

**VILLAGE OF HINSDALE
ENVIRONMENT AND PUBLIC SERVICES COMMITTEE MINUTES
MONDAY, DECEMBER 09, 2013**

Chairman Laura LaPlaca called the meeting of the Environment and Public Services Committee to order at 7:38 P.M., Monday December 09, 2013, in Memorial Hall of the Memorial Building, 19 East Chicago Avenue, Hinsdale, IL.

PRESENT: Chairman Laura LaPlaca, Trustee William Haarlow, Trustee Gerald Hughes, Trustee Bob Saigh

ABSENT: none

ALSO PRESENT: Kathleen Gargano, Village Manager; George Franco, Director of Public Services; Tom Bueser, Deputy Director of Public Services.

Approval of Minutes – November 11, 2013

The EPS Committee reviewed the minutes from the November 11, 2013 meeting. Trustee Hughes recommended a clarification to the minutes. Trustee Saigh motioned for approval of the revised November 11, 2013 minutes. Trustee Haarlow seconded. The motion passed unanimously.

Public Services Monthly Report

Mr. Franco updated the Committee on Public Services activities including the completion of holiday decorations in the Business District for the annual Christmas Walk, upcoming snow removal in the Business District, preparations for the construction of the Burns Field ice rink, and the inability to wrap the decorative street light poles in the Business District with lights due to the amount of power being used for the tree lighting. Trustee Saigh inquired regarding the ability to gain more exposure for Holiday recycling. Mr. Franco commented that staff will look at options to place information in the Hinsdalean newspaper. Chairman LaPlaca complemented the department on their diligence in responding to the water main break on S. Madison during this cold weather and their efficient snow removal on the Village streets after the first snowfall of the year.

Engineering Monthly Report

Mr. Deeter updated the Committee on engineering activities. 2013 construction has been completed and 2014/15 planning and design efforts are underway. Various construction and engineering companies have mentioned that they are seeing an increase in construction bidding & proposal activity for 2014. With more competition for engineering/construction services, this could increase the cost of construction for the

Village. Staff recommended blocks to be resurfaced as part of the 2014 Maintenance Project. The committee also approved adding these blocks to the 2014 Reconstruction and Resurfacing projects to try to achieve some lower pricing through economies of scale. Staff will also send out Requests for Proposals for engineering services for the 2015 Reconstruction and Resurfacing Projects. Routinely, the design services are conducted a year ahead of the construction. Mr. Deeter also reviewed the 2013 project change order field records and the Oak Street Bridge Milestone Schedule.

To approve the issuance of a purchase order to EJ Equipment Inc., in the amount of \$21,864.25 for repair and lining of the debris tank on a 1998 Vactor.

Chairman LaPlaca introduced this agenda item. Mr. Franco provided summary information on this item and answered questions from the trustees. In response to Chairman LaPlaca's question, Mr. Franco stated that this repair should extend the truck's operations another eight years. With no further questions, Trustee Hughes moved to approve. Trustee Haarlow seconded. The motion passed unanimously.

To approve the issuance of a purchase order to Dave Soltwisch Plumbing Inc., in the amount of \$15,365 for the installation of the Memorial Building lower level east patio drainage system.

Chairman LaPlaca introduced this agenda item. Mr. Franco provided summary information on this item and answered questions from the trustees. To get the best pricing and to accomplish the project as quickly as possible, Chairman LaPlaca suggested that separate contracts should be awarded to the lowest bidder for patio replacement and the lowest bidder for the drainage installation. After some discussion, the motion was revised to "To approve the issuance of purchase orders in the amount not to exceed \$26,000 for the installation of the Memorial Building lower level east patio drainage system and the replacement of the current surface with a system of permeable pavers." Trustee Haarlow moved to approve the revised motion. Trustee Hughes seconded. The revised motion passed unanimously.

Adjournment

With no further issues to be brought before the Committee, Trustee Haarlow moved to adjourn. Trustee Hughes seconded. Motion carried and the meeting was adjourned at 8:11 P.M.

Respectfully submitted,

Dan Deeter
Village Engineer

MEMORANDUM

DATE: 1/7/14
TO: CHAIRMAN LA PLACA AND THE EPS COMMITTEE
FROM: GEORGE FRANCO
SUBJECT: PUBLIC SERVICES MONTHLY REPORT-DECEMBER 2013

The Public Service Department dispatched snow and ice crews 20 times during December, spreading 723 tons of rock salt on Village roadways, 2.35 tons of bagged de-icing material used on village sidewalks, ramps, and stairs, and 1,110 gallons of liquid calcium chloride to treat road salt at low temperatures. The cost for chemicals during the month of December is \$35,905 for rock salt, \$733 for bagged material, and \$1,205 for a total monthly chemical cost of \$37,843. These crews have logged approximately 623 overtime hours and 217 regular hours to complete plowing and salting operations on roadways. A comparison of time and materials related to snow and ice operations from this year to last year (through January 7, 2014) is as follows:

	<u>2012</u>	<u>2013</u>
Crews Dispatched	2	23
Regular hours	30.5	441
Overtime hours	20	1,249
Salt	33 tons	915 tons
Bagged Material	1 tons	2.35 tons
Liquid Calcium	0/gal	1,110/gal
Estimated Chemical Cost*	\$2,015	\$48,800

All snow and ice removal equipment has been inspected and repairs are ongoing after each snow event. Public Service crews also responded to and repaired 7 water main breaks during the month of December. These crews logged 196 hours of overtime to complete repairs to the water distribution system. The dates, locations, and pipe sizes of the water main breaks are as follows:

1.	12/7/13	Madison St. & 55 th St.	16 inch cast iron main
2.	12/10/12	Hickory St. & Lincoln St.	8 inch cast iron main
3.	12/10/13	Adams St. & Maple St.	6 inch cast iron main
4.	12/11/13	Monroe St. & 7 th St.	6 inch cast iron main
5.	12/18/13	Hickory St. & Lincoln St.	8 inch cast iron main
6.	12/23/13	110 S. Monroe Street	4 inch cast iron main
7.	12/23/13	438 Phillippa Street	6 inch cast iron main

Due to the favorable weather conditions for this time of year, crews constructed the Burns Field ice rink on 12/10/13. While there has been a lot of snow and fluctuating temperatures during the month, the ice rink is currently open and considered in good condition. Public Service crews will maintain the ice rink as needed after snow and ice tasks are completed.

The Public Services department has been focusing on completing other tasks which include:

- The completion of a complete round of street sweeping throughout the Village during November and the recycling of 1,440 yards of leaf debris picked up during the sweeping operations in December.
- The installation of straw bales around trees in sledding areas of Village parklands for safety.
- The contractual tree pruning program began in December, with Trees R Us pruning 88 trees in KLM parklands as of December 31st. These crews will then focus on the area north of Ogden Avenue.

- Public Services staff reviewed and commented on 8 tree preservation plans submitted for building permits and applied for Tree City USA status for 2013, which will be the Village's 22nd year as a Tree City USA.
- Monitoring of sump pump discharge locations, which require maintenance to remove icing hazards on roadways. 33 man hours and 14 tons of salt have been utilized to maintain conditions on roadways throughout the Village.

Cc: Kathleen Gargano, President Cauley, and Board of Trustees

PUBLIC SERVICE MONTHLY REPORT FOR DEC. 2013.00

ROADWAY

6.00 SIGNS
1.00 POSTS
2.00 SIGNS REPAIRED
0.00 TONS OF COLD MIX USED FOR POTHOLES
5.50 TONS OF HOT MIX
0.00 TONS OF GRAVEL FOR ALLEYS
0.00 WHITE PAINT
0.00 YELLOW PAINT
16.00 MAN HOURS BASIN TOP CLEANING
0.00 MAN HOURS ALLEY GRADING
0.00 MAN HOURS ALLEY TRIMMING
0.00 YARD OF CONCRETE

SNOW / ICE

21.00 Times crews where called out for snow and ice.
623.00 Tons of road salt used
0.00 Tons of sand used
2.35 Tons of salt + calcium for walks, ramps, stairs and train platforms.

