the field, including field inventorying and editing of asset attributes.
- 5.4.15.2 Disconnected options.
- 5.4.15.3 Mobile options.

5.4.16 E311 - Public reporting of issues and/or public access to information by department - PWU and PRD.
- 5.4.16.1 Describe methods of public access.
- 5.4.16.2 Describe workflow\ response process.
- 5.4.16.3 Describe the security and verification measures used.

5.4.17 Open data access
- 5.4.17.1 Describe methods for ad-hoc data access to all solution data

5.4.18 Application Programming Interface (API).
- 5.4.18.1 Describe available and documented methods for third party integrations.

5.4.19 Integrations for each functional group listed in Section 4 including but not limited to:
- 5.4.19.1 SCADA systems
  - 5.4.19.1.1 Wastewater and Solid Waste - ControlLogix Control Hardware, Genesis Iconics HMI and ReportWorx software.
  - 5.4.19.1.2 Water - Wonderware, Hach WIMS.
- 5.4.19.2 OnBase Version 14.X PWU utilizes OnBase for centralized document management. - Describe proposed integration.
- 5.4.19.3 ESRI GIS
  - 5.4.19.3.1 PWU and PRD utilize ESRI products for general GIS functions. - Describe proposed integration with enterprise geodatabases, including bi-directional synchronization.
- 5.4.19.4 SolarWinds
  - 5.4.19.4.1 PWU will be utilizing SolarWinds for real-time monitoring and analysis of fiber networks and servers. - Describe proposed integration.
- 5.4.19.5 Sewer video systems
  - 5.4.19.5.1 PWU will be standardizing on the Granite XP sewer inspection software package, which will utilize customized PACP standards. PWU currently has Aries and Cues video equipment. - Describe proposed integration.
- 5.4.19.6 Gasboy
  - 5.4.19.6.1 PWU utilizes Gasboy PC/CFN 3.1.0.7 Fuel Management Systems - Describe proposed integration.

5.4.19.7 JD Edwards World 9.3

5.4.19.7.1 PWU and the City of Lincoln utilize JD Edwards World 9.3 for general finance, including payroll and fund accounting. PWU expects to transfer certain data between systems, including payroll hours, staff cost rates, etc. - Describe proposed integration.

5.5 Partners

5.5.1 List any partners or third-party vendors with qualifications involved in all proposed solutions. Include any sub-contractors that are to be used on this project. Indicate the tasks to be completed by these sub-contractors.

5.6 Training

5.6.1 The City of Lincoln will provide on-site facilities for on-site training at PWU and PRD facilities. Facilities are available for up to 50 users in a lecture format, or 12 users with computers available.

5.6.2 Training shall be conducted on-site in facilities provided by PWU or PRD

5.6.3 Describe user training that will prepare users, supervisors and other personnel properly on the day-to-day use of the application including reporting functions

5.6.4 Describe training that will prepare City staff in the administration, management and planned and unplanned maintenance.

5.6.5 The City may choose to capture video of each training session for later use

5.7 Post Deployment Support

5.7.1 It is assumed that other elements of the proposal will describe all in-deployment elements. This section of the proposal will describe post-deployment processes.

5.7.1.1 Training.

5.7.1.2 Describe nature and availability of post-deployment training.

5.7.1.3 Include associated costs in the Cost Proposal described below.

5.7.2 Technical Support

5.7.2.1 Provide a comprehensive Service Level Agreement (SLA)

5.7.2.1.1 Describe support methods and hours of operation, including time to resolution.

5.7.2.1.2 Describe support escalation methods.

5.7.3 Software updates

5.7.3.1 Describe the nature and frequency of software version updates.

5.7.3.2 Include associated costs in the Cost Proposal described below.

5.7.4 Hardware

5.7.4.1 Describe any maintenance, repair, or replacement required by the vendor in support of any suppled hardware, including servers.

5.8 Project Management

5.8.1 As this is a broad and comprehensive solution, consistent and competent project management is a key factor for success.

5.8.2 The vendor is responsible for providing management of their own resources in order to meet the project goals and time schedule.

5.8.3 Proposal shall describe, in detail the intended project management methods to be utilized.

5.8.4 Proposal shall include:

5.8.4.1 Description, in detail, of the project management methods intended.

5.8.4.2 Project communication plan.

5.8.4.3 Recommendation of an optimal project schedule, with resources for the functional groups identified.

5.8.4.4 Recommended PWU and PRD staff roles throughout the deployment phase of the project and estimates of their needed commitments throughout the process.

5.8.4.1 Estimates can be communicated as FTEs or as number of hours for each role.

5.8.4.5 Recommended post-deployment staffing roles and estimates of needed commitments.

5.8.4.5.1 During deployment.

5.8.4.5.2 Post deployment.

5.8.5 The two prior items should consider roles in project management, networking, database administration, security, server maintenance, file management, solution configuration, training, GIS, Administration, or any other functions the vendor deems appropriate.

5.9. References

5.9 References consisting of three primary contacts of previous clients (to include organization name, contact person, title, address, email and telephone number) with elements similar to this proposal for which your company was engaged within the past five (5) years.

6. <u>Cost and Implementation Proposal - Submitted Separately From Written Proposal</u>

6.1 The total cost of implementation of an Asset Management Solution will be an evaluation factor in the award of the RFP.

6.2 Vendor shall provide pricing according to the information provided in this section and any other section where a price is being requested. Vendor shall not deviate pricing from the section below.

6.2.1 If additional pricing for components or services are required which are not included below, Vendor must list this pricing on a separate sheet of company letterhead enclosed in the same envelope.

6.3 Pricing shall be submitted to Purchasing in writing on company letterhead in an envelope titled, "Asset Management System - Pricing", separate from the other written information.

6.4 The City reserves the right to award an entire proposal for all services or to pick and choose services which meet the needs of the City and fall within the budget for the project.

6.5 The City will evaluate costs over a five year period, inclusive of all required elements for that period.

6.6 Assume that with the exception of basic networking and per-user hardware (desktop computers, tablets, mobile phones), that all other elements for deploying the proposed solution are to be described in this proposal, and the associated costs listed below.

6.7 While some elements may ultimately be procured through other means, or may already exist, the proposal should clearly indicate costs for all recommended elements required for the solution.

6.8 Include costs as a separate PDF and .XLSX file included in deliverables. Format shall be a grid listing items and cost for each of the 12 month periods indicated. Example:

Item	Year 1	Year 2	Year 3	Year 4	Year 5
Functional Group 1					
Item 1	$	$	$	$	$
Item 2	$	$	$	$	$
Item 3	$	$	$	$	$
Functional Group 2					
Item 1	$	$	$	$	$
Item 2	$	$	$	$	$
Total	**$**	**$**	**$**	**$**	**$**

6.9 Cost grid should at least provide individual line items for:

- 6.9.1 Deployment efforts inclusive of:
  - 6.9.1.1 Consultation.
  - 6.9.1.2 Data conversion.
  - 6.9.1.3 Training.
  - 6.9.1.4 Installation, including all systems including required servers or recommended third party solutions.
  - 6.9.1.5 Configuration, including all systems including required servers or recommended third party solutions.
  - 6.9.1.6 Travel / lodging / etc.
  - 6.9.1.7 Any other efforts required for delivery of the proposed solution.
- 6.9.2 Licensing.
- 6.9.3 Technical Support, including training.
- 6.9.4 Software updates.
- 6.9.5 Server Hardware.
- 6.9.6 Third partly licensing - List individually.

6.10 If any element of cost, including third party elements is based on the number of users, computers, features, or any other metric, identify the per-metric costs for all elements.

6.11 Vendors should assume a minimum of 100 users across all functional groups.

6.11.1 All prices, quotes, or proposals are to remain firm for at least 120 days after the closing date of proposals.

7. Selection Criteria

7.1 Award, if made, will be to the responsive, responsible company submitting the proposal which is deemed by the City, in its sole discretion, to be the most advantageous to the City.

7.2 Function, usability, price, method of delivery, and other factors will be considered.

7.3 Selected vendor will negotiate with the City to determine contract terms and acceptance criteria.

7.4 Understanding of the project and responsiveness to the RFP.

7.5 Cost and ease of converting existing data.

7.6 Cost and ease of converting existing workflows.

7.7 Total Cost of Ownership (TCO).

7.8 Ease of use.

7.9 Consultation and training plan.

7.10 Note: Total Cost of Ownership is considered to include all costs accrued over the anticipated contract period, which is currently assumed to be five years.

7.11 These costs will include those listed in this proposal, anticipated staff commitments, and needed enhancements to current systems.

8. Tentative Project Schedule

Activity	Date
RFP Issued	8/07/2015
Proposals due	8/31/2015
Selection of finalists	9/04/2015
Finalist Interviews	9/07/2015, week of
Negotiations	9/14/2015, week of
Award Notification	9/21/2015, week of
Final Contract Execution	10/16/2015, week of
Commencement	11/09/2015

ADDENDUM #1
Issue Date: 04/10/2015
SPECIFICATION NO.15-189
FOR
ENTERPRISE ASSET MANAGEMENT SOLUTION

Addenda are instruments issued by the Purchasing Department prior to the date for receipt of offers which will modify or interpret the specification document by addition, deletion, clarification or correction. Please acknowledge receipt of this addendum in the space provided in the Attribute Section.

Be advised of the following changes to the specification and bidding documents:

1. **Our proposed costs will be based on the number of "active" assets being tracked in our software. It supports unlimited users. Can you confirm the total portfolio of vehicle (rolling stock) and heavy and small equipment assets that PWU & PRD would like to actively track?**

There are less than 600 pieces of equipment in the asset management program for PW Fleet Management. This includes heavy equipment and light equipment. PW Fleet Management does not service or maintain cars and pickups.

2. **How many Maintenance Managers will be users?**

This is an Enterprise Asset Management System as such we are not quantifying or limiting the various types of users or the number of inputs.

3. **How many will be requesting Work Orders?**

The RFP states the user count should be calculated at 100

4. **Is there a centralized GIS department that manages enterprise geodatabases for each functional group in Section 4.1, or is each group responsible for its own?**

Yes there is a centralized GIS Team for all of PW.

5. **Are there some groups that are not currently utilizing enterprise (SDE) geodatabases, and if so, can these groups please be listed?**

No all GIS data is maintained and edited in enterprise level SDE geodatabases.

6. **Could you please provide more detailed information about your fleet---in particular, number of vehicles and asset types?**

Attached is an inventory from Fleet for the vendor's use it does not include small equipment such as line trimmers, chainsaws. It should be used as a representative number only.

7. **Can you please clarify the SCADA system integration requirement? Under sections 5.4.19.1.1 and 5.4.19.1.2, the RFP lists several SCADA monitoring systems, but unlike the other integration requirements, it does not seem to require us to describe our proposed integration. Was this an oversight, or do we simply need to acknowledge that we will work with the City to define a method of getting that data into the system?**

Vendor shall acknowledge that they will work with the City to define a method of getting that data into and out of the asset management system.

8. **Please provide a breakdown of users by functional area. Of the number of users listed, how many of these will require mobile access?**
Assume 20-50 users per functional area. Assume all users will require mobile access.

9. **How will this project be funded (i.e. funded by individual divisions, capital funding, other)?**
Funding sources will be dependent on price submitted.

10. **How many active rolling stock vehicles and pieces of equipment units (assets) are you wishing to track?**
See Attachment titled "15-189 Fleet Inventory", which has been added to the Bid Attachment section.

All other terms, conditions and requirements of the request remain the same as originally indicated in the document or as modified on previous addenda.

Robert L Walla
Assistant Purchasing Agent

ADDENDUM #3
Issue Date: 08/26/2015
Bid No. 15-189
FOR
ENTERPRISE ASSET MANAGEMENT SOLUTION

Addenda are instruments issued by the Purchasing Department prior to the date for receipt of offers which will modify or interpret the specification document by addition, deletion, clarification or correction. Please acknowledge receipt of this addendum in the space provided in the Attribute Section.

Be advised of the following changes to the specification and bidding documents:

1.) Please clarify your pricing submission request:

6.6.2 says "vendor shall not deviate pricing from the schedule below.

6.6.8 shows an example of a grid or spreadsheet format. Is it expected that the grid we submit list all the individual cost items in 6.9 and for each of the 21 functional groups identified? As an enterprise asset management system many of the costs will be inclusive of all groups. For example it may be difficult to break down licensing for each of the 21 groups without exact number of users per group. Or, as an example, training may be combined between all of the utilities elements so breaking down training by functional group could be difficult. Please provide further instruction if possible.

AND

I have the vehicle list but it is not divided into functional groups. Section 6.8 requests a grid listing and the example has it broken down by functional group and then by item.

How do you want the estimate spreadsheet broken down? Is there a different Fleet list with functional groups on it?

Answer: Function group = Fleet
Item 1 = Cost of Consulting
Item 2 = Cost of Data Conversion
... and so on.

The grid model is to report the total cost of items listed in section 6.9. The vendor will provide the costs of their solution.

If you cannot break out every portion of 6.9 as required you must provide the cost for the combined Items. IE - Item 1 and Item 6 - $400,000.00. All Items must be accounted for in the total cost and clearly indicated as such in the proposal.

2.) The RFP documents do not specifically call out the need for a bid bond. Please advise if a bid bond is required.

Answer: A Bid Bond is not required for this proposal.

Addendum Issued this day by:
Robert Walla
Assistant Purchasing Agent

CITY OF LINCOLN
FLEET SERVICES
LIST OF UNITS BY MULTIPLE PARAMETERS

UNIT	YEAR	MAKE	MODEL		DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
11028	2001	CUSHM	898657		TURF UTILITY VEHICLE	$13,301.00	A	898657-318824	1600	028	1,802	1,826
11031	2003	CUSHM	898658		TURF UTILITY VEHICLE	$12,633.00	A	LM17746	1600	030	723	731
11032	2003	CUSHM	898658		TURF UTILITY VEHICLE	$12,633.00	A	LM18223	1600	029	708	708
11033	2008	TORO	WORKMAN MDX		TURF UTILITY VEHICLE	$11,059.20	A	07273-290000162	1600	030	3,146	3,135
11034	2008	TORO	WORKMAN 3200		TURF UTILITY VEHICLE	$18,529.40	A	07361-280000683	1600	027	618	627
11035	2008	TORO	WORKMAN 3200 W/CA		TURF UTILITY VEHICLE	$23,352.40	A	07361-280000658	1600	031	1,432	1,443
11036	2008	TORO	WORKMAN 3200		TURF UTILITY VEHICLE	$18,223.01	A	07361-280000601	1600	031	684	707
11037	2008	TORO	WORKMAN 3200		TURF UTILITY VEHICLE	$18,233.01	A	07361-280000602	1600	031	1,298	1,321
11038	2010	TORO	WORKMAN HDX W/CAB		TURF UTILITY VEHICLE	$26,214.00	A	07367-310000359	1600	028	1,307	1,351
11039	2012	TORO	WORKMAN HDX		TURF UTILITY VEHICLE	$22,127.00	A	07367-312000181	1600	027	234	239
11040	2012	TORO	WORKMAN HDX		TURF UTILITY VEHICLE	$22,127.00	A	07367-312001297	1600	031	656	656
11041	2012	KUBOTA	RTV1100CWXL-H		TURF UTILITY VEHICLE	$29,109.77	A	35277	1600	209	1,576	1,536
11042	2012	KUBOTA	RTV1100CWXL-H		TURF UTILITY VEHICLE	$29,109.77	A	37318	1600	209	1,641	1,591
13 TOTAL UNITS FOR CLASS 1600 UTILITY VEHICLES (TURF)												
34001	1991	FORD	STEPVAN		MOBILE CHLORINE VAN	$32,114.00	A	3FCLF59M6MJA00443	2056	140	17,724	17,724
34006	2003	FORD	E496 158 SD		SEWER T.V. VAN	$92,778.15	A	1FCLE49S53HB83699	2056	132	64,444	64,820
34008	2008	FORD	E450 VAN		SEWER T.V. VAN	$115,295.00	A	1FDXE45S28DA24687	2056	132	51,177	51,412
3 TOTAL UNITS FOR CLASS 2056 TV/CHLORINE VANS												
34005	2002	FORD	F550		MOBILE HASMAT VAN	$95,792.00	A	1FDAF57F82EC96638	2058	233	8,551	8,581
34009	2012	THOMAS	110YN		BOOKMOBILE	$302,393.00	A	1T7YL2F24C1150113	2058	048	31,507	31,544
2 TOTAL UNITS FOR CLASS 2058 SPECIALTY VANS												
21040	1998	CHEVY	CC31003		UTILITY TRUCK	$29,899.60	A	1GBHC34F3WF061086	2100	111	77,845	78,348
21041	1998	CHEVY	CC31003		UTILITY TRUCK	$32,269.60	T	1GBHC34F0WF061949	2100	111	136,654	137,567
21042	1998	CHEVY	CC31003		UTILITY TRUCK	$27,814.60	A	1GBHC34F1WF062382	2100	111	76,154	76,314
21047	2001	FORD	F350		UTILITY TRUCK	$32,707.00	A	1FDWF36F71EB67509	2100	017	104,667	104,954
21048	2001	FORD	F350		UTILITY TRUCK	$43,283.00	A	1FDWF36F51EB67508	2100	EM1	82,846	83,244
21050	2001	FORD	F350	S	UTILITY TRUCK W/CRANE	$51,210.00	A	1FDWF36F31EB89703	2100	111	73,438	73,718
21051	2002	FORD	F350	S	UTILITY TRUCK W/CRANE	$57,114.00	T	1FDWF36F12EC08721	2100	111	124,564	125,160
21053	2003	FORD	F350	S	WELDING TRUCK	$40,285.00	A	1FDWF36S93EB98681	2100	024	94,603	95,284
21054	2003	FORD	F350		UTILITY TRUCK	$38,625.00	A	1FDWF36P73EC74751	2100	111	113,342	113,690
21055	2003	FORD	F350		UTILITY TRUCK	$37,589.00	A	1FDWX36P04EC48670	2100	024	65,999	66,327
21056	2004	FORD	F350		UTILITY TRUCK	$41,023.00	A	1FDWX36P44EC19978	2100	023	61,282	61,928
21057	2004	FORD	F350		DUMP TRUCK 2 YD.	$38,089.00	A	1FDWX36P24EC65552	2100	027	40,708	40,892
21058	2006	CHEVY	CHEVY K36003		UTILITY TRUCK	$32,707.00	A	1GBJK34D86E202887	2100	160	44,965	44,965
21060	2010	FORD	F350	PB	PLATFORM TRUCK	$48,800.00	A	1FDWX3GR2AEA28331	2100	140	32,659	33,310
22009	2003	FORD	F450	S	UTILITY TRUCK W/CRANE	$62,780.00	A	1FDXF46P83EC13547	2100	133	81,405	81,724
22010	2003	FORD	F550		DUMP TRUCK 2 YD.	$44,883.50	A	1FDAF56P83ED59944	2100	037	78,511	78,511
22014	2005	FORD	F450		UTILITY TRUCK	$48,070.00	A	1FDXF46P05EC70280	2100	017	90,211	90,625
22017	2007	FORD	F450		DUMP TRUCK 2 YD.	$49,235.00	A	1FDXF46PX7EA03053	2100	016	76,180	76,868
22019	2007	FORD	F450	S	UTILITY TRUCK W/CRANE	$70,580.00	A	1FDXW46P27EA14225	2100	140	81,127	81,296
22020	2008	FORD	F450		BARRICADE TRUCK	$55,425.21	A	1FDXF46RX8EA36105	2100	017	111,830	112,380
22024	2008	FORD	F450		DUMP TRUCK 2 YD.	$49,517.33	A	1FDXW46R58EE41076	2100	037	54,025	54,279
22025	2008	FORD	F450	S	UTILITY TRUCK W/CRANE	$58,919.33	A	1FDXF46R38EE41075	2100	016	72,280	72,920
22026	2009	FORD	F550	S	UTILITY TRUCK W/CRANE	$93,084.00	A	1FDAW56R49EA60963	2100	140	46,091	46,605