TREE MAINT

19.00 TREES TRIMMED BY VILLAGE STAFF
22.00 TREES REMOVED BY VILLAGE STAFF
0.00 ELM TREES DETECTED BY STAFF 20 Pub. 32 Private
0.00 ELM TREES REMOVED BY STAFF
0.00 ELM TREES THAT HAVE HAD AMPUTATED LIMBS
2.00 TREE STUMPS REMOVED
0.00 TREES PLANTED
88.00 TREES TRIMMED BY CONTRACTOR
7.00 NON ELMS REMOVED BY CONTRACTOR
0.00 ELMS REMOVED BY CONTRACTOR
28.00 ASH TREES REMOVED DUE TO EAB 299 since Feb. 2011

EQUIP MAINT

0.00 SCHEDULED MAINT
0.00 UNSCHEDULED REPAIRS

WATER OPERATIONS

0.00 GALLONS OF WATER PUMPED TO DISTRIBUTION SYSTEM
0.00 PUMPED IN DECEMBER 2012
0.00 FEET OF SEWER LINES CLEANED
0.00 SEWER BACKUP INVESTIGATIONS
0.00 BASINS REPAIRED
0.00 BASINS REBUILT
0.00 BASINS CLEAN FROM DEBRIS INSIDE
111.00 METER READINGS
2.00 WATER METERS REPAIRED
5.00 WATER METERS INSTALLED

9.00 HYDRANTS REPAIRED
4.00 HYDRANTS FLUSHED
7.00 WATER MAINS REPAIRED
0.00 SEWER SERVICE LOCATED
239.00 J U L I E LOCATE REQUEST
5.00 WATER CONNECT OR DISCONNECT INSPECTIONS
14.00 VALVES EXERCISED
0.00 VALVES REPAIRED
3.00 WATER METERS REMOVED
0.00 SEWER CONNECT INSPECTIONS
0.00 FOUNTAINS SERVICED

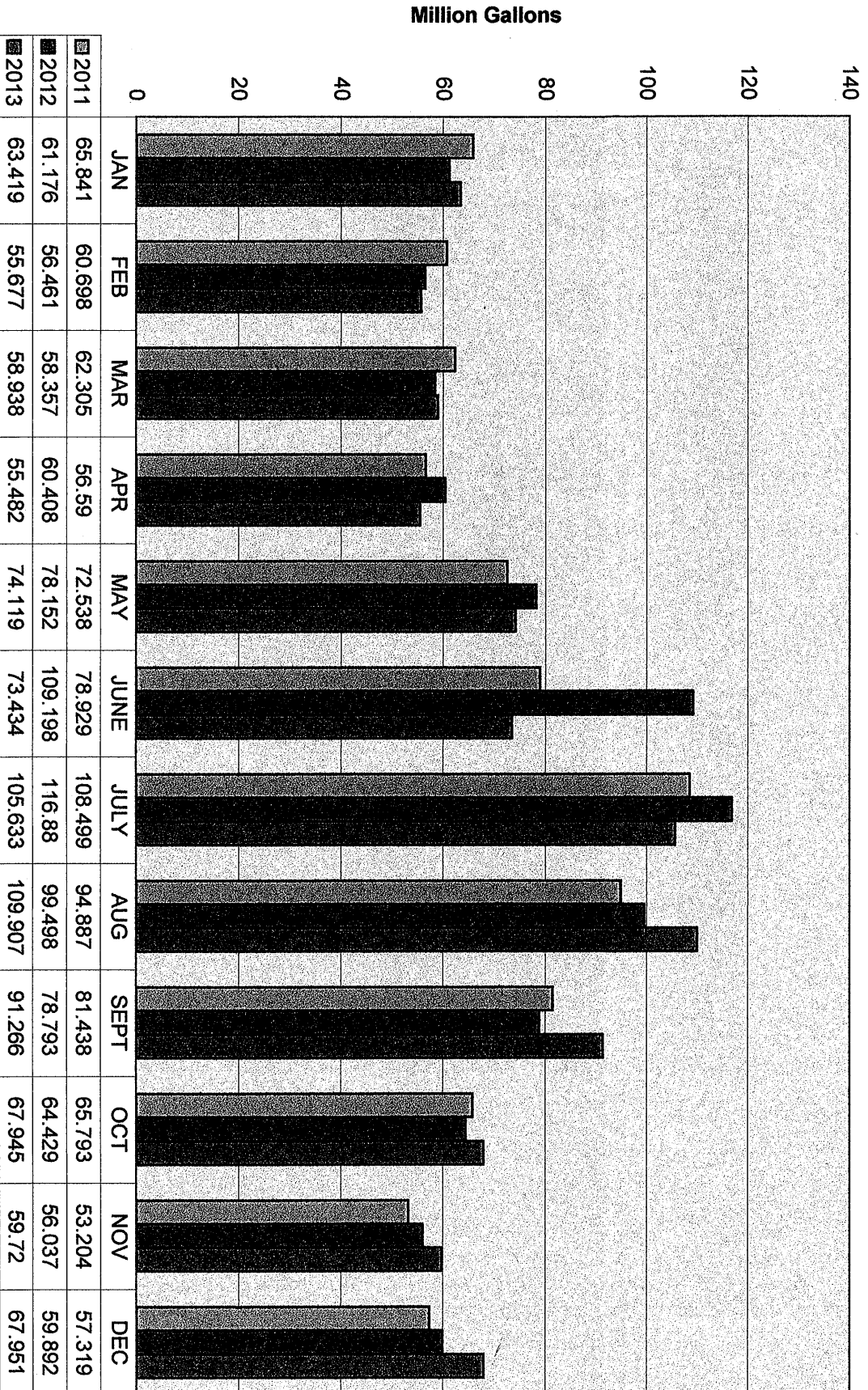
PARKS MAINTENANCE

Parks maintenance crews continued routine maintenance including cleaning and stocking of Park facility bathrooms and refuse removal in the Business District. Eleven Village containers in the BD were decorated for the holiday season. Preventative maintenance has begun on all parks equipment including mowers, weed eaters, and blowers. Construction of the Burns Field ice rink was completed and has been filled with water. The ice rink will be maintained as weather conditions dictate. Straw bales were placed as sledding bumpers at KLM, Brush Hill, and Veeck Parks.

BUILDING MAINTENANCE

Building maintenance crews have been monitoring and servicing heating systems in Village owned buildings, making repairs as needed. Service calls for the month of December include: heating system repairs at the Water Plant Building, KLM annex building, Village Hall, Police Department, Youth Center, and Burns Field warming house. Fire suppression system repairs were completed at Village Hall and the Community Pool building. Plumbing repairs were completed at the KLM annex building, the Hinsdale Animal Shelter office at KLM, and KLM Lodge.

MONTHLY PUMPAGE



VILLAGE OF HINSDALE - IL 0434520

MONTHLY REPORT

Month: December, 2013

Day	Dist x1000	Finished Water				Air Temp Average	Total Precip
		Free CL ₂ Avg (mg/l)	Turbidity Avg (NTU)	Fluoride Avg (mg/l)	H ₂ O Temp Average		
1	2060				45		0.00
2	2085	0.93	0.03	1.05	45	40	0.00
3	2099	0.91	0.03	1.06	45	38	0.00
4	2041	0.90	0.03	1.08	46	38	0.00
5	2103	0.92	0.03	1.08	46	30	0.00
6	2151	0.91	0.03	1.11	45	40	0.00
7	140	0.90	0.03	1.08	44	38	0.00
8	2338				44		0.00
9	2117	0.84	0.03	1.03	43	20	0.00
10	2377	0.87	0.03	1.05	43	21	0.00
11	2288	0.88	0.03	1.05	42	19	0.00
12	2217	0.89	0.03	1.08	41	25	0.00
13	2226	0.91	0.03	1.11	41	32	0.00
14	2357	0.89	0.03	1.03	41	30	0.00
15	2240				41		0.00
16	2323	0.87	0.03	1.03	41	25	0.00
17	2293	0.89	0.03	1.03	40	30	0.00
18	2414	0.89	0.03	1.08	40	20	0.00
19	2458	0.91	0.03	1.08	40	28	0.00
20	2264	0.99	0.02	1.10	40	35	0.00
21	2247	0.97	0.02	1.07	40	30	0.00
22	2311				40		0.00
23	2322	0.93	0.02	1.01	40	18	0.00
24	2549				40		0.00
25	2307	0.95	0.02	1.03	39	20	0.00
26	2336	0.96	0.02	1.02	39	24	0.00
27	2303				39		0.00
28	2269	0.95	0.02	1.04	39	20	0.00
29	2151				39		0.00
30	2243	0.96	0.02	1.05	39	19	0.00
31	2322				39		0.00

Day	Dist x1000	Free CL ₂ Avg (mg/l)	Turbidity Avg (NTU)	Fluoride Avg (mg/l)	H ₂ O Temp Average	Air Temp Average	Total Precip
Sum:	67951						0.00
Avg:	2192	0.91	0.03	1.06	41	28	0.00
Max:	2549	0.99	0.03	1.11	46	40	0.00
Min:	140	0.84	0.02	1.01	39	18	0.00