UNIT	YEAR	MAKE	MODEL		DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
22027	2009	DODGE	RAM 4500		UTILITY TRUCK	$46,403.00	A	3D6WC66L29G543598	2100	023	14,040	14,040
22028	2009	DODGE	RAM 4500		UTILITY TRUCK	$47,374.00	A	3D6WC66L49G543599	2100	024	76,020	76,903
22029	2009	DODGE	RAM 4500	S	UTILITY TRUCK W/CRANE	$63,922.00	A	3D6WC66LX9G543266	2100	131	15,176	15,176
22030	2009	DODGE	RAM 4500 SB/C		UTILITY TRUCK W/CRANE	$58,696.00	A	3D6WC66L49G544381	2100	132	37,954	37,660
22031	2012	FORD	F550 SB/C		UTILITY TRUCK W/CRANE	$101,631.00	A	1FD0W5GTXCEA59314	2100	140	41,709	41,496
22032	2012	FORD	F450		UTILITY TRUCK W/CRANE	$64,994.39	A	1FDOX4GY2CEA83917	2100	144	49,545	50,028
22033	2012	FORD	F450		UTILITY TRUCK W/CRANE	$65,426.00	A	1FDOX4GY1CEB79487	2100	016	18,295	17,852
22034	2012	FORD	F450		UTILITY TRUCK	$51,663.00	A	1FDOX4GYXCEB79486	2100	019	26,247	26,087
22035	2012	FORD	F450		UTILITY TRUCK W/CRANE	$70,770.00	A	1FDOX4GY3CEB79488	2100	145	7,058	6,980
22036	2012	FORD	F450		UTILITY TRUCK W/CRANE	$71,733.00	A	1FDUF4GY2CEB79485	2100	132	14,889	14,889
22038	2013	FORD	F450		DUMP TRUCK 2 YD.	$48,103.00	A	1FDUF4GY8DEA35148	2100	027	9,037	8,674
22039	2013	FORD	F450		PLATFORM TRUCK	$53,076.40	A	1FDOX4GY1DEA35150	2100	140	12,618	12,618
22040	2015	FORD	F550 SB/C		UTILITY TRUCK W/CRANE	$106,570.45	A	1FD0W5GY2FEA58948	2100	140	7,969	7,796
22041	2015	FORD	F450		DUMP TRUCK 2 YD.	$48,413.00	A	1FDUF4GY5FED30288	2100	016	584	584
22042	2015	FORD	F450		UTILITY TRUCK W/CRANE	$85,942.00	A	1FDUF4GY3FED30287	2100	111	27	27
22043	2015	FORD	F450		UTILITY TRUCK	$58,943.00	A	1FDUF4GY1FED30286	2100	111	17	17
	39	TOTAL UNITS FOR CLASS 2100 CLASS 3-5 4X2 MIXED USE TRUCKS										
21059	2009	FORD	F350 4X4		UTILITY TRUCK	$44,686.00	A	1FDWF37R89EA52891	2200	160	25,521	26,001
22011	2004	FORD	F450 4X4	S	UTILITY TRUCK W/CRANE	$55,678.00	A	1FDXF47S34EC87401	2200	132	90,377	90,779
22012	2004	FORD	F450 4X4		DUMP TRUCK 2 YD.	$43,713.00	A	1FDXF47P94EC79153	2200	019	89,300	89,760
22015	2005	FORD	F450 4X4		DUMP TRUCK 2 YD.	$48,301.00	A	1FDXF47P35EC70241	2200	031	17,088	17,088
22016	2005	FORD	F450 4X4		DUMP TRUCK 2 YD.	$48,301.00	A	1FDXF47PX5EC70253	2200	017	69,730	70,003
22018	2007	FORD	F450 4X4		DUMP TRUCK 2 YD.	$48,635.00	A	1FDXF47PO7EA26193	2200	016	57,148	57,257
22021	2008	FORD	F450 4X4		DUMP TRUCK 2 YD.	$47,446.00	A	1FDXF47R98EC66555	2200	016	49,127	49,420
22022	2008	FORD	F450 4X4		DUMP TRUCK 2 YD.	$47,446.00	A	1FDXF47R08EC66556	2200	017	75,731	76,445
22023	2008	FORD	F450 4X4		DUMP TRUCK 2 YD.	$47,446.00	A	1FDXF47R28EC66557	2200	019	48,070	48,239
22037	2013	FORD	F450 4X4		DUMP TRUCK 2 YD.	$53,722.00	A	1FDUF4HY1DEA35149	2200	023	21,184	21,000
	10	TOTAL UNITS FOR CLASS 2200 CLASS 3-5 4X4 MIXED USE TRUCKS										
23035	1992	FORD	F700		DUMP TRUCK 4 YD	$31,404.00	A	1FDWK74P3NVA18292	2275	029	59,285	59,411
23036	1992	FORD	F700		DUMP TRUCK 4 YD	$31,590.92	A	1FDWK74P5NVA18293	2275	028	60,593	60,813
23037	1992	FORD	F700		DUMP TRUCK 4 YD	$31,590.92	A	1FDWK74P7NVA18294	2275	030	40,655	40,655
23038	1992	FORD	F700		DUMP TRUCK 4 YD	$31,590.92	A	1FDWK74P9NVA18295	2275	031	47,919	47,919
23039	1992	FORD	F700		PLATFORM TRUCK	$31,723.92	A	1FDWK74P1NVA18291	2275	031	45,697	45,697
	5	TOTAL UNITS FOR CLASS 2275 CLASS 6-7 4X2 MIXED USE TRUCKS										
24082	2001	STERL	L7500 4X2		DUMP TRUCK 5 YD.	$62,538.00	A	2FZAATAK11AJ95036	2280	019	79,857	80,131
24083	2001	STERL	L7500 4X2		DUMP TRUCK 5 YD.	$62,138.00	A	2FZAATAK31AJ95037	2280	019	75,347	75,450
24084	2001	STERL	L7500 4X2		DUMP TRUCK 5 YD.	$68,258.00	A	2FZAATAK51AJ95038	2280	016	58,772	58,772
24085	2001	STERL	M7500 4X2		CHIPPER TRUCK	$57,550.00	A	2FZABYAK51AJ43886	2280	037	98,305	98,789
24086	2003	STERL	M7500 4X2		DUMP TRUCK 5 YD.	$69,212.00	A	2FZABYAK33AL06392	2280	017	57,929	58,077
24087	2003	STERL	M7500 4X2		DUMP TRUCK 5 YD.	$69,212.00	A	2FZABYAK53AL06393	2280	016	73,088	73,179
24088	2005	FRLIN	M2106-V		DUMP TRUCK 5 YD.	$81,442.00	A	1FVAC3DC55HV32200	2280	016	69,065	69,155
24089	2005	FRLIN	M2106-V		DUMP TRUCK 5 YD.	$82,575.00	A	1FVAC3DC05HV32198	2280	017	56,320	56,745
24090	2005	FRLIN	M2106-V		DUMP TRUCK 5 YD.	$82,575.00	A	1FVAC3DC25HV32199	2280	017	60,305	60,704
24091	2007	IHC	7400 SBA 4X2		DUMP TRUCK 5 YD.	$90,617.00	A	1HTWCAARX7J401826	2280	017	33,444	33,359

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
24092	2007	IHC	7400 SBA 4X2	DUMP TRUCK 5 YD.	$90,617.00	A	1HTWCAAR17J401827	2280	016	58,168	58,515
24093	2008	IHC	7400 SBA 4X2	DUMP TRUCK 5 YD.	$101,102.50	A	1HTWCAAR68J637942	2280	017	51,015	51,172
24094	2008	IHC	7400 SBA 4X2	DUMP TRUCK 5 YD.	$101,102.00	A	1HTWCAAR88J637943	2280	019	61,209	61,294
24095	2013	IHC	4300 SBA 4X2	CHIPPER TRUCK	$96,895.53	A	3HAMMAAR3DL299528	2280	037	23,815	21,591
14 TOTAL UNITS FOR CLASS 2280 CLASS 8 4X2 MIXED USE TRUCKS											
25031	2000	IHC	4900 6X4	DUMP TRUCK 10 YD.	$71,533.00	T	1HTSHAAR7YH233779	2285	016	89,673	89,673
25035	2000	IHC	4900 6X4	DUMP TRUCK 10 YD.	$72,526.50	A	1HTSHAAR5YH233859	2285	132	58,885	59,036
25038	2001	STERL	LT7500 6X4	DUMP TRUCK 10 YD.	$75,445.29	A	2FZHATAK51AJ95040	2285	016	79,410	79,410
25039	2003	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$75,900.00	A	1HTWGAARX3J062340	2285	023	99,482	99,833
25040	2003	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$76,825.00	A	1HTWGAAR33J062339	2285	017	60,311	60,643
25042	2003	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$76,825.00	A	1HTWGAAR13J062341	2285	140	53,307	53,307
25043	2003	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$80,472.00	A	1HTWGAAR03J078515	2285	019	66,452	66,831
25044	2003	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$80,472.00	A	1HTWGAAR23J078516	2285	017	53,027	53,138
25045	2003	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$80,472.00	A	1HTWGAAR43J078517	2285	016	58,358	58,358
25046	2005	FRLIN	M2106-V 6X4	DUMP TRUCK 10 YD.	$93,090.50	A	1FVHC3DC15HV32208	2285	016	127,731	128,559
25047	2007	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$100,043.00	A	1HTWGAAR77J401819	2285	017	48,476	48,476
25048	2007	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$100,043.00	A	1HTWGAAR37J401820	2285	019	41,385	41,899
25049	2007	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$100,043.00	A	1HTWGAAR57J401821	2285	019	38,465	38,687
25050	2007	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$100,768.00	A	1HTWGAAR77J401822	2285	017	47,575	47,575
25051	2007	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$100,768.00	A	1HTWGAAR97J401823	2285	019	51,778	52,166
25052	2007	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$100,043.00	A	1HTWGAAR07J401824	2285	017	42,814	43,050
25053	2007	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$99,631.00	A	1HTWGAAR27J401825	2285	132	29,305	29,467
25054	2008	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$110,005.00	A	1HTWGAAR48J637944	2285	016	102,859	104,055
25055	2009	IHC	7400 SBA 6X4 LOGG	DUMP TRUCK 18 YD.	$92,525.00	A	1HTWGAAT89J174736	2285	037	54,435	55,203
25056	2009	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$119,927.00	A	1HTWGAARX9J180073	2285	019	28,815	28,534
25057	2009	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$119,927.00	A	1HTWGAAR19J180074	2285	019	28,764	29,285
25058	2009	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$116,778.00	A	1HTWGAAR89J180072	2285	140	27,282	27,602
25059	2010	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$123,327.00	A	1HTWGAAR9AJ286504	2285	019	28,228	29,256
25060	2012	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$152,627.80	A	1HTWGAZT7CJ611105	2285	017	24,097	24,097
25061	2012	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$152,627.80	A	1HTWGAZT9CJ611106	2285	016	40,880	40,880
25062	2012	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$152,627.79	A	1HTWGAZT0CJ611107	2285	017	16,740	16,740
25063	2012	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$152,627.79	A	1HTWGAZT2CJ611108	2285	016	29,802	29,754
25064	2013	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$152,394.18	A	1HTWGAZT3DJ309621	2285	023	23,836	23,836
25065	2013	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$152,394.18	A	1HTWGAZT9DJ309624	2285	016	32,197	30,656
25066	2013	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$152,394.18	A	1HTWGAZT5DJ309622	2285	019	7,035	6,941
25067	2013	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$152,394.18	A	1HTWGAZT7DJ309623	2285	019	14,759	14,208
25068	2014	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD	$151,426.00	A	1HTWGAZT4EH001043	2285	140	4,453	4,400
32 TOTAL UNITS FOR CLASS 2285 CLASS 8 6X4 MIXED USE TRUCKS											
33013	1988	FORD	LN8000	KNUCKLEBOOM CRANE	$37,832.60	A	1FDXR82A7JVA41315	2286	140	44	2,211
33017	2001	STERL	M7500 4X2	KNUCKLEBOOM CRANE	$92,692.00	A	2FZAAKAK02AJ80183	2286	140	1,601	1,601
33018	2006	STERL	ACTERRA	LOG LOADER	$108,835.09	A	2FZACGDC76AW57127	2286	037	8,800	8,865
3 TOTAL UNITS FOR CLASS 2286 KNUCKLEBOOM CRANE											
33016	2001	IHC	2554 6X4	CRANE TRUCK	$196,412.89	A	1HTGCADT91H343766	2287	144	1,787	1,797
1 TOTAL UNIT FOR CLASS 2287 TELESCOPING CRANE											

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
33015	1991	GMC	TC7H042	ATTENUATOR TRUCK	$59,196.60	A	1GDP7H1J3MJ520270	3000	016	65,397	65,397
1 TOTAL UNIT FOR CLASS 3000 CLASS 8 4X2 ATTENUATOR TRUCK											
32014	2003	IHC	7400 6X4	7. DO-AL 12'	$94,098.00	A	1HTWGAARX3J062337	3100	017	50,221	50,343
32015	2003	IHC	7400 6X4	7. DO-AL 12'	$89,230.00	A	1HTWGAAR73J078513	3100	019	64,729	64,748
32016	2003	IHC	7400 6X4	7. DO-AL 12'	$89,230.00	A	1HTWGAAR93J078514	3100	017	70,876	71,158
3 TOTAL UNITS FOR CLASS 3100 CLASS 8 6X4 DO-AL											
32013	2000	IHC	4900 4X2	6. DO-AL 10'	$80,251.01	T	1HTSDAAR9YH233777	3105	019	72,770	72,770
32018	2008	IHC	7400 4X2	6. DO-AL 10'	$118,322.00	A	1THWCAAR68J055842	3105	019	42,283	42,497
2 TOTAL UNITS FOR CLASS 3105 CLASS 8 4X2 DO-AL											
31031	2000	GMC	8500 4X2	JET JETTER	$102,975.00	A	1GDP7H1C6YJ527382	3201	132	14,028	14,073
31032	2003	STERL	M7500 4X2	JET JETTER	$103,740.00	A	2FZABYAK13AL06391	3201	132	11,697	11,753
31040	2009	STERLING	ACTERRA 4X2	JET JETTER	$155,970.00	A	2FZACHBS79AAH7850	3201	132	6,864	6,960
31041	2009	STERLING	ACTERRA 4X2	JET JETTER	$157,970.00	A	2FZACHBS59AAK7159	3201	132	6,453	6,496
31043	2014	IHC	7400 SB 4X2	JET JETTER	$277,200.00	A	1HTWCAAR0EH034875	3201	132	1,331	1,321
5 TOTAL UNITS FOR CLASS 3201 SEWER JET FLUSHER											
37045	2003	IHC	4400 4X2	45 BUCKET TRUCK 45'	$99,626.00	A	1HTMKAAL93H560845	3300	111	9,795	9,807
37046	2003	IHC	4400 4X2	75 BUCKET TRUCK 75'	$113,202.00	T	1HTMKAAR93H566391	3300	037	11,170	11,207
37055	2007	IHC	4300 4X2	60 BUCKET TRUCK 60'	$134,229.00	A	1HTMMAAN17H446792	3300	037	6,521	6,594
37056	2007	FORD	F750 4X2	45 BUCKET TRUCK 45'	$117,732.00	A	3FRWF75S57V507296	3300	111	7,446	7,520
37057	2009	IHC	4300 4X2	60 BUCKET TRUCK 60'	$129,169.00	A	1HTMMAAN29H055864	3300	037	5,744	5,804
37058	2009	FORD	F550 4X4	40 BUCKET TRUCK 40'	$83,710.00	A	1FDAX57R89EA62145	3300	145	752	753
37059	2015	IHC	4400 4X2	55 BUCKET TRUCK 55'	$216,556.00	A	1HTMKARR1FH658051	3300	037	368	368
7 TOTAL UNITS FOR CLASS 3300 AERIAL BUCKET TRUCK											
31008	1979	OSKOS	TU3-P23	TRUCK MOUNTED BLOWER	$88,544.00	A	17793	3500	016	2,310	2,310
31009	1980	OSKOS	TU3-P23	TRUCK MOUNTED BLOWER	$95,614.00	A	18532	3500	016	696	696
2 TOTAL UNITS FOR CLASS 3500 TRUCK MOUNTED SNOWBLOWER											
93280	2005	SNOGO	WK-800	LOADER MOUNTED BLOWER	$65,908.00	A	94456-1	3501	017	368	368
93281	2005	SNOGO	WK-800	LOADER MOUNTED BLOWER	$65,908.00	A	94456-2	3501	019	472	472
93282	2005	SNOGO	WK-800	LOADER MOUNTED BLOWER	$67,708.00	A	94457	3501	016	792	613
93290	2005	SNOGO	WK-800	LOADER MOUNTED BLOWER	$65,908.00	A	97615	3501	016	436	436
4 TOTAL UNITS FOR CLASS 3501 LOADER MOUNTED SNOWBLOWER											
50053	2003	BOBCAT	863 H	LOADER SKID STEER	$31,250.00	A	514451533	3600	016	3,149	3,155
50062	2004	GEHL	5640 T	LOADER SKID STEER	$29,744.00	A	504387	3600	132	547	547
50066	2005	BOBCAT	S185	LOADER SKID STEER	$25,400.00	A	525022207	3600	140	584	584
50068	2005	BOBCAT	463	LOADER SKID STEER	$16,400.00	A	538911888	3600	016	518	519

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
50070	2005	BOBCAT	S250	LOADER SKID STEER	$45,080.00	A	530911052	3600	029	1,378	1,384
50080	2009	BOBCAT	S250	LOADER SKID STEER	$60,065.00	A	A5GM36619	3600	017	2,249	2,286
50081	2009	BOBCAT	S250	LOADER SKID STEER	$44,865.00	A	A5GM36620	3600	019	2,182	2,218
50082	2010	BOBCAT	S300	LOADER SKID STEER	$34,665.00	A	A5GP37204	3600	023	862	866
50083	2010	BOBCAT	S250	LOADER SKID STEER	$42,825.00	A	A5GM37899	3600	017	1,444	1,449
50084	2010	BOBCAT	S250	LOADER SKID STEER	$42,825.00	A	A5GM37900	3600	019	1,079	1,101
10 TOTAL UNITS FOR CLASS 3600 SKIDSTEER LOADER											
53110	1988	HYSTR	H40XL	FORK LIFT	$16,721.00	A	A177B23309H	3601	131	2,796	2,796
53203	1991	TOYOT	42-5FG15	FORK LIFT	$6,000.00	A	405FGU18-70095	3601	EM1	3,542	3,542
53283	2013	DOOSAN	G35S-5	FORK LIFT	$36,495.00	A	FGB01-1290-01088	3601	016	303	303
3 TOTAL UNITS FOR CLASS 3601 LIFT TRUCK											
40083	1990	FORD	250C	LOADER TRACTOR	$25,946.45	A	BC56382	3605	133	1,414	1,414
50059	2004	CASE	570MXT	LOADER TRACTOR	$69,645.00	A	JJG0301466	3605	030	3,281	3,281
50060	2004	CASE	570MXT	LOADER TRACTOR	$69,645.00	A	JJG0301506	3605	028	3,357	3,364
50061	2004	CASE	570MXT	LOADER TRACTOR	$69,645.00	A	JJG0301516	3605	031	3,292	3,292
4 TOTAL UNITS FOR CLASS 3605 TRACTOR/LOADER											
50040	1995	CAT	426B	T/ LOADER BACKHOE	$65,761.00	A	6KL00835	3630	132	3,016	3,016
50044	1997	FORD	545D/DD5PW2	T/ LOADER DROP HAMMER	$52,064.76	A	A441158	3630	140	1,296	1,296
50057	2003	CAT	430D	T/ LOADER BACKHOE	$88,896.00	A	CAT0430DABNK03572	3630	132	3,278	3,320
50058	2004	JD	410G	T/ LOADER BACKHOE	$82,900.00	A	T0410GX929059	3630	140	4,297	4,312
50067	2005	JD	410G	T/ LOADER BACKHOE	$87,000.00	A	T0410GX950567	3630	140	3,426	3,461
50071	2006	CAT	430E	T/ LOADER BACKHOE	$100,700.00	A	CAT0430EEEAT00702	3630	140	3,662	3,674
50073	2007	CAT	430E	T/ LOADER BACKHOE	$109,173.00	A	CAT0430EEEAT00738	3630	023	1,829	1,854
50074	2007	CAT	430E	T/ LOADER BACKHOE	$133,191.00	A	CAT0430EEEAT00716	3630	017	4,552	4,586
50075	2007	CAT	430E	T/ LOADER BACKHOE	$133,191.00	A	CAT0430EEEAT00746	3630	019	4,882	4,887
50079	2008	JD	410J	T/ LOADER BACKHOE	$103,000.00	A	T0410JX158407	3630	016	2,159	2,173
50086	2015	CAT	430F	T/ LOADER BACKHOE	$137,923.00	A	CAT0430FARDF00834	3630	140	225	251
11 TOTAL UNITS FOR CLASS 3630 TRACTOR/BACKHOE/LOADER											
53261	2009	TORO	5900D (31315)	ROTARY MOWER 16'	$73,398.62	A	31598-310000107	3729	029	1,988	2,041
53262	2009	TORO	5900D (31598)	ROTARY MOWER 16'	$73,398.62	A	31598-290000309	3729	030	1,318	1,693
53264	2010	TORO	5900D (31598)	ROTARY MOWER 16'	$75,430.00	A	31598-311000111	3729	030	1,722	1,793
53265	2010	TORO	5900D (31598)	ROTARY MOWER 16'	$75,430.00	A	31598-311000114	3729	028	1,669	1,734
53266	2010	TORO	5900D (31598)	ROTARY MOWER 16'	$75,430.00	A	31598-311000116	3729	031	981	1,338
5 TOTAL UNITS FOR CLASS 3729 15 FT./16FT. RIDING MOWER											
53232	2005	TORO	GM228D	ROTARY MOWER 52	$15,811.00	A	30241-240000367	3730	027	962	977
53233	2005	TORO	GM228D	ROTARY MOWER 52	$15,811.00	A	30241-240000362	3730	030	852	843
53240	2006	TORO	GM328(30626)	ROTARY MOWER 72	$14,279.00	A	30626-250000459	3730	031	1,395	1,417
53243	2006	TORO	GM328(30626)	ROTARY MOWER 72	$25,153.11	A	30626-250000458	3730	027	1,187	1,192
53246	2006	TORO	GM328(30626)	ROTARY MOWER 72	$23,982.11	A	30626-250000437	3730	030	1,630	1,683
53247	2006	TORO	GM328(30626)	ROTARY MOWER 72	$25,595.11	A	30626-250000454	3730	029	1,426	1,468

CITY OF LINCOLN
FLEET SERVICES
LIST OF UNITS BY MULTIPLE PARAMETERS

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
53248	2006	TORO	GM328(30626)	ROTARY MOWER 72	$24,256.11	A	30626-250000452	3730	030	1,076	1,124
53249	2006	TORO	GM328(30626)	ROTARY MOWER 72	$24,256.11	A	30626-250000460	3730	029	1,131	1,131
53258	2007	TORO	GM328(30626)	ROTARY MOWER 72	$18,709.10	O	270000621	3730	019	687	687
53259	2007	TORO	GM328(30626)	ROTARY MOWER 72	$18,709.10	O	270000623	3730	019	719	719
53263	2010	TORO	GM328D(30626)	ROTARY MOWER 72	$19,313.00	A	310000203	3730	019	875	900
53270	2010	TORO	GM3280D(30344)	ROTARY MOWER 72	$19,400.00	A	30344-310000394	3730	019	1,160	1,297
53271	2010	TORO	GM3280D(30344)	ROTARY MOWER 72	$19,357.00	A	30344-310000392	3730	017	546	579
53272	2010	TORO	GM3280D(30344)	ROTARY MOWER 72	$19,357.00	A	30344-310000391	3730	017	536	554
53273	2011	TORO	GM7210(30465)	ROTARY MOWER 62 Z	$44,878.00	A	30465-31100227	3730	028	461	461
53278	2012	TORO	GM3280D(30344)	ROTARY MOWER 72	$19,399.00	A	30344-312000238	3730	031	526	526
53279	2012	TORO	GM3280D(30344)	ROTARY MOWER 72	$24,848.00	A	30344-312000172	3730	031	373	373
53280	2012	TORO	GM3280D(30344)	ROTARY MOWER 72	$20,003.00	A	30344-312000170	3730	019	853	853
53281	2012	TORO	GM7210(30468)	ROTARY MOWER 60 Z	$20,815.00	A	30468-312000304	3730	016	186	185
53282	2012	TORO	GM7210(30465)	ROTARY MOWER 62 Z	$52,768.00	A	30465-312000308	3730	028	493	515
20 TOTAL UNITS FOR CLASS 3730 3 FT./6 FT. RIDING MOWER											
53251	2007	TORO	4000D(30410)	ROTARY MOWER 11'	$40,424.20	A	270000857	3735	028	2,170	2,191
53252	2007	TORO	4000D(30410)	ROTARY MOWER 11'	$40,424.20	A	270000834	3735	028	2,302	2,343
53253	2007	TORO	4000D(30410)	ROTARY MOWER 11'	$40,424.20	A	270000837	3735	031	1,936	1,966
53254	2007	TORO	4000D(30410)	ROTARY MOWER 11'	$40,424.20	A	270000835	3735	030	2,078	2,111
53255	2007	TORO	4000D(30410)	ROTARY MOWER 11'	$40,424.20	A	270000704	3735	029	2,424	2,424
53260	2009	TORO	4000D(30412)	ROTARY MOWER 11'	$60,766.00	A	290000335	3735	028	1,425	1,454
53267	2010	TORO	4000D(30448)	ROTARY MOWER 11'	$56,924.00	A	30448-311000160	3735	028	1,226	1,291
53268	2010	TORO	4000D(30448)	ROTARY MOWER 11'	$47,763.00	A	30448-311000162	3735	029	597	1,516
53269	2010	TORO	4000D(30448)	ROTARY MOWER 11'	$47,763.00	A	30448-311000163	3735	030	1,531	1,579
53274	2012	TORO	4000D(30448)	ROTARY MOWER 11'	$50,185.75	A	30448-312000238	3735	028	976	976
53275	2012	TORO	4000D(30448)	ROTARY MOWER 11'	$50,185.75	A	30448-312000235	3735	029	1,111	1,111
53276	2012	TORO	4000D(30448)	ROTARY MOWER 11'	$50,185.75	A	30448-312000222	3735	031	939	939
53277	2012	TORO	4000D(30448)	ROTARY MOWER 11'	$50,185.75	A	30448-312000244	3735	030	1,075	1,075
53284	2014	TORO	4000D(30448N)	ROTARY MOWER 11'	$66,689.00	A	30448-314000271	3735	030	231	231
53285	2014	TORO	4000D(30448N)	ROTARY MOWER 11'	$56,544.00	A	30448-314000295	3735	031	130	130
53286	2014	TORO	4000D(30448N)	ROTARY MOWER 11'	$56,544.00	A	30448-314000333	3735	031	70	70
16 TOTAL UNITS FOR CLASS 3735 10 FT./11 FT. RIDING MOWER											
95193	1998	WOODS	C114-1	PULL TYPE MOWER 9.5'	$4,556.00	A	642865	3741	017	131	131
95204	2000	BSHOG	307	PULL TYPE MOWER 7'	$3,880.36	A	12-11023	3741	031	131	131
95205	2000	BSHOG	307	PULL TYPE MOWER 7'	$3,880.36	A	12-11024	3741	031	131	131
95214	2005	WOODS	C114-1	PULL TYPE MOWER 9.5'	$5,976.95	A	989940	3741	017	121	121
95215	2005	WOODS	C114-1	PULL TYPE MOWER 9.5'	$5,976.95	A	989942	3741	019	121	121
95226	2007	ALAMO	SHD88	3-POINT FLAIL MOWER 88	$5,946.00	A	01800	3741	016	95	95
6 TOTAL UNITS FOR CLASS 3741 5FT./10FT. PULLTYPE MOWER											
95217	2006	LNDPD	RCB6015	PULL TYPE MOWER 15'	$12,128.00	A	495290	3742	028	104	104
95219	2006	LNDPD	RCB6015	PULL TYPE MOWER 15'	$12,128.00	A	528917	3742	029	101	101
95220	2006	LNDPD	RCB6015	PULL TYPE MOWER 15'	$12,128.00	A	528918	3742	017	101	101
95221	2006	LNDPD	RCB6015	PULL TYPE MOWER 15'	$12,128.00	A	528920	3742	031	101	101
95222	2006	LNDPD	RCB6015	PULL TYPE MOWER 15'	$12,128.00	A	528919	3742	030	101	101