Reported By: Mark Beltrone

VILLAGE OF HINSDALE, PLANT REPORT

Month: December, 2013

Day	Flow		Tank Levels		Pressures		Pump Run Times		
	Total (gpd)	Standpipe (ft)	Clearwell (ft)	GSR (ft)	Upstream (psi)	System (psi)	HSP1 (hr)	HSP2 (hr)	HSP3 (hr)
1	2060	91.1	8.1	15.6	92.6	64.0	0.0	0.0	4.8
2	2085	90.9	7.9	15.4	93.5	63.8	0.0	0.0	5.1
3	2099	90.7	7.9	15.4	93.4	63.6	0.0	0.0	4.1
4	2041	90.7	7.9	15.4	94.3	63.6	0.0	0.0	4.3
5	2103	91.0	7.8	15.5	92.7	63.9	0.0	0.0	5.0
6	2151	91.0	7.8	15.6	93.5	63.8	0.0	0.0	4.1
7	1400	90.8	7.8	15.7	93.2	63.9	0.0	0.0	4.5
8	2338	90.3	7.7	15.3	91.7	64.1	0.0	0.0	0.0
9	2117	90.7	7.9	15.5	93.8	63.7	0.0	0.0	4.9
10	2377	91.1	7.3	14.7	92.5	64.4	0.0	0.0	7.3
11	2288	90.7	7.2	14.9	95.4	63.9	0.0	0.0	5.3
12	2217	90.1	7.4	15.2	94.2	63.5	0.0	0.0	5.3
13	2226	90.7	7.0	14.5	92.8	63.9	0.0	0.0	5.8
14	2357	90.8	7.3	14.8	93.3	63.9	0.0	0.0	5.9
15	2240	90.6	7.7	15.4	92.8	63.9	0.0	0.0	6.3
16	2323	90.5	7.1	14.7	93.6	63.9	0.0	0.0	5.3
17	2293	90.4	7.0	14.6	92.1	63.8	0.0	0.0	5.5
18	2414	90.8	6.9	14.5	92.5	64.2	0.0	0.0	5.7
19	2458	90.5	7.8	15.5	92.5	63.9	0.0	0.0	4.5
20	2264	91.3	7.9	15.6	92.4	64.2	0.0	0.0	5.0
21	2247	91.0	7.8	15.4	93.2	64.2	0.0	0.0	6.2
22	2311	91.1	7.9	15.5	92.6	64.2	0.0	0.0	4.8
23	2322	90.7	7.5	15.5	93.4	64.1	0.0	0.0	6.4
24	2549	90.7	7.2	15.3	92.5	64.4	0.0	0.0	5.7
25	2307	91.0	7.5	15.3	93.5	64.2	0.0	0.0	5.9
26	2336	91.1	7.4	15.4	93.5	64.2	0.0	0.0	6.1
27	2303	90.7	7.3	15.2	92.6	64.0	0.0	0.0	5.5
28	2269	91.3	7.5	15.2	93.2	64.2	0.0	0.0	4.7
29	2151	91.3	7.9	15.7	93.3	64.2	0.0	0.0	4.8
30	2243	90.6	7.4	15.4	94.1	63.9	0.0	0.0	5.5
31	2322	90.9	7.3	15.2	93.5	64.1	0.0	0.0	4.1
<hr/>									
Sum	57951						0.0	0.0	156.4
<hr/>									
Apr	2192	90.8	7.6	15.3	93.2	64.0	0.0	0.0	5.0
<hr/>									
May	2549	91.3	8.1	15.7	95.4	64.4	0.0	0.0	7.3
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June	140	90.1	6.9	14.5	91.7	63.5	0.0	0.0	0.0

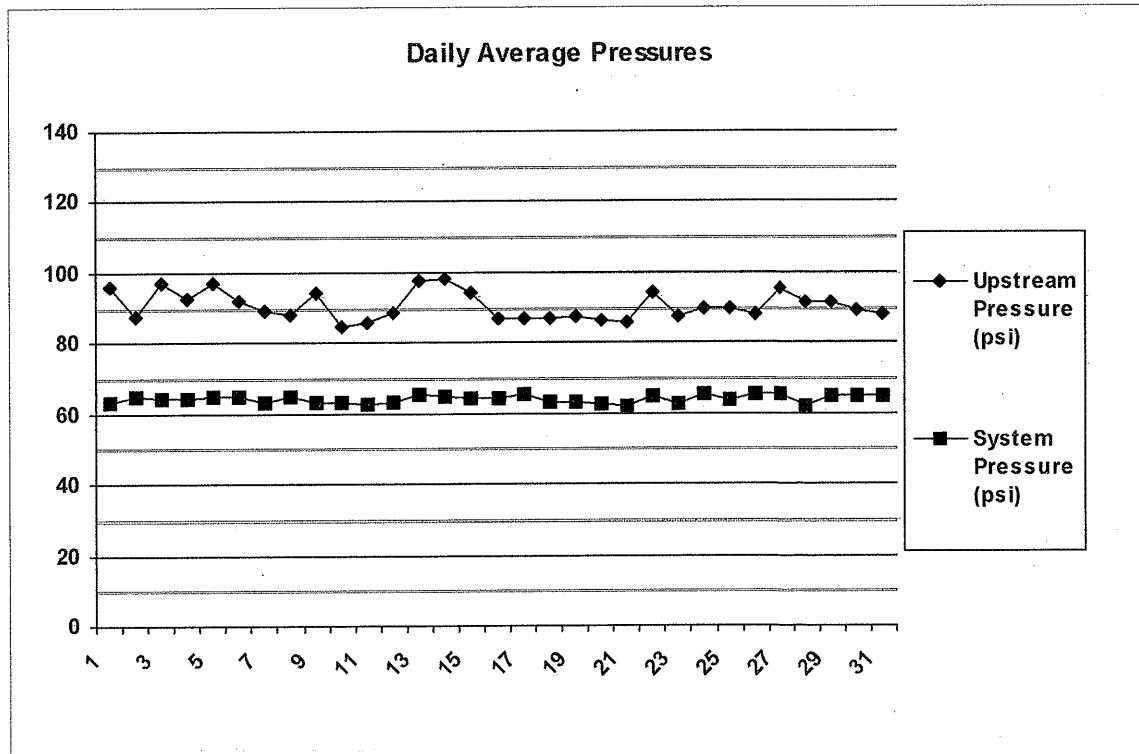
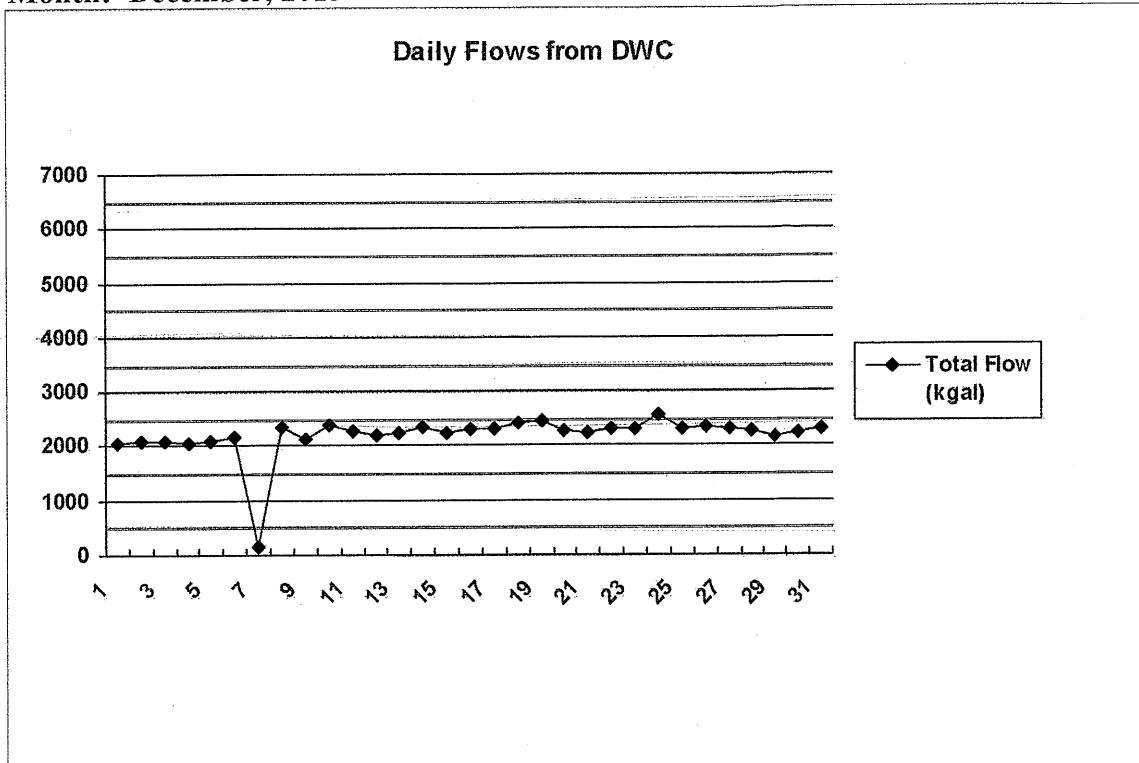
VILLAGE OF HINSDALE, PLANT REPORT