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
95223	2006	LNDPD	RCB6015	PULL TYPE MOWER 15'	$12,128.00	A	528921	3742	019	101	101
95224	2006	LNDPD	RCB6015	PULL TYPE MOWER 15'	$12,128.00	A	528932	3742	019	101	101
	7 TOTAL UNITS FOR CLASS 3742 15FT. PULLTYPE MOWER										
96325	2004	TROYB	BIG RED	ROTO TILLER	$2,378.00	A	1E213G90018	3750	027	131	131
	1 TOTAL UNIT FOR CLASS 3750 ROTOTILLER										
95206	2003	SCAG	SWZ48A-17KAE	WALK BEHIND MOWER 48	$4,280.00	A	7930091	3770	029	131	131
95218	2007	SCAG	SWZ48V-KAIE	WALK BEHIND MOWER 48	$5,173.00	A	C1100173	3770	028	102	102
95234	2012	TORO	GRANDSTAND 74534	WALK BEHIND MOWER 36	$6,092.70	A	3120000272	3770	017	27	28
95235	2012	TORO	GRANDSTAND 74534	WALK BEHIND MOWER 36	$6,092.70	A	3120000268	3770	019	33	34
95236	2012	TORO	GRANDSTAND 74534	WALK BEHIND MOWER 36	$6,092.70	A	3120000241	3770	016	14	15
	5 TOTAL UNITS FOR CLASS 3770 3 FT./5 FT. MID-SIZE MOWER										
35003	1991	FORD	F450	WREC WRECKER	$34,661.00	A	2FDLF47G8MCA22084	3900	EM1	59,163	59,263
	1 TOTAL UNIT FOR CLASS 3900 MISC. SPC PURPOSE TRUCKS										
31036	2005	STERL	LT8500 6X4	VACT VACTOR/FLUSHER/JETTER/HYD	$225,264.00	A	2FZHAWDAX5AN83472	3902	016	29,744	30,002
	1 TOTAL UNIT FOR CLASS 3902 CATCHBASIN CLEANER										
37044	2003	STERL	LT8500 6X4 MCNEIL	TRANSIT MIXER	$89,214.00	A	2FZHAWBS43AL06390	3903	017	7,629	7,677
37050	2004	STERL	ACTERRA 6X4 CEMTE	VOLUMETRIC CONCRETE MIXER	$128,878.00	A	2FZHCHDC74AM88258	3903	017	9,999	10,075
	2 TOTAL UNITS FOR CLASS 3903 MOBILE CONCRETE DISPENSER										
32017	2004	GMC	W5500	PAINT STRIPER	$135,846.00	A	J8DE5B14247902813	3905	111	1,962	2,021
	1 TOTAL UNIT FOR CLASS 3905 TRAFFIC LANE STRIPER										
40065	1987	KUB	L2550	UTILITY TRACTOR	$9,845.70	A	54272	4000	131	2,068	2,068
40066	1988	KUB	L2850D	UTILITY TRACTOR	$12,930.00	A	54515	4000	133	1,542	1,542
40084	1991	JD	2155	UTILITY TRACTOR	$17,159.56	A	L02155R741842	4000	028	1,957	1,957
40086	2001	JD	4300 (HST)	UTILITY TRACTOR	$17,208.00	A	LV4300H430280	4000	029	1,160	2,176
40087	2001	JD	5520	UTILITY TRACTOR	$23,157.85	A	LV5520C150015	4000	031	1,953	1,958
40089	2001	JD	4600	UTILITY TRACTOR	$14,696.16	A	LV4600C464037	4000	022	2,828	2,860
40090	2002	JD	5520	UTILITY TRACTOR	$34,632.00	A	LV5520S252839	4000	029	1,562	1,562
40091	2003	NWHLD	TL90	UTILITY TRACTOR	$29,636.05	A	1294858	4000	031	4,195	4,259
40092	2003	NWHLD	TL90	UTILITY TRACTOR	$29,636.05	A	1292561	4000	030	3,198	3,231
40093	2005	JD	5525	UTILITY TRACTOR	$35,346.50	A	LV5525P153242	4000	031	1,733	1,740
40094	2005	JD	5525	UTILITY TRACTOR	$35,346.50	A	LV5525P153243	4000	030	711	711
40095	2005	JD	5525	UTILITY TRACTOR	$35,346.50	A	LV5525P153241	4000	028	1,710	1,738
40096	2005	JD	5525	UTILITY TRACTOR	$35,346.50	A	LV5525P153086	4000	029	1,205	1,142
40097	2005	CHLGR	MT275B	UTILITY TRACTOR	$17,315.00	A	JNB35106	4000	022	1,746	1,754
40098	2013	JD	4720	UTILITY TRACTOR W/LOADER	$37,941.98	A	1LV4720HDVH916325	4000	031	84	93
	15 TOTAL UNITS FOR CLASS 4000 UTILITY TRACTOR										

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
41005	1996	NEW HOLLAN	5640SL	AG. TRACTOR	$36,657.00	A	018004B	4100	145	2,045	2,045
41008	2001	NWHLD	TN75D	AG. TRACTOR	$40,024.00	A	001248423	4100	027	3,079	3,090
41010	2003	CHLGR	MT465	AG. TRACTOR	$43,696.87	A	ABEF24ABXK-L27197	4100	017	2,397	2,409
41011	2005	AGCO	RT100	AG. TRACTOR	$52,208.50	A	M255043	4100	017	4,185	4,228
41012	2005	AGCO	RT100	AG. TRACTOR	$52,208.50	A	M330031	4100	019	3,615	3,645
41013	2006	AGCO	RT100	AG. TRACTOR	$56,061.00	A	P082040	4100	019	3,077	3,099
41014	2006	AGCO	RT100	AG. TRACTOR	$56,061.00	A	P129014	4100	017	253	2,909
41015	2005	CHLGR	MT465B	AG. TRACTOR	$52,092.42	A	N264044	4100	037	2,862	2,862
41016	2008	JD	5625	AG. TRACTOR	$56,095.13	A	LV5625R264615	4100	016	1,028	1,028
41017	2013	NEW HOLLAN	T6.165	AG. TRACTOR	$71,090.00	A	ZDBD01349	4100	019	221	220
41018	2013	NEW HOLLAN	T6.165	AG. TRACTOR	$71,090.00	A	ZDBD01579	4100	016	349	354
41019	2014	NEW HOLLAN	T6.165	AG. TRACTOR	$78,895.61	A	ZDBD20900	4100	016	392	393
12	TOTAL UNITS FOR CLASS 4100 AGRICULTURE TRACTOR										
95238	2014	DIAMOND	RBU-C-U	20' BOOM MOWER	$35,947.00	A	8336	4101	016	18	18
1	TOTAL UNIT FOR CLASS 4101 20FT. BOOM MOWER										
51032	2005	DYNPC	CC900D	ROLLER	$19,898.00	A	89230654	5200	017	1,100	1,108
51033	2005	DYNPC	CC900D	ROLLER	$19,898.00	A	89230689	5200	019	760	760
51034	2007	DYNPC	CC900D	ROLLER	$23,342.00	A	89231273	5200	019	780	805
51035	2007	DYNPC	CC900D	ROLLER	$23,342.00	A	89231247	5200	017	630	636
4	TOTAL UNITS FOR CLASS 5200 ASPHALT ROLLER										
50039	1995	CASE	621-B	LOADER WHEEL	$86,500.00	A	JEE0041695	5400	017	4,709	4,709
50054	2003	CAT	928G	LOADER WHEEL	$129,665.00	A	CAT0928GLDJD00487	5400	023	6,159	6,170
50063	2005	CAT	928G	LOADER WHEEL	$123,500.00	A	CAT0928GCDJD01577	5400	017	5,622	5,652
50064	2005	CAT	928G	LOADER WHEEL	$123,500.00	A	CAT0928GJDJD01584	5400	019	3,062	3,076
50065	2005	CAT	928G	LOADER WHEEL	$123,500.00	A	CAT0928GTDJD01600	5400	016	4,143	4,161
50069	2006	CAT	928G	LOADER WHEEL	$123,500.00	A	CAT0928GEDJD02159	5400	016	4,145	4,163
50072	2007	CASE	621-D	LOADER WHEEL	$102,841.00	A	JEE0200244	5400	019	2,147	2,195
50077	2008	CAT	928HZ	LOADER WHEEL	$134,750.00	A	CAT0928HECXK00328	5400	019	3,566	3,602
50078	2008	CAT	928HZ	LOADER WHEEL	$134,750.00	A	CAT0928HHCXK00330	5400	017	3,924	3,924
50085	2013	JD	524K	LOADER WHEEL	$139,569.00	A	1DW524KZHDE657019	5400	016	369	368
10	TOTAL UNITS FOR CLASS 5400 RUBBER TIRED LOADER										
51012	1975	CAT	120G	MOTOR GRADER	$43,000.00	A	87V896	5510	019	3,184	13,184
51014	1975	CAT	120G	MOTOR GRADER	$43,000.00	A	87V643	5510	016	2,050	12,054
51027	1990	CHAMP	720A	MOTOR GRADER	$85,055.04	A	20838	5510	019	8,882	8,873
51028	1990	CHAMP	720A	MOTOR GRADER	$85,055.04	A	20842	5510	017	4,771	4,771
51030	2003	CAT	140H II VHP	MOTOR GRADER	$192,263.00	A	CAT0140HVAPM00566	5510	017	7,255	7,278
51031	2004	JD	770CH	MOTOR GRADER	$155,715.00	A	DW770CH590450	5510	016	5,024	5,058
6	TOTAL UNITS FOR CLASS 5510 ARTIC. FRAME MOTORGRADER										
31034	2004	ELGIN	EAGLE F SERIES	STREET SWEEPER	$237,711.00	A	49HAADBV74DM76230	5700	016	11,637	11,751

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
31035	2004	ELGIN	EAGLE F SERIES	STREET SWEEPER	$225,104.00	A	49HAADBV94DM76231	5700	016	13,349	13,428
31037	2006	ELGIN	EAGLE F SERIES	STREET SWEEPER	$284,895.00	A	49HAADBV86DV10954	5700	016	12,030	12,024
31038	2006	ELGIN	EAGLE F SERIES	STREET SWEEPER	$284,895.00	A	49HAADBV36DV10974	5700	016	11,087	11,217
31039	2006	ELGIN	EAGLE F SERIES	STREET SWEEPER	$284,895.00	A	49HAADBV56DV10975	5700	016	10,734	10,874
31042	2009	ELGIN	EAGLE F SERIES	STREET SWEEPER	$331,024.00	A	JNAPC81L98AE70200	5700	016	8,248	8,334
6 TOTAL UNITS FOR CLASS 5700 4-WHL. STREET SWEEPER											
96326	2004	VERMR	SC752	STUMPER	$31,488.00	A	1VRN151U041000985	5710	037	1,695	1,695
1 TOTAL UNIT FOR CLASS 5710 TREESPADE/STUMPER											
92066	1984	GORMN	14D2-K321P	WATER PUMP	$2,664.00	A	810727	6010	016	131	131
1 TOTAL UNIT FOR CLASS 6010 1IN.-3IN. WATERPUMP											
92143	1986	GORMN	16C20F300	WATER PUMP	$11,192.12	A	845421	6011	132	1,600	1,600
1 TOTAL UNIT FOR CLASS 6011 4IN.-8IN. WATERPUMP											
96233	1997	SMITH	6905	SPRAYER	$4,198.00	A	S425	6020	031	131	131
96255	1999	SMITH	1C200	SPRAYER	$6,345.00	A	1C200	6020	019	131	131
96300	2003	B&B	TT200HES99	SPRAYER	$5,545.00	A	021104	6020	030	131	131
96301	2003	B&B	TT200HES99	SPRAYER	$6,563.00	A	020703	6020	029	131	131
96311	2003	CLARK	GRIZZLY	SPRAYER	$10,650.00	A	101824	6020	016	131	131
96312	2003	CLARK	GRIZZLY	SPRAYER	$10,650.00	A	101827	6020	016	131	131
96313	2003	CLARK	GRIZZLY	SPRAYER	$10,650.00	A	101825	6020	028	131	131
96314	2003	CLARK	GRIZZLY	SPRAYER	$10,650.00	A	101823	6020	030	131	131
96356	2005	SDI	300-20H5M	SPRAYER	$11,114.00	A	52904	6020	031	121	121
96383	2008	B&B TECH.	US60B4R -SPRAYER	SPRAYER	$3,571.00	A	080584	6020	027	86	86
96431	2012	TORO	41235	SPRAYER 200 GALLON	$14,756.00	A	41235-312000124	6020	028	40	40
11 TOTAL UNITS FOR CLASS 6020 SPRAYER											
92236	2005	ALMMD	NIGHTLITEPRO 6XW	GENERATOR/LIGHT PLANT	$6,535.00	A	2083PRO05	6501	016	320	320
92238	2006	ALMMD	NIGHTLITEPRO 6XW	GENERATOR/LIGHT PLANT	$6,861.50	A	1834PRO06	6501	019	65	65
92239	2007	ALMMD	NIGHTLITEPRO 6XW	GENERATOR/LIGHT PLANT	$7,325.00	A	3088PRO07	6501	017	85	85
92271	2012	KOHLER	15REY-G 15 KW	GENERATOR/CAB POWER	$10,000.00	A	3045302	6501	048	2,807	2,807
4 TOTAL UNITS FOR CLASS 6501 GENERATOR/METERED											
92206	2002	VRMAC	ST-4825	ARROW BOARD	$4,000.00	A	2S9US11142S132759	6505	016	131	131
92207	2002	VRMAC	ST-4825	ARROW BOARD	$4,000.00	O	2S9US11102S132760	6505	019	0	0
92210	2003	VRMAC	ST-4825	ARROW BOARD	$4,000.00	A	2S9US11113S132395	6505	016	131	131
92211	2004	VRMAC	ST-4825	ARROW BOARD	$4,000.00	A	2S9US11194S132551	6505	019	131	131
92212	2004	VRMAC	ST-4825	ARROW BOARD	$4,000.00	A	2S9US11104S132552	6505	017	131	131
92213	2004	VRMAC	ST-4825	ARROW BOARD	$4,000.00	A	2S9US11174S132550	6505	132	131	131
92216	2002	VRMAC	PCMS 1210 RS	MESSAGE BOARD #B1	$12,000.00	A	01-07776RS	6505	111	128	128
92217	2002	VRMAC	PCMS 1210 RS	MESSAGE BOARD #B2	$12,000.00	A	01-07777RS	6505	111	128	128
92218	2002	VRMAC	PCMS 1210 RS	MESSAGE BOARD #B3	$12,000.00	A	01-07778RS	6505	111	128	128

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UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
92219	2002	VRMAC	PCMS 1210 RS	MESSAGE BOARD #B4	$12,000.00	A	01-07779RS	6505	111	128	128
92220	2003	VRMAC	PCMS 1210	MESSAGE BOARD #B5	$12,000.00	A	2S9US41542S132121	6505	111	128	128
92221	2003	VRMAC	PCMS 1210	MESSAGE BOARD #B6	$10,000.00	A	2S9US41562S132122	6505	111	128	128
92222	2003	VRMAC	PCMS 548	MESSAGE BOARD #S1	$10,000.00	A	2S9US11122S132078	6505	111	128	128
92223	2003	VRMAC	PCMS 548	MESSAGE BOARD #S2	$10,000.00	A	2S9US11142S132079	6505	111	128	128
92224	2003	VRMAC	PCMS 548	MESSAGE BOARD	$10,000.00	A	2S9US11102S132080	6505	111	128	128
92225	2003	VRMAC	PCMS 548	MESSAGE BOARD /S4	$10,000.00	A	2S9US11122S132081	6505	111	128	128
92226	2003	VRMAC	PCMS 548	MESSAGE BOARD /	$10,000.00	A	2S9US11142S132082	6505	111	128	128
92228	2002	VRMAC	PCMS 548 RS	MESSAGE BOARD /S7	$10,000.00	A	2S9US11141S132047	6505	111	128	128
92229	2002	VRMAC	PCMS 548 RS	MESSAGE BOARD /S8	$10,000.00	A	2S9US11161S132048	6505	111	128	128
92230	2002	VRMAC	PCMS 548 RS	MESSAGE BOARD	$10,000.00	A	2S9US11181S132049	6505	111	128	128
92231	2002	VRMAC	PCMS 548 RS	MESSAGE BOARD	$10,000.00	A	2S9US11141S132050	6505	111	128	128
92232	2002	VRMAC	PCMS 548 RS	MESSAGE BOARD	$10,000.00	A	2S9US11161S132051	6505	111	128	128
92233	2002	VRMAC	PCMS 548 RS	MESSAGE BOARD #S12	$10,000.00	A	2S9US11181S132052	6505	111	128	128
92234	2002	VRMAC	PCMS 548 RS	MESSAGE BOARD	$10,000.00	A	2S9US111X1S132053	6505	111	128	128
92251	2010	OMJC	KDPTS	TRAFFIC SIGNAL	$20,000.00	A	1358PU2010	6505	111	61	61
92253	2010	NATIONAL S	AROLITE CURVE 40	ARROW BOARD	$3,740.00	A	1N9AL1014AF272320	6505	019	58	58
92254	2011	ADDCO	DH500-BRK	MESSAGE BOARD	$18,000.00	A	4SEPN161XBM4SE038	6505	111	53	53
92255	2011	ADDCO	DH500-BRK	MESSAGE BOARD	$18,000.00	A	4SEPN1618BM4SE037	6505	111	53	53
92256	2011	ADDCO	DH250-FM	MESSAGE BOARD	$18,000.00	A	4SEPA0910BM4SE020	6505	111	53	53
92257	2011	ADDCO	DH250-FM	MESSAGE BOARD	$18,000.00	A	4SEPA0912BM4SE021	6505	111	53	53
92258	2011	ADDCO	DH250-FM	MESSAGE BOARD	$18,000.00	A	4SEPA0916BM4SE023	6505	111	53	53
92259	2011	ADDCO	DH250-FM	MESSAGE BOARD	$18,000.00	A	4SEPA0914BM4SE022	6505	111	53	53
92260	2008	ADDCO	MAG	MESSAGE BOARD	$15,000.00	A	4SEPA09148M4SE028	6505	111	52	52
92261	2008	ADDCO	MAG	MESSAGE BOARD	$15,000.00	A	4SEPA09168M4SE029	6505	111	52	52
92262	2011	O.M.J.C.	OPNW-234-S	TRAFFIC SIGNAL WIRELESS	$33,998.00	A	HD1427PU2011	6505	111	45	45
92263	2011	O.M.J.C.	OPNW-234-S	TRAFFIC SIGNAL WIRELESS	$33,998.00	A	HD1423PU2011	6505	111	45	45
92264	2011	O.M.J.C.	OPNW-234-M	TRAFFIC SIGNAL WIRELESS	$45,998.00	A	HD1425PU2011	6505	111	45	45
92265	2011	O.M.J.C.	OPNW-234-M	TRAFFIC SIGNAL WIRELESS	$45,998.00	A	HD1428PU2011	6505	111	45	45
92266	2012	O.M.J.C.	OPNW-234-S	TRAFFIC SIGNAL WIRELESS	$34,748.00	A	HD1441PU2012	6505	111	38	38
92267	2012	O.M.J.C.	OPNW-234-S	TRAFFIC SIGNAL WIRELESS	$34,748.00	A	HD1446PU2012	6505	111	38	38
92268	2012	O.M.J.C.	OPNW-234-M	TRAFFIC SIGNAL WIRELESS	$46,748.00	A	HD1440PU2012	6505	111	38	38
92269	2012	O.M.J.C.	OPNW-234-M	TRAFFIC SIGNAL WIRELESS	$46,748.00	A	HD1439PU2012	6505	111	38	38
92270	2012	O.M.J.C.	SPJ-1435	TRAFFIC COUNTER WIRELESS	$14,938.49	A	SPJ1452PU2012	6505	111	37	37
92272	2012	NATIONAL S	AROLITE CURVE 40	ARROW BOARD	$4,140.00	A	1N9AL1014CF272210	6505	017	34	34
92273	2012	NATIONAL S	AROLITE CURVE 40	ARROW BOARD	$4,140.00	A	1N9AL1016CF272211	6505	019	34	34
92274	2013	K&K SYSTEM	AT254896	ARROW BOARD	$4,475.61	A	1K9BA0814DT244641	6505	017	24	24
92275	2013	K&K SYSTEM	AT254896	ARROW BOARD	$4,475.61	A	1K9BA0816DT244642	6505	019	24	24
92276	2013	K&K SYSTEM	AT254896	ARROW BOARD	$4,475.61	A	1K9BA081XDT244658	6505	019	23	23
92277	2013	K&K SYSTEM	AT254896	ARROW BOARD	$4,475.61	A	1K9BA0811DT244659	6505	017	23	23
92278	2013	K&K SYSTEM	AT254896	ARROW BOARD	$4,475.61	A	1K9BA0818DT244660	6505	017	23	23
	50	TOTAL UNITS FOR CLASS 6505 TRAFFIC DIRECTOR									
52024	1991	OLATH	48HL	TURF SWEEPER	$8,757.00	A	481407 LDL	7000	028	131	131
52025	1993	OLATH	5400HL	TURF SWEEPER	$10,492.00	A	30141	7000	029	131	131
90085	2005	DANSU	F-8	POST HOLE AUGER	$2,910.00	A	079265	7000	030	116	116
90091	2007	DANSU	F-8	POST HOLE AUGER	$3,335.00	A	079752	7000	031	98	98
96292	2002	LNDPD	OS1548	SEEDER	$5,030.17	A	350876	7000	028	131	131
96310	2003	SUKUP	2100 7'	SEEDER	$14,398.37	A	07267	7000	028	131	131