Month: December, 2013

Day	Flow		CL ₂ Residual —		Turbidity Average (NTU)	Fluoride		H ₂ O Temp		Air Temp		Total Precip (in)
	Valve 1 (kgal)	Valve 2 (kgal)	Analyzer (ppm)	Lab (ppm)		Average (ppm)	Average (F)	Average (F)	Average (F)	Average (F)	Average (F)	
1	0	2060	0.82				45					0.00
2	0	2085	0.80	0.93	0.03	1.05	45	40				0.00
3	0	2099	0.84	0.91	0.03	1.06	45	38				0.00
4	0	2041	0.87	0.90	0.03	1.08	46	38				0.00
5	0	2103	0.85	0.92	0.03	1.08	46	30				0.00
6	0	2151	0.81	0.91	0.03	1.11	45	40				0.00
7	0	140	0.83	0.90	0.03	1.08	44	38				0.00
8	0	2338	0.80				44					0.00
9	0	2117	0.80	0.84	0.03	1.03	43	20				0.00
10	0	2377	0.79	0.87	0.03	1.05	43	21				0.00
11	0	2288	0.80	0.88	0.03	1.05	42	19				0.00
12	0	2217	0.86	0.89	0.03	1.08	41	25				0.00
13	0	2226	0.77	0.91	0.03	1.11	41	32				0.00
14	0	2357	0.73	0.89	0.03	1.03	41	30				0.00
15	0	2240	0.78				41					0.00
16	0	2323	0.75	0.87	0.03	1.03	41	25				0.00
17	0	2293	0.74	0.89	0.03	1.03	40	30				0.00
18	0	2414	0.69	0.89	0.03	1.08	40	20				0.00
19	0	2458	0.70	0.91	0.03	1.08	40	28				0.00
20	0	2264	0.84	0.99	0.02	1.10	40	35				0.00
21	0	2247	1.00	0.97	0.02	1.07	40	30				0.00
22	0	2311	0.99				40					0.00
23	0	2322	0.98	0.93	0.02	1.01	40	18				0.00
24	0	2549	0.98				40					0.00
25	0	2307	1.02	0.95	0.02	1.03	39	20				0.00
26	0	2336	0.97	0.96	0.02	1.02	39	24				0.00
27	0	2303	0.95				39					0.00
28	0	2269	0.97	0.95	0.02	1.04	39	20				0.00
29	0	2151	0.97				39					0.00
30	0	2243	1.00	0.96	0.02	1.05	39	19				0.00
31	0	2322	0.98				39					0.00
Sum:												0.00
Avg:												0.00
Max:												0.00
Min:												0.00

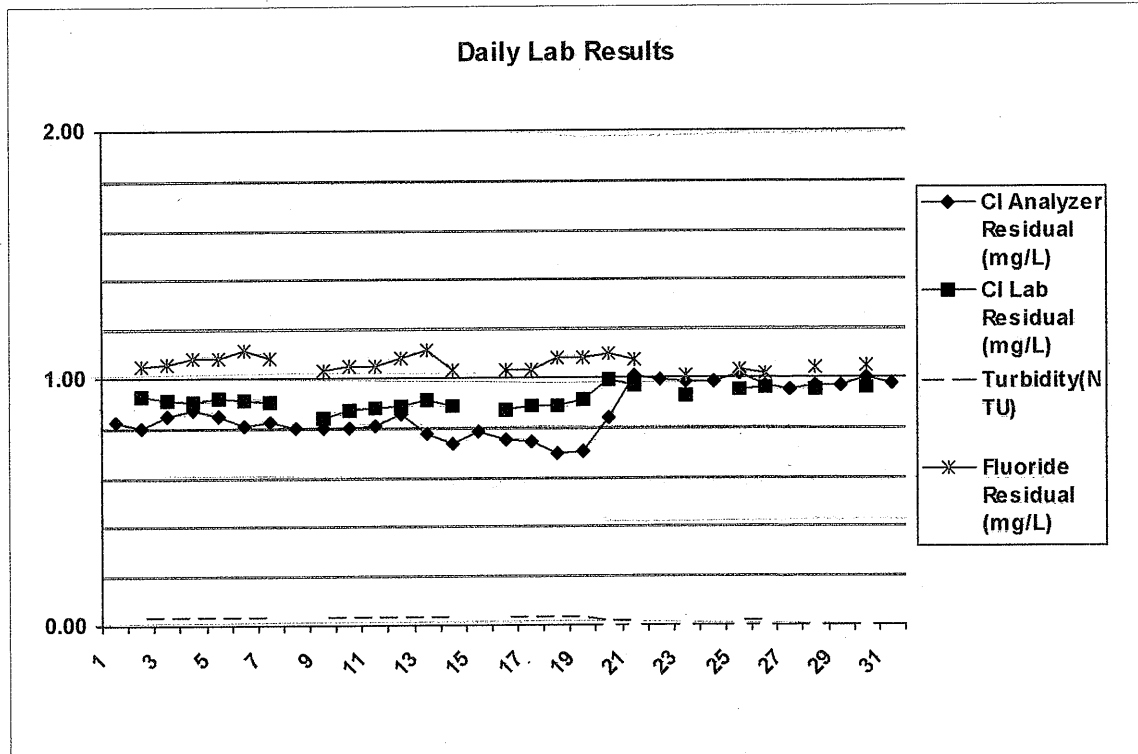
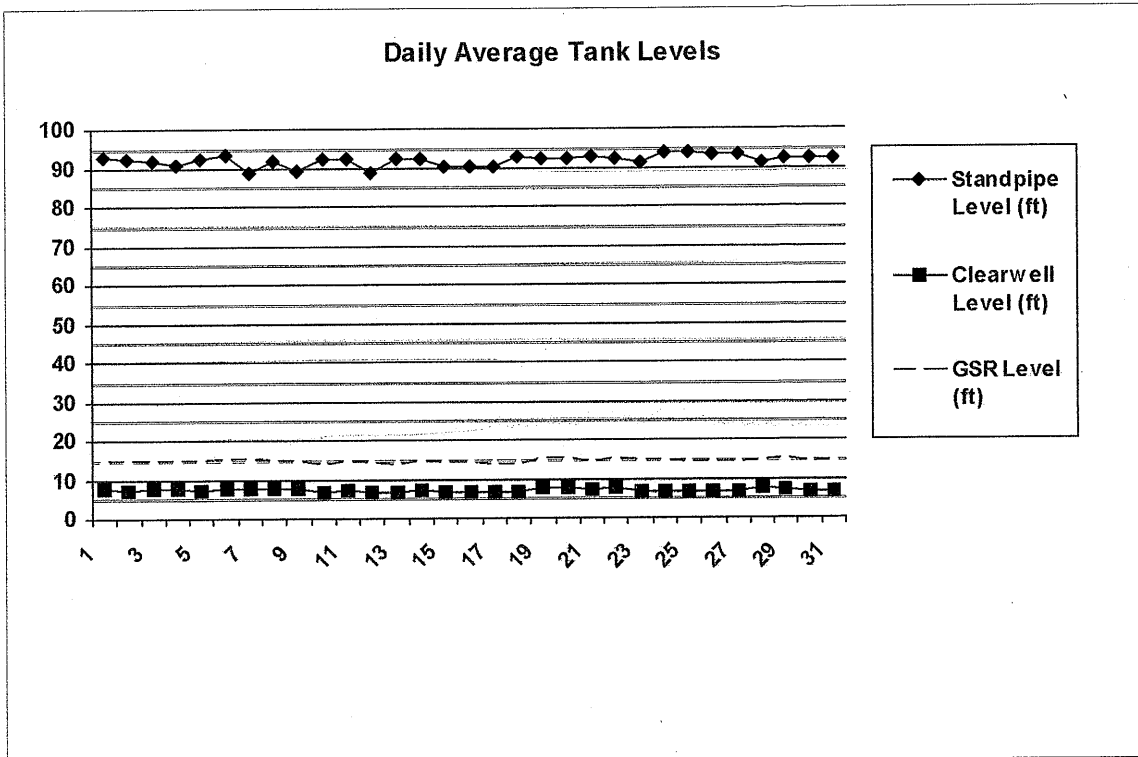
VILLAGE OF HINSDALE, SYSTEM TRENDS