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
96355	2005	WOODS	SGT-80	ROTOVATOR	$3,750.00	A	943027	7000	031	123	123
96381	2008	LAND PRIDE	OS1548	SEEDER	$7,335.00	A	543361	7000	031	87	87
96382	2008	RYAN	544854D	SOD CUTTER	$7,969.00	A	54485400351	7000	030	86	86
96404	2009	CLASSEN	TA-25D AERATOR 24	AERATOR	$2,799.00	A	002100	7000	027	76	76
96407	2009	TORO	687	AERATOR	$5,440.00	A	44860-310000114	7000	031	67	67
96433	2012	REDEMXIM	1575	SEEDER	$13,250.00	A	C402212	7000	029	33	33
	12	TOTAL UNITS FOR CLASS 7000 MISC. AG. EQUIPMENT									
96408	2010	TORO	PROFORCE (44538)	TURF BLOWER	$6,144.00	A	310000359	7010	028	101	108
96430	2012	TORO	PROFORCE (44539)	TURF BLOWER	$6,754.00	A	310000109	7010	031	154	154
	2	TOTAL UNITS FOR CLASS 7010 MISC. AG /METERED									
90077	1999	CORCT	CC1816KM-S	WALK BEHIND CONCRETE SAW	$2,900.00	A	1260982	7500	024	131	131
90080	2002	TARGT	PACIV20H	WALK BEHIND CONCRETE SAW	$3,877.49	A	375768	7500	017	131	131
90087	2007	TARGT	PACIV20H	WALK BEHIND CONCRETE SAW	$4,950.00	A	000231435001	7500	019	101	101
90088	2007	TARGT	PACIV20H	WALK BEHIND CONCRETE SAW	$4,950.00	A	000231435002	7500	017	101	101
90092	2010	FALCON	S2D1XID	ASPHALT HOT BOX TRAILER	$17,147.00	A	1F9P2162XAM339126	7500	017	57	57
90093	2010	FALCON	S2D1XID	ASPHALT HOT BOX TRAILER	$17,147.00	A	1F9P2162AM339127	7500	017	57	57
90094	2010	FALCON	S2D1XID	ASPHALT HOT BOX TRAILER	$17,147.00	A	1F9P21623AM339128	7500	019	57	56
90095	2010	FALCON	S2D1XID	ASPHALT HOT BOX TRAILER	$17,147.00	A	1F9P21625AM339129	7500	019	57	56
90098	1999	CORE CUT	CC2525KC-26	WALK BEHIND CONCRETE SAW	$4,950.00	A	1257078	7500	140	56	56
90104	2015	MIKSA	MVC-90H	WALK BEHIND PLATE COMPACT	$2,425.00	A	A-3485	7500	019	1	1
90105	2015	MALAVASI	MG7	MINI-PAVER	$44,576.00	A	07-146	7500	019	2	2
90106	2015	MALAVASI	MG7	MINI-PAVER	$44,576.00	A	07-145	7500	017	2	2
92178	1995	WACHS	TLV-80	TRAILER VAC UNIT	$12,529.00	A	10594	7500	140	131	131
92198	2001	GENRL	RD-E-M-A	RODDER	$3,077.10	A	RD3J521	7500	016	131	131
92243	2007	VACTR	FM350SDT-G	TRAILER VAC UNIT	$49,968.00	A	U100444	7500	140	419	109
92279	2014	TRAFFIX DE	10002-TL2	TRAILER TYPE ATTENUATOR	$20,994.25	A	1E9TF160DVC521405	7500	016	15	15
92281	2014	VACTRON	LP MINI 333 XDT	TRAILER VAC UNIT	$48,961.06	A	151002	7500	140	16	82
	17	TOTAL UNITS FOR CLASS 7500 MISC. STREET EQUIPMENT									
53220	2003	ARROW	1350	CONCRETE HYDRO-HAMMER	$75,700.00	A	6717	7501	017	1,223	1,232
	1	TOTAL UNIT FOR CLASS 7501 ARROW HYDRO-HAMMER									
90107	2015	ROADHOG	RH48200TLT-WR	LOADER MTD. PLANER	$132,257.00	A	1506014	7502	017	2	4
90108	2015	ROADHOG	RH48200TLT-WR	LOADER MTD. PLANER	$132,257.00	A	1506015	7502	019	2	4
	2	TOTAL UNITS FOR CLASS 7502 LOADER MTD. PLANER									
90083	2005	CIMLN	MAGMA 110DH	CRACK SEALER	$19,990.50	A	05-110-222	7505	019	1	6,072
90084	2005	CIMLN	MAGMA 110DH	CRACK SEALER	$19,990.50	A	05-110-223	7505	017	200	4,476
90086	2006	M & B	0520906 1500	THERMO PLASTIC MELTER	$50,476.00	A	0520906527	7505	111	2,338	2,398
90102	2014	CIMLN	MAGMA 230	CRACK SEALER	$47,102.00	A	1G9241520EM119007	7505	019	925	925
90103	2014	CIMLN	MAGMA 230	CRACK SEALER	$47,102.00	A	1G9241528EM119014	7505	017	870	870
	5	TOTAL UNITS FOR CLASS 7505 DIESEL PAVING EQUIPMENT									

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UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
96329	2004	VERMR	BC1000XL	CHIPPER	$24,091.00	A	1VRY1119241005087	7510	037	19	2,006
96361	2005	VERMR	BC1400XL	CHIPPER	$30,798.00	A	1VRU1614051001895	7510	037	2,144	2,144
96362	2005	VERMR	BC1000XL	CHIPPER	$25,222.00	A	1VRY1119561006995	7510	037	2,237	2,262
96378	2007	VERMR	BC1000XL	CHIPPER	$27,587.96	A	1VRY1119181009492	7510	037	2,101	2,096
96434	2013	VERMR	BC1200XL	CHIPPER	$41,135.00	A	1VR7141Y8D1001176	7510	037	350	350
5 TOTAL UNITS FOR CLASS 7510 BRUSH CHIPPER											
92165	1990	MILLR	LEGEND200LE	WELDER	$2,730.00	A	KA750550	7600	EM1	131	131
92184	1996	STRAL	718AC	STARTING UNIT	$4,306.40	A	76923	7600	EM1	131	131
92192	1999	MILLR	LEGEND NT	WELDER	$3,223.00	A	KJ148824	7600	017	131	131
92197	2001	STRAL	718AC	STARTING UNIT	$5,475.00	A	84847	7600	EM1	131	131
92209	2003	MILLR	TBLAZER 301G	WELDER	$5,943.25	A	LC036130	7600	024	131	131
92215	2004	MI-TM	HS-3506-OMGH	PRESSURE WASHER	$5,653.00	A	15016374	7600	023	131	131
92246	2009	HOTSY	982SS WASHER	PRESSURE WASHER (FIXED)	$4,410.00	A	162597-2009	7600	019	74	74
92247	2009	HOTSY	992SS-208 WASHER	PRESSURE WASHER (FIXED)	$4,670.00	A	162079-2409	7600	EM1	74	74
92248	2009	HOTSY	992SS-208 WASHER	PRESSURE WASHER (FIXED)	$4,915.00	A	162080-2409	7600	016	74	74
92249	2009	HOTSY	992SS-208 WASHER	PRESSURE WASHER (FIXED)	$4,670.00	A	162078-2409	7600	017	74	74
92250	2009	KARCHER	SPG353037E	PRESSURE WASHER	$3,610.00	A	15755520-161742	7600	016	70	70
92252	2010	WACHS	HPU-750	HYD. POWER UNIT	$13,500.00	A	FS-00001	7600	140	262	262
92280	2014	KARCHER	HD 4.0/50 PB CAGE	PRESSURE WASHER	$3,589.58	A	157520000-160624	7600	140	12	12
13 TOTAL UNITS FOR CLASS 7600 MISC. SHOP EQUIPMENT											
90100	2011	WACHS	TLV-300	TRAILER VAC UNIT	$24,164.99	A	11-2839	7611	017	97	97
90101	2011	WACHS	TLV-300	TRAILER VAC UNIT	$24,164.99	A	11-2840	7611	019	151	151
2 TOTAL UNITS FOR CLASS 7611 TRAIL. MT. VACUUM MACHINE											
91006	1993	SPD T	E600+	EASEMENT MACHINE	$11,337.00	A	10193888189	7613	132	995	995
1 TOTAL UNIT FOR CLASS 7613 EASEMENT MACHINE											
80060	1998	ULHAL	212WB-S	UTILITY TRAILER	$4,750.00	A	1U9UJ2129XW055124	8000	029	131	131
80061	1999	ULHAL	212WB-S	UTILITY TRAILER	$4,850.00	A	1U9FJ2127XW055147	8000	030	131	131
80062	1999	ULHAL	212WB-S	UTILITY TRAILER	$4,850.00	A	1U9FJ2129XW055148	8000	030	131	131
80068	2001	ULHAL	212WB-S	UTILITY TRAILER	$5,100.00	A	1U9UJ2122JW055300	8000	031	131	131
80069	2001	ULHAL	212WB-S	UTILITY TRAILER	$5,100.00	A	1U9UJ21241W055301	8000	017	131	131
80070	2001	ULHAL	212WB-S	UTILITY TRAILER	$5,100.00	A	1U9UJ21281W055303	8000	031	131	131
80071	2001	ULHAL	212WB-S	UTILITY TRAILER	$5,100.00	A	1U9UJ212X1W055304	8000	031	131	131
80072	2001	ULHAL	212WB-S	UTILITY TRAILER	$5,100.00	A	1U9UJ21211W055305	8000	028	131	131
80073	2001	ULHAL	212WB-S	UTILITY TRAILER	$5,100.00	A	1U9UJ21251W055307	8000	029	131	131
80075	2003	ULHAL	172WB-S	UTILITY TRAILER	$6,100.00	A	1U9UJ17213W055339	8000	027	131	131
80076	2003	ULHAL	212WB-S	UTILITY TRAILER	$6,250.00	A	1U9UJ21213W055338	8000	028	131	131
80078	2004	ULHAL	212U-S	UTILITY TRAILER	$7,700.00	O	1U9UJ21274W055362	8000	019	0	0
80079	2004	ULHAL	212U-S	UTILITY TRAILER	$7,700.00	A	1U9UJ21294W055363	8000	030	129	129
80080	2004	ULHAL	212U-S	UTILITY TRAILER	$7,700.00	A	1U9UJ21204W055364	8000	029	129	129
80081	2004	ULHAL	212U-S	UTILITY TRAILER	$7,700.00	A	1U9UJ21224W055365	8000	030	129	129
80082	2004	ULHAL	172U-S	UTILITY TRAILER	$7,550.00	A	1U9UJ17224W055366	8000	030	129	129

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
80084	2006	DCT	118-BT	UTILITY TRAILER	$2,975.00	A	4GBF1824961012689	8000	132	117	117
80087	2010	D&K	DKF-22.5-2	UTILITY TRAILER	$6,250.00	A	1D9FS2221AC150118	8000	019	56	56
80090	2011	D&K	DKF-22-2	UTILITY TRAILER	$6,139.00	A	1D9FS2220BC150134	8000	028	45	45
80092	2014	H&H	SC-12-1	ENCLOSED TRAILER	$4,440.00	A	533SC1217EC237941	8000	233	13	13
81013	2002	P.J.	TD202	TILT TRAILER	$4,676.13	A	4P5TD202421045346	8000	132	131	131
81014	2005	DULFT	TO60TBH	ROLLER TRAILER	$3,343.00	A	1EP3P151451002635	8000	019	116	116
81015	2005	DULFT	TO60TBH	ROLLER TRAILER	$3,343.00	A	1EP3P151651002636	8000	017	116	116
81016	2007	DULFT	TO60TBH	ROLLER TRAILER	$4,207.00	A	1EP3P151071002957	8000	019	97	97
81017	2007	DULFT	TO60TBH	ROLLER TRAILER	$4,207.00	A	1EP3P151271002958	8000	017	97	97
25 TOTAL UNITS FOR CLASS 8000 LIGHT DUTY TRAILER 10000-											
80038	1988	TOWMT	T24	EQUIPMENT TRAILER	$7,245.00	A	2456	8010	132	131	131
80055	1992	TOWMT	T20	EQUIPMENT TRAILER	$8,425.00	A	1P9F20D22NG16217	8010	019	131	131
80058	1996	TOWMT	T24	EQUIPMENT TRAILER	$8,913.00	A	4KNFT212XTL160510	8010	017	131	131
80065	2001	ULHAL	182LP-S	EQUIPMENT TRAILER	$5,200.00	A	1U9UJ18241W055279	8010	016	131	131
80067	2001	ULHAL	212V-S	EQUIPMENT TRAILER	$5,100.00	A	1V9W21201W055294	8010	023	131	131
80074	2002	MCLAD	18TSLMB	EQUIPMENT TRAILER	$4,250.00	A	4UVPF182521003253	8010	019	131	131
80077	2003	MCLAD	18TSLMB	EQUIPMENT TRAILER	$4,250.00	A	4UVPF182X31004657	8010	017	131	131
80083	2006	DCT	18HD-14BT	EQUIPMENT TRAILER	$3,709.00	A	4GBF1827261012253	8010	140	118	118
80085	2006	D&K	DKC-20-2	EQUIPMENT TRAILER	$3,995.00	A	1D9US20205C150105	8010	029	115	115
80086	2008	FELLING	FT-24LP TAG TRAIL	EQUIPMENT TRAILER	$13,208.76	A	5FTDE302891032732	8010	023	83	83
80088	2011	D&K	DKU-21-2	EQUIPMENT TRAILER	$5,985.00	A	1D9US212XBC150019	8010	017	53	53
80089	2011	D&K	DKU-21-2	EQUIPMENT TRAILER	$5,985.00	A	1D9US2128BC150018	8010	019	53	53
81005	1966	MILLR	0T	EQUIPMENT TRAILER	$2,485.00	A	8620	8010	017	131	131
13 TOTAL UNITS FOR CLASS 8010 HEAVY DUTY TRAILER 10001+											
93163	1988	BAKER	PR459SCDAP	SNOW PLOW 10' (CONTRACTOR	$5,871.00	A	2847	9000	016	131	131
93181	1990	BAKER	2PR459SCD	SNOW PLOW 10' (CONTRACTOR	$6,131.00	T	3075	9000	016	131	131
93184	1990	BAKER	2PR459SCD	SNOW PLOW 10' (CONTRACTOR	$6,131.00	A	3077	9000	016	131	131
93209	1996	BAKER	PR459UB	SNOW PLOW 10' (CONTRACTOR	$7,587.92	T	(WC) 9004	9000	016	131	131
93225	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$6,375.00	A	3906	9000	016	131	131
93226	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$6,375.00	A	3907	9000	016	131	131
93227	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$5,250.00	A	3909	9000	016	131	131
93228	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$5,250.00	A	3910	9000	016	131	131
93229	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$5,250.00	A	3908	9000	016	131	131
93230	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$5,250.00	A	4015	9000	016	131	131
93231	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$5,250.00	A	4001	9000	016	131	131
93232	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$5,250.00	A	4000	9000	016	131	131
93233	2000	BAKER	PR459S	SNOW PLOW 10' (CONTRACTOR	$6,375.00	A	3999	9000	016	131	131
93234	2000	BAKER	PR459S	SNOW PLOW 10' SPARE	$6,375.00	A	3911	9000	016	131	131
93238	2001	MONRO	38R10ISTEFL	SNOW PLOW 10'	$6,045.00	A	00-10-2110	9000	019	131	131
93239	2001	MONRO	38R10ISTEFL	SNOW PLOW 10'	$6,045.00	A	00-10-2115	9000	019	131	131
93240	2001	MONRO	38R10ISTEFL	SNOW PLOW 10'	$6,045.00	A	00-10-2107	9000	016	131	131
93241	2001	MONRO	38R10ISTEFL	SNOW PLOW 10'	$6,045.00	A	00-10-2108	9000	016	131	131
93247	2002	MONRO	38R10ISTEFL	SNOW PLOW 10'	$4,525.00	A	02-06-1212	9000	016	131	131
93248	2002	MONRO	38R10ISTEFL	SNOW PLOW 10'	$4,525.00	A	02-06-1210	9000	017	131	131
93249	2002	MONRO	38R10ISTEFL	SNOW PLOW 10'	$4,525.00	A	02-06-1207	9000	017	131	131
93250	2002	MONRO	38R10ISTEFL	SNOW PLOW 10'	$4,525.00	A	02-06-1208	9000	016	131	131