Month: December, 2013



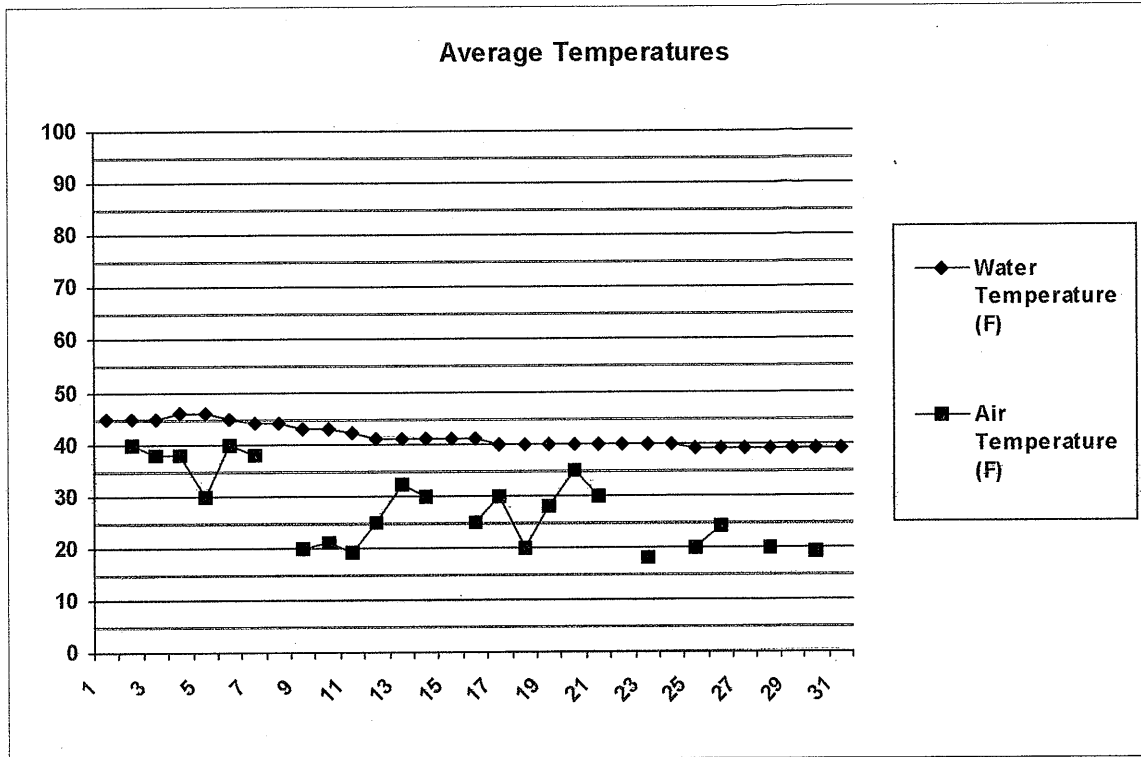
VILLAGE OF HINSDALE, SYSTEM TRENDS

Month: December, 2013



VILLAGE OF HINSDALE, SYSTEM TRENDS

Month: December, 2013



High Service and Well Pump Maintenance

December 2013

High Service Pump Motors

High Service Pump Motor #1- Check oil and lubricate grease fittings

High Service Pump Motor #2- Check oil and lubricate grease fittings

High Service Pump Motor #3- Check oil and lubricate grease fittings

High Service Pump Motor #4- Check oil and lubricate grease fittings

Well Pump Motors

Well #2 Pump Motor- Check oil, grease fittings, and run for Bacteria Samples.

Well #5 Pump Motor- Check oil, grease fittings, and run for Bacteria Samples.

Well #8 Pump Motor- Check oil, grease fittings, and run for Bacteria Samples .

Well #10 Pump Motor- Check oil, grease fittings, and run for Bacteria Samples.

MONTHLY REPORT FOR December, 2013

# of Bacteria samples	<u>25</u>
# of field chlorine	<u>22</u>
# of field turbidities	<u>21</u>
# of lab chlorine	<u>23</u>
# of lab turbidities	<u>23</u>
# of lab pH	<u>23</u>
# of lab fluoride	<u>23</u>
# of precipitation readings	<u>0</u>
# of temperature readings(air)	<u>23</u>
# of temperature readings(water)	<u>31</u>
# of DBP samples	<u>0</u>
# of Pumps serviced	<u>8</u>
# of Sprinkling Violations	<u>0</u>
# of UCMR3 Samples	<u>0</u>

MEMORANDUM

TO: CHAIRMAN LA PLACA AND THE EPS COMMITTEE
FROM: GEORGE FRANCO, DIRECTOR OF PUBLIC SERVICES
SUBJECT: PROPOSED PARKWAY TREE REMOVAL AT 629 S. GARFIELD ST.
DATE: JANUARY 7, 2014

Mr. Bryan Bomba is building a new home at 629 S. Garfield St. His construction plans site the proposed north apron of a circular driveway that requires the removal of a parkway tree. In order to site the drive per the construction plans Mr. Bomba is requesting permission to remove a tree located on public property.

The tree is a honeylocust that has a 21.0" diameter at 4.5' above grade. The estimated height of the tree is 65' and the estimated canopy width is 45'. The tree's condition is rated as good in the Village's tree inventory completed in 2012. There are no significant visible structural defects in the trunk, or scaffold branches. The tree has a balanced habit. It is spaced well with the other parkway trees roughly 35' from both the hackberry tree to the north and the linden tree to the south. There would not be adequate space to plant a replacement tree near this site.

Staff has not permitted the removal of this tree as requested. Mr. Bomba is appealing that decision to the EPS committee per their function as the Village's "Tree Board". Per e-mail, Mr. Bomba has received information on Village Code fees regarding parkway tree removals. Staff is requesting direction from the Committee in responding to his request.

Cc: Kathleen Gargano, President Cauley and Board of Trustees

**Village of Hinsdale
Ordinance No. O2013-13**

**AN ORDINANCE AMENDING TITLE 7, CHAPTER 2
OF THE HINSDALE VILLAGE CODE, "TREES AND SHRUBS,"
REGARDING
GENERAL PENALTIES FOR ORDINANCE VIOLATIONS**

WHEREAS, the Village of Hinsdale is an Illinois non-home rule municipality, organized according to Article I, Section 7 of the Illinois Constitution of 1970; and

WHEREAS, the Village of Hinsdale has the authority to adopt ordinances affecting the health, safety and welfare of its residents; and

WHEREAS, the Village of Hinsdale has an interest in protecting the unique character of its rights of way and parkways and thereby enhancing the property values within the Village; and

WHEREAS, the Section 7-2-10 of the Municipal Code of the Village of Hinsdale creates a standing tree board, which "shall consist of and shall be the members of the environment and public services committee of the village or any other standing committee of the village board so appointed by the village president"; and

WHEREAS, Title 7, Chapter 2 of the Municipal Code of the Village of Hinsdale creates certain penalties for residents who remove or cut down any tree in any public street or parkway without a permit from the Village; and

WHEREAS, Village Staff and the tree board have recommended to the Village Board that Village Staff should have the discretion to permit for the removal of parkway trees in accordance with certain defined standards and to create village procedure for the appeal of such decisions; and

WHEREAS, it has been determined by the President and Board of Trustees of the Village of Hinsdale that it is in the best interests of the public to amend the Village Code to clarify and specify the powers and duties of Village Staff and the tree board and to provide incentives to residents to protect the trees in the public way and provide proactive protection for these trees prior to accidental construction damage.

NOW, THEREFORE BE IT ORDAINED BY THE PRESIDENT AND THE BOARD OF TRUSTEES OF THE VILLAGE OF HINSDALE:

Section One: Title 7 ("Public Ways and Properties"), Chapter 2 ("Trees and Shrubs"), Section 7-2-2 ("Planting and Removal") is hereby amended to read in its entirety as follows:

A. Permit to Plant: It shall be unlawful to plant any tree or shrub in any public street or parkway or other public place without having first secured

a permit therefor. Applications for such permits shall be made to director of public services or the village forester, who shall be authorized to issue such permits. All trees and shrubs so planted shall be placed subject to the directions of the director of public services or the village forester. Provided, however, that no permit shall be issued for the planting of any willow, cottonwood, box elder, catalpa or any variety of poplar trees.

B. Work On Public Trees:

1. It shall be unlawful to remove, cut down or otherwise work on any tree or shrub in any public street or parkway or other public place without having first secured a permit from the village. Applications for such permits shall be made to the director of public services or the village forester, who shall have authority to issue such permits for good cause shown. The director of public services or the village forester may, at his or her discretion, seek a recommendation on the issuance of a permit hereunder from the tree board, (as established under Section 7-2-10 of this Title). Except as set forth below, a fee of five thousand dollars (\$5,000) shall be paid to the village for any permit issued hereunder to remove or cut down any tree in any public street or parkway. However, the fee for issuance of a permit to remove or cut down a tree under this section shall be increased to ten thousand dollars (\$10,000) if the owner of any property for which a building permit has been issued applies for a permit hereunder after the issuance of the building permit.

2. No fee hereunder shall apply for a permit issued to move a tree on any public street or parkway to another location on a public street or parkway (said location to be determined by the director of public services or the village forester); provided, however, that any permit to move such a tree shall provide that if, within a time specified by the director of public services or the village forester (not to exceed 36 months) from the date of the issuance of the permit, the tree dies then the five thousand dollar (\$5,000) fee designated under paragraph 1 above shall apply and be paid to the Village.

3. Any person who removes or cuts down any tree in any public street or parkway or other public place without a permit from the village, or causes the death of a tree in any public street or parkway or other public place by negligence or failure to adequately protect said tree during construction on that person's property, shall pay the Village a permit fee of twenty-five thousand dollars (\$25,000)

~~a. Replace the tree with a tree of the same size and species, or another species approved by the director of public services, and shall maintain said replacement tree in a safe and healthy condition for a two (2) years after the replacement tree is planted. Replacement of the tree that is removed~~

~~without a permit shall occur not more than six (6) months after the date of removal of such tree, and~~

~~b. Reimburse the village in an amount equal to the greater of three (3) times the value of the tree, as determined by an expert in valuation of trees selected by the village, or one thousand dollars (\$1,000.00).~~

4. Diseased or Damaged Trees; Health of Surrounding Trees. The fees set forth under this provision regarding permits for the removal or moving of trees and removal of trees without a permit shall not apply if in the opinion of the director of public services or the village forester the tree should be removed (i) due to disease or damage unrelated to any construction on the property; or (ii) if removal of the tree due to its location, condition or other factors would benefit the health and/or viability of surrounding trees.

5. Commercial Development. The fees set forth under this provision regarding permits for the removal or moving of trees and removal of trees without a permit shall not apply if the removal or moving of said tree(s) is pursuant to a landscape plan approved by the Board of Trustees as part of a commercial development.

6. Public Tree Appeals. An appeal from the decision of the director of public services or the village forester regarding a permit under this Section or the imposition of a related fee may be taken to the tree board by the person or entity aggrieved by said decision, any such appeal to be taken within 60 days of the date of the decision. The decision of the tree board in the case of an appeal shall be final.

7. Work on Public and Private Trees. Any person doing tree work on elm or ash trees on either public or private property in the Village is required to sanitize their equipment by cleaning all pruning and cutting tools with rubbing alcohol between uses so as to prevent the spread of disease or fungus.

8. Tree Fund. All fees collected pursuant to this provision shall be placed in a tree fund, the proceeds of which shall be used only for the replacement of trees on public property or for the maintenance or treatment of trees on public property."

Section Two: Title 7 ("Public Ways and Properties"), Chapter 2 ("Trees and Shrubs"), is hereby amended to include a new Section 7-2-12, "General Penalty," to read in its entirety:

"7-2-12: GENERAL PENALTY:

Unless a more specific fine or permit provision from this Chapter 7 applies, any person convicted of a violation of any provision of this

chapter shall be punished by a fine of not more than five hundred dollars (\$500.00) for each offense. Each day any violation of any provision of this chapter shall occur or continue shall constitute a separate offense."

Section Three: This Ordinance shall be in full force and effect from and after its passage, by simple majority vote of the corporate authorities, and approval in the manner provided by law.

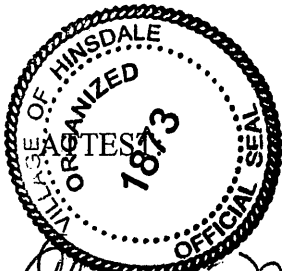
PASSED this 18th day of June, 2013.

AYES: Trustees Elder, Angelo, Haarlow, Hughes, LaPlaca, Saigh

NAYS: NOne

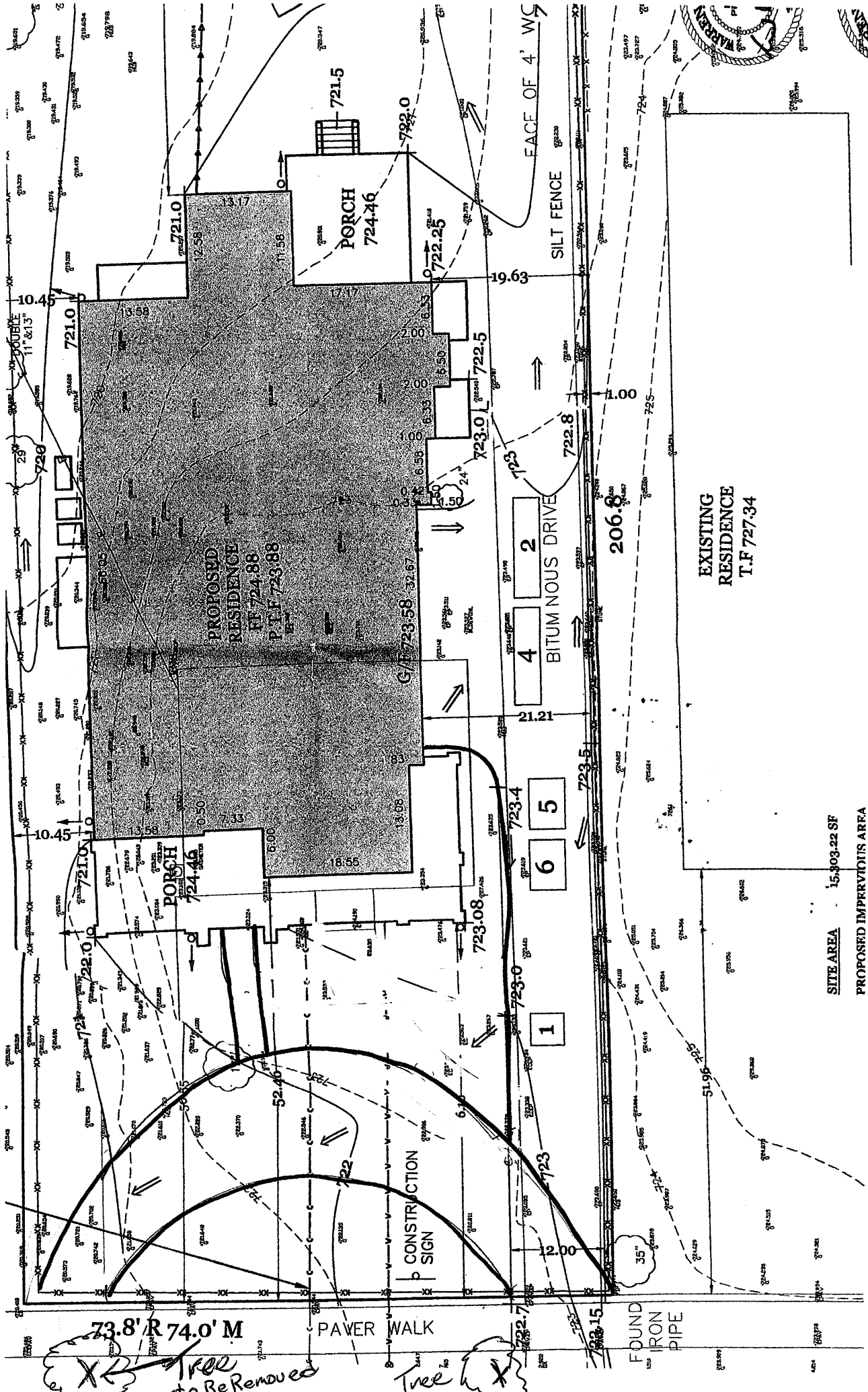
ABSENT NOne

APPROVED this 18th day of June, 2013.



Kristine M. Burton
Village Clerk

[Signature]
Village President



SITE AREA 15,303.22 SF
 PROPOSED IMPERVIOUS AREA

EXISTING
 RESIDENCE
 T.F 727.34

FACE OF 4' WC
 SILT FENCE

4 2
 BITUM NOUS DRIVE
 6 5
 1

73.8' R 74.0' M
 Tree to Be Removed

Tree to Be Removed

FOUND
 IRON PIPE

93 Ulm Place



© 2013 Google
© 2014 Google

41°47'42.44" N 87°55'33.78" W elev 847 ft

Go

John Finnell

From: John Finnell
Sent: Monday, December 23, 2013 2:48 PM
To: 'bryan@bryanbomba.com'
Cc: Thomas Bueser; George Franco; Kathleen Gargano; Laura LaPlaca
Subject: RE: 629 S. Garfield - EPS

Bryan,

Please accept this e-mail as confirmation to have the parkway tree/driveway issue placed on the agenda for the January 13, 2014 meeting of the Environment and Public Services Committee. The meetings are held in the Village Board Room at Village Hall and begin at 7:30 p.m. You can park and use the entrance off of Maple St. The committee will discuss the issues with you or your builder and decide if the parkway tree removal request will be granted. Please feel free to bring any material or pictures that would be helpful to the committee in deciding on the issue. If the removal is permitted, there are fees involved which are outlined below from the Village Code

7-2-2: PLANTING AND REMOVAL.

B. Work On Public Trees: 1. It shall be unlawful to remove, cut down or otherwise work on any tree or shrub in any public street or parkway or other public place without having first secured a permit from the village. Applications for such permits shall be made to the director of public services or the village forester, who shall have authority to issue such permits for good cause shown. The director of public services or the village forester may, at his or her discretion, seek a recommendation on the issuance of a permit hereunder from the tree board, (as established under Section 7-2-10 of this Title). Except as set forth below, a fee of five thousand dollars (\$5,000) shall be paid to the village for any permit issued hereunder to remove or cut down any tree in any public street or parkway. However, the fee for issuance of a permit to remove or cut down a tree under this section shall be increased to ten thousand dollars (\$10,000) if the owner of any property for which a building permit has been issued applies for a permit hereunder after the issuance of the building permit.