CITY OF LINCOLN
FLEET SERVICES
LIST OF UNITS BY MULTIPLE PARAMETERS

UNIT	YEAR	MAKE	MODEL	DESCRIPTION		PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
93251	2002	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,525.00	A	02-06-1209	9000	023	131	131
93252	2002	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,525.00	A	02-06-1211	9000	017	131	131
93260	2003	MONRO	38R10ISTEFL	SNOW PLOW 10'	CITY TRACTO	$4,087.50	A	03-06-1324	9000	017	131	131
93261	2003	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,087.50	A	03-06-1325	9000	016	131	131
93262	2003	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,087.50	A	03-06-1326	9000	017	131	131
93263	2003	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,087.50	A	03-06-1327	9000	019	131	131
93264	2003	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,087.50	A	03-06-1328	9000	019	131	131
93265	2003	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,087.50	A	03-06-1329	9000	017	131	131
93274	2005	MONRO	38R10ISTEFL	SNOW PLOW 10'	CITY TRACTO	$6,403.00	A	04-10-1665	9000	017	129	129
93275	2005	MONRO	38R10ISTEFL	SNOW PLOW 10'	CITY TRACTO	$6,403.00	A	04-10-1666	9000	019	129	129
93276	2005	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,564.00	A	04-10-1667	9000	016	129	129
93283	2005	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,564.00	A	04-11-1705	9000	016	126	126
93284	2005	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,564.00	A	04-11-1706	9000	017	126	126
93285	2005	MONRO	38R10ISTEFL	SNOW PLOW 10'		$4,564.00	A	04-11-1707	9000	017	126	126
93291	2006	BAKER	2PR559S	SNOW PLOW 10'	CITY TRACTO	$6,400.00	A	174	9000	019	116	116
93292	2006	BAKER	2PR559S	SNOW PLOW 10'	CITY TRACTO	$6,400.00	A	175	9000	017	116	116
93293	2006	BAKER	2PR559S	SNOW PLOW 10'		$4,699.00	A	176	9000	017	116	116
93294	2006	BAKER	2PR559S	SNOW PLOW 10'		$4,699.00	A	177	9000	019	116	116
93295	2006	BAKER	2PR559S	SNOW PLOW 10'		$4,699.00	A	178	9000	017	116	116
93299	2006	BAKER	2PR559S	SNOW PLOW 10'		$4,699.00	A	197	9000	019	113	113
93300	2006	BAKER	2PR559S	SNOW PLOW 10'		$4,699.00	A	198	9000	017	113	113
93301	2006	BAKER	2PR559S	SNOW PLOW 10'		$4,699.00	A	199	9000	019	113	113
93307	2007	HENKE	36R10IS-CTE3	SNOW PLOW 10'		$5,654.00	A	10882	9000	019	99	99
93308	2007	HENKE	36R10IS-CTE3	SNOW PLOW 10'		$5,654.00	A	10883	9000	016	99	99
93309	2007	HENKE	36R10IS-CTE3	SNOW PLOW 10'		$5,654.00	A	10884	9000	017	99	99
93329	2008	HENKE	36R10IS-CTE3 PLOW	SNOW PLOW 10'		$6,694.00	A	12733	9000	019	78	78
93330	2008	HENKE	36R10IS-CTE3 PLOW	SNOW PLOW 10'		$6,694.00	A	12734	9000	019	78	78
93331	2008	HENKE	36R10IS-CTE3 PLOW	SNOW PLOW 10'		$6,694.00	A	12735	9000	019	78	78
93332	2008	HENKE	36R10IS-CTE3 PLOW	SNOW PLOW 10'		$8,417.00	A	12729	9000	016	78	78
93333	2008	HENKE	36R10IS-CTE3 PLOW	SNOW PLOW 10'		$8,417.00	A	12730	9000	017	78	78
93334	2008	HENKE	36R10IS-CTE3 PLOW	SNOW PLOW 10'	SPARE	$6,694.00	A	12731	9000	016	78	78
93335	2008	HENKE	36R10IS-CTE3 PLOW	SNOW PLOW 10'		$6,694.00	A	12732	9000	019	78	78
93341	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,558.00	A	13886	9000	019	66	66
93342	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,558.00	A	13887	9000	016	66	66
93343	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,558.00	A	13888	9000	016	66	66
93344	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,558.00	A	13889	9000	016	66	66
93345	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,558.00	A	13890	9000	019	66	66
93346	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,558.00	A	13891	9000	019	66	66
93347	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,558.00	A	13892	9000	016	66	66
93348	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'	(CONTRACTOR	$6,558.00	A	13893	9000	016	66	66
93349	2009	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,558.00	A	13894	9000	016	66	66
93353	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15491	9000	017	48	48
93354	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15492	9000	016	48	48
93355	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15493	9000	017	48	48
93356	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15494	9000	016	48	48
93368	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15977	9000	023	34	34
93369	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15978	9000	016	34	34
93370	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15979	9000	019	34	34
93371	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15980	9000	019	34	34
93372	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10'		$6,698.00	A	15981	9000	016	44	44

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
93373	2011	HENKE	36R10IS-CTE2	SNOW PLOW 10' CITY TRACTO	$6,698.00	A	15982	9000	016	44	44
93377	2012	HENKE	36R10IS-CTE2	SNOW PLOW 10' CITY TRACTO	$7,178.00	A	17079	9000	019	32	32
93378	2012	HENKE	36R10IS-CTE2	SNOW PLOW 10' CITY TRACTO	$7,178.00	A	17080	9000	016	32	32
93389	2014	HENKE	36R10IS-CTE2	SNOW PLOW 10' (CONTRACTOR	$9,280.67	A	19086	9000	016	11	11
93390	2014	HENKE	36R10IS-CTE2	SNOW PLOW 10' (CONTRACTOR	$9,280.67	A	19087	9000	016	11	11
93391	2014	HENKE	36R10IS-CTE2	SNOW PLOW 10' (CONTRACTOR	$9,280.66	A	19088	9000	016	11	11
93397	2015	HENKE	36R10IS-CTE2	SNOW PLOW 10' SPARE	$8,085.00	A	19759	9000	016	6	6
93398	2015	HENKE	36R10IS-CTE2	SNOW PLOW 10' SPARE	$8,085.00	A	19760	9000	019	6	6
80 TOTAL UNITS FOR CLASS 9000 10 FT. SNOWPLOW											
93339	2009	MONROE	MF-5	SNOW PLOW 10' UNDERBODY	$4,610.00	A	09-12-53235148400	9001	019	68	68
93361	2011	MONROE	MS-3511	SNOW PLOW 11' UNDERBODY	$10,815.00	A	11-08-5158	9001	017	45	45
93362	2011	MONROE	MS-3511	SNOW PLOW 11' UNDERBODY	$10,815.00	A	11-08-5160	9001	016	45	45
93363	2011	MONROE	MS-3511	SNOW PLOW 11' UNDERBODY	$10,815.00	A	11-08-5157	9001	017	45	45
93364	2011	MONROE	MS-3511	SNOW PLOW 11' UNDERBODY	$10,815.00	A	11-08-5159	9001	016	45	45
93379	2012	MONROE	MS-3511	SNOW PLOW 11' UNDERBODY	$11,416.00	A	12-10-5176	9001	019	31	31
93381	2012	MONROE	MS-3511	SNOW PLOW 11' UNDERBODY	$11,416.00	A	12-10-5174	9001	016	31	31
93382	2012	MONROE	MS-3511	SNOW PLOW 11' UNDERBODY	$11,416.00	A	12-10-5175	9001	019	31	31
8 TOTAL UNITS FOR CLASS 9001 UNDERBODY SCRAPER											
93365	2011	MONROE	9JRWMB-TE	SNOW PLOW 9' WING	$11,050.00	A	11-08-5338	9002	017	45	45
93366	2011	MONROE	9JRWMB-TE	SNOW PLOW 9' WING	$11,050.00	A	11-08-5339	9002	016	45	45
93380	2012	MONROE	9JRWMB-TE	SNOW PLOW 9' WING	$10,499.00	A	12-10-6392	9002	019	31	31
3 TOTAL UNITS FOR CLASS 9002 WING PLOW											
93367	2011	RYLIND	SD8-PL20	DOZER BLADE 8'	$5,954.00	A	R3711	9003	016	45	45
93386	2013	HENKE	DB8	DOZER BLADE 8'	$5,285.00	A	17976	9003	017	22	22
93387	2013	HENKE	DB8	DOZER BLADE 8'	$5,285.00	A	17977	9003	019	22	22
3 TOTAL UNITS FOR CLASS 9003 DOZER BLADE											
93273	2004	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$4,890.00	O	74329	9010	019	120	120
93287	2005	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$5,408.95	A	76137	9010	017	122	122
93288	2005	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$4,710.00	A	87091	9010	031	119	119
93289	2005	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$4,710.00	A	86922	9010	132	119	119
93306	2007	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$6,300.00	A	90629	9010	016	109	109
93315	2008	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$4,835.00	A	96672	9010	016	91	91
93316	2008	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$4,835.00	A	96671	9010	017	91	91
93317	2008	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$4,835.00	A	96666	9010	019	91	91
93326	2008	BOSS	9' MSC POLY V-PLO	SNOW PLOW 9' V	$7,250.00	A	103553	9010	019	80	80
93383	2013	BOSS	9' POLY V-PLOW XT	SNOW PLOW 9' V	$5,565.00	A	184298	9010	023	30	30
93392	2014	BOSS	9' POLY V-PLOW XT	SNOW PLOW 9' V CITY TRACT	$4,400.00	A	210526	9010	016	11	11
11 TOTAL UNITS FOR CLASS 9010 8 FT./9 FT. SNOWPLOW											
93268	2004	ARIEN	ST1332DLE	WALK BEHIND SNOW BLOWER	$2,272.00	A	004804	9050	037	131	131
93269	2004	ARIEN	ST1332DLE	WALK BEHIND SNOW BLOWER	$2,272.00	A	004808	9050	037	131	131

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
93318	2008	ARIENS	926502 (936PB) BR	WALK BEHIND SNOW BROOM	$3,053.65	A	001561	9050	037	81	81
93319	2008	ARIENS	926502 (936PB) BR	WALK BEHIND SNOW BROOM	$3,053.65	A	001609	9050	028	81	81
	4	TOTAL UNITS FOR CLASS 9050 HAND SNOWBLOWER									
93236	2001	HENDERSON	FSH10SS	MATERIAL SPREADER 10'	$8,703.00	A	21519	9100	016	131	131
93237	2001	HENDERSON	FSH12SS	MATERIAL SPREADER 12'	$9,299.00	A	21520	9100	016	131	131
93253	2002	HENDERSON	FSHX13X409SS	MATERIAL SPREADER 13'	$9,592.00	A	22003	9100	017	131	131
93266	2003	HENDERSON	FSHX13X409SS	MATERIAL SPREADER 13'	$9,785.00	A	22407	9100	019	131	131
93267	2003	HENDERSON	FSHX13X409SS	MATERIAL SPREADER 13'	$9,785.00	A	22408	9100	017	131	131
93286	2005	HENDERSON	FSHX13X409SS	MATERIAL SPREADER 13'	$11,753.00	A	23728	9100	016	124	124
93302	2006	HENDERSON	FSH13409SSGC	MATERIAL SPREADER 13'	$10,101.00	A	24758	9100	017	111	111
93303	2006	HENDERSON	FSH13409SSGC	MATERIAL SPREADER 13'	$10,101.00	A	24759	9100	019	111	111
93304	2006	HENDERSON	FSH10409SSGC	MATERIAL SPREADER 10'	$8,832.00	A	24756	9100	017	111	111
93305	2006	HENDERSON	FSH10409SSGC	MATERIAL SPREADER 10'	$8,832.00	A	24757	9100	016	111	111
93310	2007	HENDERSON	FSH13409SSGC	MATERIAL SPREADER 13'	$10,606.00	A	25444	9100	016	99	99
93336	2009	HENDERSON	FSH13409SSGC	MATERIAL SPREADER 13'	$15,064.00	A	26869	9100	019	76	76
93337	2009	HENDERSON	FSH13409SSGC	MATERIAL SPREADER 13'	$15,064.00	A	26870	9100	019	76	76
93338	2009	HENDERSON	FSH13409SSCG	MATERIAL SPREADER 13'	$15,064.00	A	26871	9100	019	76	76
93350	2010	MONROE	MD-108-50-38	MATERIAL SPREADER 9'	$6,600.00	A	10-03-7979	9100	031	63	63
93357	2011	HENDERSON	FSHX13X50-DAX409	MATERIAL SPREADER 13'	$17,035.00	A	29057	9100	017	47	47
93358	2011	HENDERSON	FSHX13X50-DAX409	MATERIAL SPREADER 13'	$17,035.00	A	29058	9100	016	47	47
93359	2011	HENDERSON	FSHX13X50-DAX409	MATERIAL SPREADER 13'	$17,035.00	A	29060	9100	017	47	47
93360	2011	HENDERSON	FSHX13X50-DAX409	MATERIAL SPREADER 13'	$17,035.00	A	29059	9100	016	47	47
93374	2012	HENDERSON	FSHX13X50-DAX409	MATERIAL SPREADER 13'	$17,035.00	A	29476	9100	016	40	40
	20	TOTAL UNITS FOR CLASS 9100 MATERIAL SPREADER									
93223	1999	CMTEC	1MS210DSS70L	LIQUID UNIT 900 GALLON	$15,401.00	A	N/A	9101	016	131	131
93224	1999	CMTEC	1MS210DSS70L	LIQUID UNIT 900 GALLON	$15,401.00	A	N/A	9101	016	131	131
93272	2004	CMTEC	AC1850AG	LIQUID UNIT 1850 GALLON	$15,756.00	A	N/A	9101	016	131	131
93311	2008	CMTEC	AC1850AG	LIQUID UNIT 1850 GALLON	$19,906.75	A	N/A	9101	017	91	91
93312	2008	CMTEC	AC1850AG	LIQUID UNIT 1850 GALLON	$19,906.75	A	N/A	9101	017	91	91
93313	2008	CMTEC	AC1850AG	LIQUID UNIT 1850 GALLON	$19,906.75	A	N/A	9101	019	91	91
93314	2008	CMTEC	AC1850AG	LIQUID UNIT 1850 GALLON	$19,960.75	A	N/A	9101	019	91	91
93340	2009	MONROE	3250 GALLON	LIQUID UNIT 3250 GALLON	$29,251.00	A	09-12-9908	9101	016	68	68
93393	2014	HENDERSON	LAS-X-1800	LIQUID UNIT 1800 GALLON	$13,873.00	A	LAS-00853	9101	019	9	9
93394	2014	HENDERSON	LAS-X-1800	LIQUID UNIT 1800 GALLON	$13,873.00	A	LAS-00854	9101	019	9	9
	10	TOTAL UNITS FOR CLASS 9101 LIQUID APPLICATOR									
92060	1983	IGRAD	160	PORTABLE AIR COMPRESSOR	$8,250.00	A	133556V83179	9200	023	3,121	3,121
92067	1985	LEROI	Q185DJE	PORTABLE AIR COMPRESSOR	$9,883.00	A	3133X42	9200	017	1,716	1,716
92148	1988	SULAR	185DPQ	PORTABLE AIR COMPRESSOR	$9,901.00	A	004-96441	9200	019	3,023	3,023
92149	1988	SULAR	185DPQ	PORTABLE AIR COMPRESSOR	$9,901.00	A	004-96454	9200	019	3,210	3,210
92150	1988	SULAR	185DPQ	PORTABLE AIR COMPRESSOR	$9,901.00	A	004-96455	9200	017	3,110	3,110
92179	1995	LEROI	Q185DJE	PORTABLE AIR COMPRESSOR	$10,925.00	A	3272X995	9200	140	1,877	1,877
92185	1997	INGRD	P185WJD	PORTABLE AIR COMPRESSOR	$12,015.00	A	267139UGG327	9200	140	1,392	1,392
92186	1997	INGRD	P185WJD	PORTABLE AIR COMPRESSOR	$11,490.00	A	267138UGG327	9200	132	321	321
92190	1998	INGRD	P185WJD	PORTABLE AIR COMPRESSOR	$11,760.00	A	293657UHI221	9200	140	464	464