2. Any person who removes or cuts down any tree in any public street or parkway or other public place without a permit from the village, or causes the death of a tree in any public street or parkway or other public place by negligence or failure to adequately protect said tree during construction on that person's property, shall:

- a. Pay the Village a permit fee of Twenty-Five Thousand Dollars (\$25,000).
- b. Work On Public And Private Trees: Any person doing tree work on elm trees on either public or private property in the village is required to sanitize his equipment by cleaning all pruning and cutting tools with rubbing alcohol between uses so as to prevent the spread of dutch elm fungus.
- c. Diseased or Damaged Trees. The fees set forth under this provision regarding permits for the removal of trees and removal of trees without a permit shall not apply if in the opinion of the director of public services or the village forester the tree should be removed due to disease or damage unrelated to any construction on the property.
- d. Public Tree Appeals. An appeal from the decision of the director of public services or the village forester regarding a permit under this Section or the

imposition of a related fee may be taken to the tree board by the person or entity aggrieved by said decision, any such appeal to be taken within 60 days of the date of the decision. The decision of the tree board in the case of an appeal shall be final.

e. All fees collected pursuant to this provision shall be placed in a tree fund, the proceeds of which shall be used only for the replacement of trees on public property or for the maintenance or treatment of trees on public property."

Please let me know if you have any questions or concerns.

Best regards,

John

John R. Finnell
Village Forester
Village of Hinsdale
ISA Certified Arborist IL-1111A

O: 630 789 7043
F: 630 789 7046
E: jfinnell@villageofhinsdale.org

From: George Franco
Sent: Monday, December 23, 2013 2:32 PM
To: John Finnell
Cc: Thomas Bueser
Subject: Fwd: 629 S. Garfield - EPS

Please follow up with brian

Sent from my iPhone

Begin forwarded message:

From: "Bomba, Bryan" <bryan@bryanbomba.com>
Date: December 23, 2013 at 2:24:08 PM CST
To: <GFranco@VillageOfHinsdale.org>
Subject: 629 S. Garfield - EPS

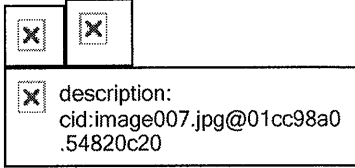
Hi George

>Address: 629 S Garfield
>Circular Driveway will require tree on North side of parkway to be removed
>Tree is 17 inch diameter. Species: Locust
>Your message said that I'd be on the schedule for January 13, 2014 at 730pm. That is a Monday.
Please confirm. Please let me know how to prepare for the meeting.
>Thank you.

Bryan Bomba
Bryan Bomba Group at Coldwell Banker Residential Brokerage
Wall Street Journal's Top 150 Agents in the USA
630.286.9242 direct | 781.609.9897 efax

1/10/2014

Bryan@BryanBomba.com
HinsdaleAreaRealEstate



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MEMORANDUM

TO: Chairman LaPlaca & EPS Committee
FROM: Ralph Nikischer, Pest Management Coordinator
DATE: 12/17/2013
SUBJECT: IPM Compliance 2013

Attached to this memo is the annual Integrated Pest Management report. The report outlines various activities conducted by the Village in 2013 including turf and prairie maintenance, tree preservation and sustainable landscaping. This report also offers recommendations for future actions including a tentative schedule for 2014.

In accordance with the Village IPM policy an annual review meeting needs to be held. I would like to conduct the IPM review as part of the February EPS Committee meeting. The review shall specifically consider the issue of chemical pesticide use on Village property, alternative means for the management of pests on Village property and any recommendations of the Pest Management Coordinator concerning pest management on Village property. A power point presentation will outline IPM practices in 2013. Public participation is encouraged and a registry will be available for anyone wishing to receive additional information. Any technical questions regarding chemical pesticide use must be submitted in writing, no less than seven days before the Integrated Pest Management review meeting. Due to its length this report will be distributed electronically. It will be available to residents via the Village website. Any individual who wishes to have a paper copy may pick one up at the Village Hall.

cc: President Cauley and Board of Trustees
Kathleen Gargano
George Franco



VILLAGE OF HINSDALE

FOUNDED IN 1873

Integrated Pest Management
2013 Report

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1. IPM Process

Integrated Pest Management or IPM is the control of insects, disease, weeds and other pests through environmentally sensitive practices. The Village of Hinsdale adopted an IPM policy on November 21, 1995 which requires an annual report from the Pest Management Coordinator. Listed in this report are practices used by the Village in order to maintain quality flora while limiting adverse affects on people and the environment. The IPM process consists of **action thresholds, identification, prevention and control**. The Village has developed a diverse program in order to manage a large scope of pests. This report contains IPM information regarding **turf maintenance, sustainable landscaping, prairie maintenance, tree preservation and mosquito abatement**.

The first step taken when developing an IPM program is setting **action thresholds**. An action threshold is the level of tolerance in which pest management action is needed. For example the Village sets action thresholds on all public green space turf. Thresholds are determined by turf density, weed population and appearance. Action (aeration, fertilization, weed control and over seeding) is taken when a particular area falls below a set threshold. Management methods that have the lowest environmental impact are used first, which include aeration and over seeding. It is important to note not every weed or insect needs to be managed. Many insects and weeds have beneficial properties which strengthen an ecosystem. Once a threshold falls below acceptable levels, proper identification is necessary when developing a control plan.

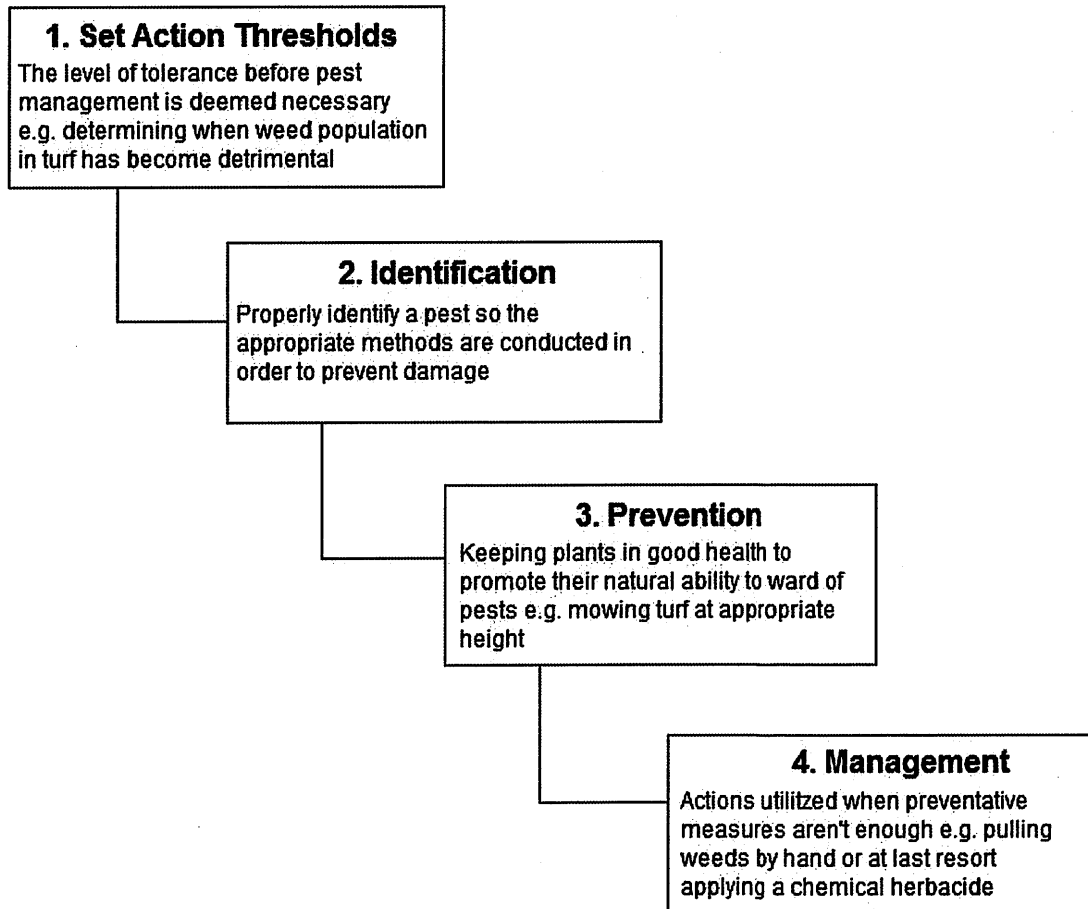
The next step of the IPM process is **identification**. A sound IPM program will first identify the source of a problem and then take necessary actions once the problem falls below the set action threshold. Good identification helps reduce the amount of applied pesticide by targeting the core problem. A specific weed or insect can be targeted in the most suitable manner for management. For example Crabgrass is best managed in a different season than Creeping Charlie. Understanding a pest's lifecycle gives the best opportunity for management. A pest's lifecycle cannot be determined unless it is properly identified. After identification, effective measures can be taken to prevent falling below action thresholds.

Many pests can be managed through proper **prevention**. Steps can be utilized to prevent pesticide action. Some actions may include selecting pest resistant varieties, cutting turf at appropriate length and conducting prescribed prairie burns on an annual basis. All plants have natural resistance to pests. Under a sound IPM program one should promote a plant's natural ability to ward off insects or diseases prior to any chemical use. For example tree limbs that are dead or decaying provide insect breeding grounds and often contain disease. Pruning such limbs will allow the tree to naturally

defend against other pests that may be present. When preventive measures aren't enough to ward off pests then management must be developed.