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
92191	1999	SULVN	DO185Q6JD	AIR COMPRESSOR	$11,010.00	A	18683A	9200	016	561	561
92235	2005	SULVN	D185Q10JD	PORTABLE AIR COMPRESSOR	$14,635.00	A	25020	9200	140	647	647
	11	TOTAL UNITS FOR CLASS 9200 PORTABLE AIRCOMPRESSOR									
90096	2010	KMI	1009178T2	ASPHALT RECYCLER 2TON	$57,250.00	A	1K9BU2020AN246178	9300	017	798	798
90097	2010	KMI	1009178T2	ASPHALT RECYCLER 2TON	$57,250.00	A	1K9BU2022AN246179	9300	019	651	651
	2	TOTAL UNITS FOR CLASS 9300 ASPHALT RECYCLER									
21030	1993	GMC	C31003	DUMP TRUCK 2 YD.	$16,323.50	A	1GDJC34K7PE545887	9903	113	1	0
	1	TOTAL UNIT FOR CLASS 9903 MISC. POLICE FLEET									
21031	1994	FORD	F350	S WATER TANK TRUCK	$26,419.30	C	1FDKF37H4REA37486	9915	030	75,163	75,524
21052	2002	FORD	F350	S UTILITY TRUCK W/CRANE	$45,259.00	C	1FDWX36S12EC19731	9915	144	143,464	144,432
22003	1996	CHEVY	CC31403	S WATER TANK TRUCK	$36,534.77	C	1GBKC34JXTJ107709	9915	037	126,060	126,388
22007	1998	CHEVY	CC31003 4X4	WATER TANK TRUCK	$30,059.40	C	1GBJK34F8WF065669	9915	028	60,291	60,291
22013	2005	FORD	F450	S UTILITY TRUCK W/CRANE	$56,268.00	C	1FDXW46Y65EC86251	9915	140	93,182	93,427
23010	1974	FORD	F600	PLATFORM TRUCK	$5,939.95	C	F61BCB25188	9915	031	1	1
24052	1986	FORD	F8000	VAC TRUCK	$30,237.72	C	1FDPKB7U9GVA49917	9915	132	44,855	44,855
24061	1988	FORD	F800	LIQUID TRUCK 900 GALLON	$36,338.58	C	1FDXKB4A3JVA46349	9915	016	8,604	8,604
24072	1991	FORD	F800	LIQUID TRUCK 900 GALLON	$40,194.00	C	1FDXK84AXMVA26216	9915	016	74,270	74,270
24077	1993	FORD	F800	DUMP TRUCK 5 YD.	$42,757.65	C	1FDXK84E8PVA27310	9915	131	63,089	63,089
25016	1991	FORD	LNT8000	LIQUID TRUCK 3250 GALLON	$50,886.33	C	1FDZW82A7MVA06571	9915	016	84,980	184,980
25024	1995	FORD	LT8000	DUMP TRUCK 10 YD.	$58,036.95	C	1FDYU82E4SVA50058	9915	131	51,391	51,391
25030	1998	IHC	4900 6X4	DUMP TRUCK 10 YD.	$65,307.91	C	1HTSHAAR8WH504863	9915	131	50,295	50,449
25032	2000	IHC	4900 6X4	DUMP TRUCK 10 YD.	$72,275.50	C	1HTSHAAR5YH233778	9915	019	94,726	94,726
25033	2000	IHC	4900 6X4	DUMP TRUCK 10 YD.	$72,275.50	C	1HTSHAAR3YH233780	9915	019	130,322	130,913
25037	2001	STERL	LT7500 6X4	DUMP TRUCK 10 YD.	$74,646.54	C	2FZHATAK61AH69244	9915	131	39,986	40,098
25041	2003	IHC	7400 SBA 6X4	DUMP TRUCK 10 YD.	$76,825.00	C	1HTWGAAR13J062338	9915	016	120,742	120,907
40080	1989	CASE	485	TRACTOR UTILITY	$10,559.00	C	B480017B024624	9915	030	3,421	3,421
50036	1992	GEHL	SL 5625	LOADER SKID STEER	$15,485.00	C	8273	9915	133	1,556	1,556
50076	1997	CASE	621-B	LOADER WHEEL	$5,000.00	C	JEE0054448	9915	132	9,646	9,646
52023	1991	OLATH	54HL	TURF SWEEPER	$9,717.00	C	540583 TDL	9915	030	0	0
53135	1990	TORO	30788		$15,638.00	C	00129	9915	131	3,231	3,231
53146	1992	TORO	GM345	ROTARY MOWER 72	$15,047.00	C	30789-20280	9915	029	0	0
53171	1997	JACOB	HR-15	ROTARY MOWER 15'	$40,416.00	C	70521-2170	9915	030	4,149	4,149
53172	1998	TORO	223D (30223)	ROTARY MOWER 52	$13,085.00	C	80262	9915	019	1,750	1,750
53195	2000	TORO	GM345(30789)		$21,597.00	C	30789-200000171	9915	133	0	0
53204	2000	TORO	GM345(30789)	ROTARY MOWER 72	$12,248.00	C	30789-200000335	9915	031	818	818
53211	2002	JAC	628 TURFCAT	ROTARY MOWER 72	$18,736.32	C	94671300585	9915	028	1,287	1,296
53227	2004	TORO	GM345(30789)	ROTARY MOWER 72	$12,769.99	C	30789-240000155	9915	019	1,671	1,692
53241	2006	TORO	GM328(30626)	ROTARY MOWER 72	$24,256.11	C	30626-250000455	9915	022	0	1,515
53242	2006	TORO	GM328(30626)	ROTARY MOWER 72	$24,256.11	C	30626-250000456	9915	027	1,478	1,491
80044	1989	OLATH	902	SMALL MOWER TRAILER	$3,365.00	C	109UG65D2JK010158	9915	017	0	0
80046	1989	OLATH	902		$3,365.00	C	109UG65D2JK010160	9915	EM1	0	0
80066	2001	ULHAL	182LP-S	EQUIPMENT TRAILER	$5,200.00	C	1U9UJ18201W055280	9915	111	82	82
93098	1983	BAKER	PR459SAPW	SNOW PLOW 10'	$5,457.00	C	2230	9915	133	131	131
93141	1986	BAKER	PR459SAPW	SNOW PLOW 10' (CONTRACTOR	$3,878.00	C	PL 2706 HTCH 5189	9915	016	131	131

CITY OF LINCOLN
FLEET SERVICES
LIST OF UNITS BY MULTIPLE PARAMETERS

UNIT	YEAR	MAKE	MODEL	DESCRIPTION	PURCHASE AMT	ST	SERIAL NUMBER	CLASS	DOM	METER	USAGE
93143	1986	BAKER	PR459SAPW		$3,878.00	C	PL 2698 HTCH 5179	9915	131	0	0
93149	1986	BAKER	PR459SAPW	SNOW PLOW 10' (CONTRACTOR	$3,878.00	C	PL 2700 HTCH 5213	9915	016	131	131
93210	1996	BAKER	PR459UB	SNOW PLOW 10' (CONTRACTOR	$7,587.92	C	3621	9915	016	131	131
93211	1996	BAKER	PR459UB	SNOW PLOW 10' (CONTRACTOR	$7,587.92	C	3620	9915	016	131	131
93254	2002	HENDERSON	FSHX13X409SS	MATERIAL SPREADER 13'	$9,592.00	C	22004	9915	016	131	131
96234	1997	VERMR	1230	CHIPPER	$18,900.00	C	1VRK15154T1000630	9915	031	4,558	4,558
96328	2004	VERMR	BC1000XL	CHIPPER	$23,961.00	C	1VRY1119241005086	9915	028	3,617	3,632

43 TOTAL UNITS FOR CLASS 9915 CLAIMED VEHICLES/EQUIP.

53257	2007	TORO	GM328(30626)	ROTARY MOWER 72	$18,709.10	S	270000637	9955	113	1,348	1,375

1 TOTAL UNIT FOR CLASS 9955 SURPLUSED EQUIPMENT

1,315,120 YEAR SUM
2005 AVERAGE YEAR

$25,112,291.49 TOTAL PURCHASE AMOUNT
$38,280.93 AVERAGE PURCHASE AMOUNT

656 UNITS FOUND

*** END OF REPORT ZEM160-01 ***

INSURANCE REQUIREMENTS
FOR ALL CITY CONTRACTS

1. GENERAL PROVISIONS

A. **Indemnification.** The Contractor shall indemnify and save harmless the City of Lincoln, Nebraska from and against all losses, claims, damages, and expenses, including attorney's fees, arising out of or resulting from the performance of the contract that results in bodily injury, sickness, disease, death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom and is caused in whole or in part by the Contractor, any subcontractor, any directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. This section will not require the Contractor to indemnify or hold harmless the City of Lincoln for any losses, claims, damages, and expenses arising out of or resulting from the sole negligence of the City of Lincoln, Nebraska.

B. **Approved Coverage Prior to Commencing Work/Subcontractors Included.** Contractor shall purchase and maintain in place insurance to Protect Contractor and City against all liabilities and hazards as provided in this article throughout the duration of the Contract. Contractor shall not commence work under this contract until the Contractor has obtained all insurance required under this Section and such insurance has been approved by the City Attorney for the City of Lincoln, nor shall the Contractor allow any subcontractor to commence work on any subcontract until all similar insurance required of the subcontractor has been so obtained and approved.

C. **Occurrence Basis Coverage.** All insurance shall be provided on an ***occurrence basis*** and not on a claims made basis, except for hazardous materials, errors and omissions, or other coverage not reasonably available on an occurrence basis; provided that all such claims made coverage is subject to the prior written approval of the City Attorney and must be clearly indicated as such in any certificate showing coverage.

D. **Authorized and Rated Insurers Required.** All insurance coverage are to be placed with insurers authorized to do business in the State of Nebraska and must be placed with an insurer that has an A.M. Best's Rating of no less than A:VII unless specific approval has been granted by the City Attorney.

E. **Certificates Showing Coverage.** All certificates of insurance shall be filed with the City Attorney, and may utilize an appropriate standard ACORD Certificate of Insurance form showing the specific limits of insurance coverage required by this Article; provided that restrictions, qualifications or declarations inconsistent with the requirements of this Article shall not relieve the Contractor from providing insurance as required herein. Such certificates shall show the City of Lincoln as additional insured, including by specific endorsement where necessary, as indicated in the following requirements. Such certificate shall specifically state that the related insurance policies are to be endorsed to require the insurer to provide the City of Lincoln thirty days, notice of cancellation, non-renewal or any material reduction in the stated amounts or limits of insurance coverage.

F. **Terminology.** The terms "insurance," "insurance policy," or "coverage" as used in this article are used interchangeably and shall have the same meaning as "insurance" unless the context clearly requires otherwise. References to "ISO®" forms are merely for convenience and ease of reference, and an equivalent or better form as determined acceptable by the City Attorney may be used. (Note: ISO® is a registered trademark of ISO Properties, Inc.)

2. INSURANCE REQUIREMENTS

A. **Scope of Required Coverage**. The Contractor shall take out and maintain during the life of Contract such insurance in the forms and minimum amounts as specified in this Article and as will protect Contractor and City from the following claims arising out of or resulting from or in connection

with the Contractor's operations, undertakings or omissions directly or indirectly related to the Contract, whether by the Contractor or any Subcontractor or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

(1) Claims under workers' compensation, disability benefit, or other employee benefit acts;

(2) Claims arising out of bodily injury, occupational sickness or disease, or death of an employee or any other person;

(3) Claims customarily covered under personal injury liability coverage;

(4) Claims other than to the work itself arising out of an injury to or destruction of tangible property, including the loss of use resulting therefrom;

(5) Claims arising out of ownership, maintenance or use of any motor vehicle;

(6) Railroad protective liability coverage in the event the contract involves work to be performed within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road beds, tunnel, underpass or crossing.

B. **Worker's Compensation Insurance and Employer's Liability Insurance**. The Contractor shall provide applicable statutory Worker's Compensation Insurance with minimum limits as provided below covering all Contractor's employees, and in the case of any subcontracted work, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for Subcontractor's employees.

The Contractor shall provide Employer's Liability Insurance with minimum limits as provided below placed with an insurance company authorized to write such insurance in all states where the Contractor will have employees located in the performance of this contract, and the Contractor shall require each Subcontractor similarly to maintain Employer's Liability Insurance on the Subcontractor's employees.

Coverage	Listing	Min Amt	Notes
Worker's Comp.			
	State	Statutory	
	Applicable Federal	Statutory	
Employer's Liability			
	Bodily Injury by accident	$500,000	each accident
	Bodily Injury by disease	$500,000	each employee
	Bodily Injury	$500,000	policy limit

C. **Commercial General Liability Insurance.**

(1) The Contractor shall provide Commercial General Liability Insurance in a policy form providing no less comprehensive and no more restrictive coverage than provided under the ISO® form CG00010798 or newer with standard exclusions "a" through "o" and with minimum limits as provided below. Any other exclusions that operate to contradict or materially alter the standard exclusions shall be specifically listed on the certificate of insurance and shall be subject to the prior written approval of the City Attorney.

Coverage	Min Amt	Notes
General	$2,000,000	Aggregate
Products and Completed Operations	$2,000,000	Aggregate
Personal and Advertising Injury	$1,000,000	
Each Occurrence	$1,000,000	
Fire Damage Limit	$ 100,000	any one fire
Medical Damage Limit	$ 10,000	any one person

(2) The required Commercial General Liability Insurance shall also include the following:

- Coverage for all premises and operations
- Endorsement to provide the general aggregate per project endorsement
- Personal and advertising injury included
- Operations by independent contractors included
- Contractual liability coverage included
- X.C.U. Coverage including coverage for demolition of any building or structure, collapse, explosion, blasting, excavation and damage to property below the surface of ground.
- Any fellow employee exclusions shall be deleted
- Coverage shall not contain an absolute pollution exclusion, and applicable remaining coverage shall apply for pollution exposures arising from products and completed operations.
- Coverage for products and completed operations maintained for duration of work and shall be maintained for a minimum of three years after final acceptance under the Contract or the warranty period for the same whichever is longer, unless modified in any Special Provisions.
- Contractual Liability coverage shall include contractually assumed defense costs in addition to any policy limits.

(3) If work is to be performed within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road beds, tunnel, underpass or crossing, Railroad Contractual Liability Endorsement (ISO® form CG24170196 or newer).

(4) City may at its sole option, and in lieu of being additional insured on the Contractor's policy, by written requirement in the Special Provisions or by written change order, require Contractor to provide a separate Owner's Protective liability policy. The premium cost to obtain such insurance shall be as paid as provided in the Special Provision or change order, with any related cost savings as reasonably determined by the City being reimbursed or paid to the City.

D. Vehicle liability insurance coverage.

- The Contractor shall provide reasonable insurance coverage for all owned, non-owned, hired and leased vehicles with specific endorsements to include contractual liability coverage and delete any fellow employee exclusion.

- If specifically required in the Special Provisions, the required coverage shall also include an endorsement for auto cargo pollution (ISO® form CA 99 48).

E. Railroad Protective Liability. If work is to be performed within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road beds, tunnel, underpass or crossing or otherwise required by the Special Provisions or applicable requirements of an affected railroad, the Contractor shall provide Railroad Protective Liability Insurance naming the affected railroad/s as insured with

minimum limits for bodily injury and property damage of $2,000,000 per occurrence, $6,000,000 aggregate, or such other limits as required in the Special Provisions or by the affected railroad. The original of the policy shall be furnished to the railroad and a certified copy of the same furnished to the City Attorney's office prior to any related construction or entry upon railroad premises by the Contractor or for work related to the Contract.

F. **Umbrella or Excess Insurance.** The Contractor shall provide Umbrella or Excess insurance coverage with minimum coverage limits of $3,000,000 each occurrence and aggregate.

G. **City included as Insured on Contractor's Policy – Endorsements required.**
The Contractor shall provide adequate written documentation, including applicable ACORD certificates, declarations pages or other acceptable policy information demonstrating that the City is included as an additional insured along with the Contractor with respect to all of the coverages required in this "Section 2A Insurance Requirements," except for applicable Worker's Compensation coverage, to include all work performed for the City and specifically including, but not limited to, any liability caused or contributed to by the act, error, or omission of the Contractor, including any related subcontractors, third parties, agents, employees, officers or assigns of any of them. The documentation or endorsement shall specifically include the city as an additional insured for purposes of Products and Completed Operations. The inclusion of the City as additional insured shall be for coverage only on a primary basis for liability coverage, and no coverage shall contain a policy or other restriction or attempt to provide restricted coverage for the City, whether on an excess, contributory or other basis regardless of any other insurance coverage available to the City.

3. CONTRACTOR'S INDEMNITY – CONTRACTUAL LIABILITY INSURANCE

A. To the same extent as specified for minimum coverage requirements in Section 2 above, the required insurance shall include contractual liability coverage to include indemnification and hold harmless agreements and provisions in the related Contract Documents, specifically including the following provision:

(1) To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless the City, its officers, agents, employees, volunteers and consultants from and against any and all claims, damages, losses, costs, and expenses, including but not limited to attorney's fees and costs arising out of or related to the Contract or the Contractor's activities, errors, or omissions related to the Contract including liabilities or penalties imposed by applicable, law, rule or regulation in connection therewith; provided that such claims, damages, losses, costs, and expenses, including but not limited to attorney's fees and costs:

- is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use therefrom, and

- is caused in whole or in part by any act or omission of the Contractor, any subcontractor, agent, officer, employee, or assigns of the same or by anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in whole or in part by a party indemnified hereunder.

(2) Such indemnification shall not be construed to negate, abridge, limit or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this section.

B. In any and all claims by any employee (whether an employee of the Contractor or subcontractor, or their respective agents or assigns by anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable as an employer) in whole or in part against the City, its officers, agents, employees, volunteers or consultants, the above indemnification shall not be limited in any way by the amount of damages, compensation, benefits or other contributions payable by or on behalf of a the employer under Worker's Compensation statutes, disability benefit acts, or any other employee benefit or payment acts as the case may be.

C. The obligations of indemnification herein shall not include or extend to:

(1) Any outside engineer's or architect's professional errors and omissions involving the approval or furnishing of maps, drawings, opinions, reports, surveys, change orders, designs or specifications within the scope of professional services provided to the City and related to the Contract; and

(2) Any claims arising out of the negligence of the City to the extent the same is the sole and proximate cause of the injury or damage so claimed.

D. In the event of any litigation of any such claims shall be commenced against the City, Contractor shall defend the same at Contractor's sole expense upon notice thereof from the City. Contractor shall notify the insuring company that the City reserves and does not waive any statutory or governmental immunity and neither Contractor, nor Contractor's counsel whether employed by Contractor or by an insurer on behalf of the Contractor shall waive such defenses or enter into any settlement or other disposition requiring waiver of any defenses or immunity of the City without the express written consent of the City.

4. CONTRACTOR'S INSURANCE FOR OTHER LOSSES.

A. Contractor shall assume full responsibility for all loss or damage from any cause whatsoever to any tools owned, rented or used in connection with the Contract including any tools, machinery, equipment, storage devices, containers, sheds, temporary structures, staging structures, scaffolding, fences, forms, braces, jigs, screens, brackets, vehicles and the like owned or rented by Contractor, or Contractor's agents, subcontractors, suppliers, or employees.

B. In connection with the above, Contractor shall cause or require any applicable insurance related to physical damage of the same to provide a waiver of a right of subrogation against the City.

5. NOTIFICATION IN EVENT OF LIABILITY OR DAMAGE.

A. The Contractor shall promptly notify the City in writing and provide a copy of all claims and information presented to any of Contractor's insurance carrier/s upon any loss or claim or upon any occurrence giving rise to any liability or potential liability related to the Contract or related work. The notice to the City shall include pertinent details of the claim or liability and an estimate of damages, names of witnesses, and other pertinent information including the amount of the claim, if any.

B. In the event the City receives a claim or otherwise has actual knowledge of an any loss or claim arising out of the Contract or related work and not otherwise known to or made against the Contractor, the City shall promptly notify the Contractor of the same in writing, including pertinent details of the claim or liability; Provided, however the City shall have no duty to inspect the project to obtain such knowledge, and provided further that the City's obligations, if any, shall not relieve the Contractor of any liability or obligation hereunder.

6. PROPERTY INSURANCE/ BUILDER'S RISK.

A. The Contractor shall provide property insurance (a/k/a Builder's Risk or installation Floater) on all Projects involving construction or installation of buildings or structures and other projects where provided in the Special Provisions. Such insurance shall be provided in the minimum amount of the total contract sum and in addition applicable modifications thereto for the entire work on a replacement cost basis. Such insurance shall be maintained until the City completes final acceptance of the work as provided in the Contract. Such insurance shall be written and endorsed, where applicable, to include the interests of the City, Contractor, Subcontractors, Sub-subcontractors in the related work. The maximum deductible for such insurance shall be $5,000 for each occurrence, which deductible shall be the responsibility of the Contractor. Such insurance shall contain a "permission to occupy" endorsement.

B. All related Property Insurance shall be provided on a "Special Perils" or similar policy form and shall at a minimum insure against perils of fire including extended coverage and physical loss or damage including without limitation or duplication of coverage: flood, earthquake, theft, vandalism, malicious mischief, collapse, and debris removal, including demolition whether occasioned by the loss or by enforcement of applicable legal or safety requirements including compensation or costs for City's related costs and expenses (as owner) including labor required as a result of such loss.

C. All related Property Insurance shall include coverage for falsework, temporary buildings, work stored off-site or in-transit to the site, whether in whole or in part. Coverage for work off-site or in-transit shall be a minimum of 10% of the amount of the policy.

D. The Contractor's Property Insurance shall be primary coverage for any insured loss related to or arising out of the Contract and shall not be reduced by or coordinated with separate property insurance maintained by the City.

Approved by City Law Department, April 1, 2005

INSTRUCTIONS TO PROPOSERS
CITY OF LINCOLN, NEBRASKA
PURCHASING DIVISION

1. PROPOSAL PROCEDURE

1.1 All responses to electronic RFP's will be completed as outlined in this document and the specifications using a two step process.
A) Proposers shall respond electronically to all attributes and addendums as required.
B) All written responses and information shall be mailed or delivered to the office of the Purchasing Division as outlined in the specifications.

1.2 Proposer shall submit complete sets of the RFP documents and all supporting material as indicated in the specifications. Any interlineation, alteration or erasure on the specification document shall be initialed by the proposer. Proposer shall not change the proposal form nor make additional stipulations on the specification document. Any amplified or qualifying information shall be on the proposer's letterhead and firmly attached to the response/offer document.

1.3 Proposed prices shall be submitted on company letterhead with the proposal if the specifications indicate that price will be evaluated as part of the award criteria.

1.4 Failure to complete the electronic and written portions of the RFP may cause the proposal to be rejected.

1.5 Response by a firm / organization other than a corporation must include the name and address of each member.

1.6 A response by a corporation must be signed in the name of such corporation by a duly authorized official thereof.

1.7 Any person signing a response for a firm, corporation, or other organization must show evidence of his authority so to bind such firm, corporation, or organization.

1.8 Proposals received after the time and date established for receiving offers will be rejected.

2. EQUAL OPPORTUNITY

2.1 Each proposer agrees that it shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, disability, national origin, age, or marital status. In the employment of persons, proposer shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to race, color, religion, sex, disability, national origin, age, or marital status.

3. DATA PRIVACY

3.1 Proposer agrees to abide by all applicable State and Federal laws and regulations concerning the handling and disclosure of private and confidential information concerning individuals and corporations as to inventions, copyrights, patents and patent rights.

3.2 The proposer agrees to hold the City harmless from any claims resulting from the proposer's unlawful disclosure or use of private or confidential information.

3.3 Proposer agrees to comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and implementing regulations pertaining to confidentiality of heath information.
1. If applicable to the work requested a sample "Business Associate Contract" will be included, which will be part of the contract and incorporated by this reference.

4. PROPOSER'S REPRESENTATION

4.1 Each proposer by signing and submitting an offer, represents that he/she has read and understands the proposal documents, and the offer has been made in accordance therewith.

4.2 Each offer represents the proposer is familiar with the local conditions under which the work will take place and has correlated observations with the RFP requirements

5. INDEPENDENT PRICE DETERMINATION

5.1 By signing and submitting this RFP, the proposer certifies that the prices offered have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, with any other proposer competitor; unless otherwise required by law, the prices which have been quoted in this offer have not been knowingly disclosed by the proposer prior to RFP opening directly or indirectly to any other competitor; no attempt has been made, or will be made, by the proposer to induce any person or firm to submit, or not to submit, a response for the purpose of restricting competition.

6. SPECIFICATION CLARIFICATION

6.1 Proposers shall promptly notify the Purchasing Agent of any ambiguity, inconsistency or error which they may discover upon examination of specification documents.

6.2 Proposers desiring clarification or interpretation of the specification documents shall make a written request which must reach the Purchasing Agent at least seven (7) calendar days prior to date and time for response receipt.

6.3 Interpretations, corrections and changes made to the specification documents will be made by electronic addenda.

6.4 Oral interpretations/changes to Specification Documents made in any other manner than written form, will not be binding on the City; proposers shall not rely upon oral interpretations.

7. ADDENDA

7.1 Addenda are instruments issued by the City prior to the date for receipt of offers which modify or interpret the specification document by addition, deletion, clarification or correction.

7.2 Changes made to the specification documents will be made by electronic addenda to all bidders via e-mail notice.

7.3 No addendum will be issued later than forty-eight (48) hours prior to the date and time for receipt of offers, except an addendum withdrawing the RFP, or addendum including postponement.

7.4 Proposers shall verify addendum receipt electronically prior to bid closing or RFP may be rejected.

8. ANTI-LOBBYING PROVISION

8.1 During the period between the advertised date and the contract award, bidders, including their agents and representatives, shall not directly discuss or promote their proposal with any member of the City Council or City Staff except in the course of City-sponsored inquiries, briefings, interviews, or presentations, unless requested by the City.

9. SITE VISITATION

9.1 Proposers shall inform themselves of the conditions under which work is to be performed, including: site of work, the structures or obstacles which may be encountered and all other relevant matters concerning work performance.

9.2 The proposer will not be allowed any extra compensation by or for any condition which he/she might fully have informed themselves of prior to submitting the offer.

10. EVALUATION AND AWARD

10.1 The signed proposal shall be considered an offer on the part of the proposer. Such offer shall be deemed accepted upon issuance by the City of purchase orders, contract award notifications, or other contract documents appropriate to the work.

10.2 No offer shall be withdrawn for a period of ninety (90) calendar days after the time/ date established for receiving offers, and each proposer agrees in submitting an offer.

10.3 **Fee envelopes MAY be opened** and evaluated as part of the criteria for ranking interested proposers.

10.4 The RFP process is designed to be a competitive negotiation platform, where price is not required to be the sole determinative factor; also the City has the flexibility to negotiate with a select firm or selected firms to arrive at a mutually agreeable relationship.

10.5 A committee will be assigned the task of reviewing the proposals received.

1. The committee may request documentation from Proposer(s) of any information provided in their proposal response, or require the Proposer to clarify or expand qualification statements.
2. The committee may also require a site visit and/or verbal interview with a Proposer or select group of Proposers to clarify and expand upon the proposal response.

10.6 The RFP will be awarded to the most responsible proposer whose proposal will be most advantageous to the City, and deemed to best serve City requirements.

10.7 The City reserves the right to accept or reject any or all offers, parts of offers; request rebids; waive irregularities and technicalities in offers; such as shall best serve the requirements and interests of the City.

11. TERMINATION/ASSIGNMENT

11.1 The City may terminate the Contract if the Contractor:

1. Refuses or fails to supply enough properly skilled workers or proper equipment to satisfactorily provide/ complete the work as requested.
2. Disregards laws, ordinances, or regulations or orders of a public authority having jurisdiction over the Contract.
3. Otherwise commits a substantial breach of any provision of the Contract Document.

11.2 *By mutual agreement both parties of the contract agreement,* upon receipt and acceptance of not less than a thirty (30) calendar days written notice, the contract may be terminated on an agreed upon date, prior to the end of the contract period, without penalty to either party.

1. Upon any such termination, the Contractor agrees to waive any claims for damages, including loss of anticipated profits, on account thereof, and as the sole right and remedy of the Contractor, the City shall pay Contractor in accordance with this section.
2. Upon such termination, the obligations of the Contract shall continue as to options of the work already performed and as to bona fide obligations the Contractor assumed prior to the date of termination.

11.3 In the event of any proceedings by or against either party, voluntary or involuntary, in bankruptcy or insolvency, or for the appointment of a receiver or trustee for the benefit of creditors, of the property of the Contractor, the City may cancel this contract or affirm the contract and hold the Contractor responsible for damages.

11.4 The contract established as a result of this RFP process shall not be transferred to/or assigned without prior written consent of the City.

12. INDEMNIFICATION

12.1 The proposer shall indemnify and hold harmless the City, its members, its officers and employees from and against all claims, damages, losses, and expenses, including, but not limited to attorney's fees arising out of or resulting from the performance of the contract, provided that any such claim, damage, los or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property other than goods, materials and equipment furnished under this contract, including the loss of use resulting therefrom; is caused in whole or in part by any one of them or anyone for whose acts made by any one of them or anyone for whose acts made by any of them may be liable, regardless of whether or not it is caused by a party indemnified hereunder.

12.2 In any and all claims against the City or any of its members, officers or employees by an employee of the proposer, any subcontractor, anyone directly or indirectly employed by any of them or by anyone for whose acts made by any of them may be liable, the indemnification obligation under paragraph 9.1 shall not be limited in any way by any limitation of the amount or type of damages, compensation or benefits payable by or for the proposer or any subcontractor under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.

13. TERMS OF PAYMENT

13.1 Unless other specification provisions state otherwise, payment in full will be made by the City within thirty (30) calendar days after all labor has been performed and all equipment or other merchandise has been delivered, and all such labor and equipment and other materials have met all contract specifications.

14. LAWS

14.1 The Laws of the State of Nebraska shall govern the rights, obligations, and remedies of the Parties under this proposal and any agreement reached as a result of this process.

15. LIVING WAGE

15.1 The bidders agree to pay all employees employed in the performance of this contract, a base wage of not less than the City Living Wage per Section 2.81 of the Lincoln Municipal Code. This wage is subject to change every July.

16. AFFIRMATIVE ACTION

16.1 The City of Lincoln-Lancaster County Purchasing Division provides equal opportunity for all bidders and encourages minority businesses and women's business enterprises to participate in our bidding process.

17. TAXES AND TAX EXEMPT CERTIFICATE

17.1 The City is generally exempt from any taxes imposed by the State or Federal Government. A Tax Exemption Certificate will be provided as applicable.

17.2 The Water Division of the City of Lincoln is taxable per Reg. 066.14A and no exemption certificate will be issued.

18. CITY AUDIT ADVISORY BOARD

18.1 All parties of any City agreement shall be subject to audit pursuant to Chapter 4.66 of the Lincoln Municipal Code and shall make available to a contract auditor, as defined therein, copies of all financial and performance related records and materials germane to the contract/purchase order, as allowed by law.

19. E-VERIFY

19.1 In accordance with Neb. Rev. Stat. 4-108 through 4-114, the contractor agrees to register with and use a federal immigration verification system, to determine the work eligibility status of new employees performing services within the state of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324 a, otherwise known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee pursuant to the Immigration Reform and Control Act of 1986. The Contractor shall not discriminate against any employee or applicant for employment to be employed in the performance of this section pursuant to the requirements of state law and 8 U.S.C.A 1324b. The contractor shall require any subcontractor to comply with the provisions of this section. For information on the E-Verify Program, go to www.uscis.gov/everify.