Once an action threshold is broken appropriate **management** should be taken. The first management approach should have the least amount of environmental impact. These methods include trapping insects or hand weeding. Target spraying of pesticides should be used as a last resort when all other methods of management fail. If a pesticide application is necessary it must be used in the appropriate manner. If the Village applies a pesticide, the work is completed by a reputable contractor who holds a State of Illinois Pesticide Applicator's License. A pesticide application is most effective during the appropriate lifecycle stage, thus reducing the chance for repeat applications. Management practices have been used in the Village's turf maintenance, tree preservation and mosquito abatement programs.

The IPM Process



2. Turf Maintenance

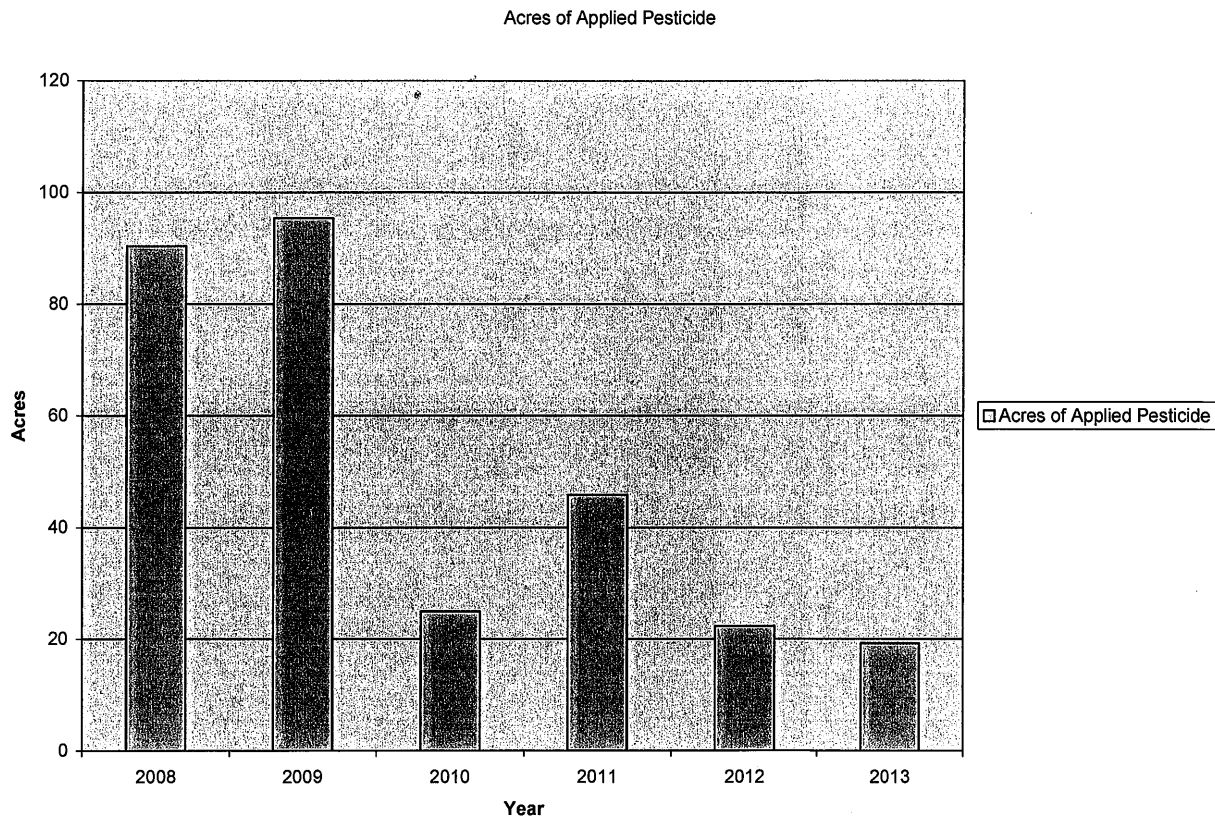
Maintaining turf is an ever changing process as new techniques are constantly being developed. Meticulous notes are extremely important when developing a turf maintenance program. The Village continues to take notes on turf conditions and all treatments used to improve or maintain turf grass. In 2013, the Village used non-organic pesticides and fertilizers as needed. In 2009 pesticides were applied to ninety five acres of Village green space. In 2013 the number of acres applied with pesticides has been reduced to nineteen, an eighty percent reduction. Three essential factors to consider when maintaining turf grass are **soil**, **seed** and **water**. All of these factors can be addressed first without the use of chemicals.

A critical component to consider when evaluating the health of any plant including turf grass is the **soil**. The Village conducts soil analysis tests on areas where turf grass is deficient and the underlying issues are not apparent. The analysis outlines what nutrients are available in the soil for plant growth. The test also includes soil pH and texture. The results show if a lawn is deficient in nutrients which could be corrected with fertilizer. A good soil composition contains 25% pore (air) space, 25% water and 50% soil solids. Soils in northern Illinois typically contain small clay particles which reduces pore space. Limited pore space adversely affects drainage. Stress occurs to plant roots when soil pore spaces are filled with water which is the result of poor drainage. The Village addresses poor soil composition and texture through top dressing and aerating. Aerating alleviates soil compaction by increasing soil pore space. Aeration is conducted by Village staff on green spaces. Aerating is extremely important for heavily used areas such as athletic fields. Top dressing areas with organic materials help improve soil quality. Organic materials in the soil have countless benefits. The combination of top dressing and aerating help alleviate clay issues and improve the soil composition. The IPM manager shall coordinate with the Parks and Recreation staff to ensure top dressing projects will not interfere with scheduled athletics.

The Village uses various **seed** blends to achieve success in quality turf. Seed is chosen based on soil structure, water availability and use of green space. Most of our fields use a blend of Perennial Rye and Bluegrass. The Village staff is constantly exploring new seed introductions to achieve success. Hinsdale has been aerating and over seeding for many seasons with positive results. Village staff spread over 750lbs of grass seed in 2013. Blue grass blends were used on athletic fields while fescue blends were used on other locations. Fescue blends have tolerate some shade while requiring less moisture. Replacing spent grass plants helps prevent weeds from establishing. A diverse mixture of grass plants helps protect turf from adverse conditions and pests.

Water is essential for any plant to grow and turf grass is no exception. Turf requires at least two inches of water every week. Rain was excessive in the Spring of

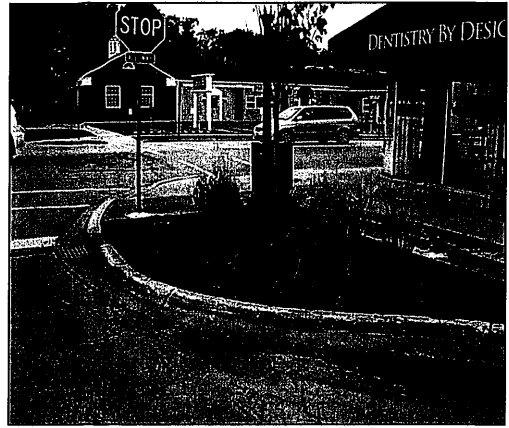
2013 followed up by drought conditions during the summer months. Drought conditions over the summer of 2013 significantly stressed Village turf areas. Some turf was allowed to become dormant in the summer heat and re-establish when conditions are right in the fall. Irrigated areas held up much stronger in the summer drought. Aerating and over seeding will help reestablish areas affected by the drought. Staff will continue aerating and over seeding during the spring of 2014 to help damaged green space recover.



3. Sustainable Landscaping

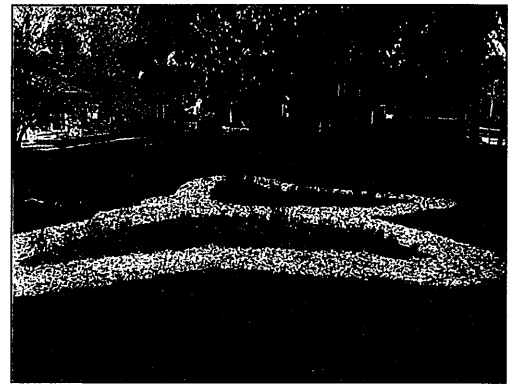
In May of 2012 Village staff converted 13 of 38 business district planting beds to sustainable landscaping. The Village did not have to purchase annual plants for these 13 beds in the spring of 2013. This annual savings on spring bulbs and annual flowers will amount to approximately \$4,000. Additionally, sustainable plants require less maintenance which saves the Village water and man hours. Staff installed shredded hardwood mulch in these beds in the fall of 2013. Mulch will further reduce the amount of labor necessary to maintain these beds. Mulched beds yield fewer weeds and simplify hand weeding.

In September 2013, Village staff constructed a new planting bed on the southeast corner of Chicago Ave and Lincoln Street. This planting bed helps establish uniformity between the southern and northern sections of the business district. The base plantings of this bed are sustainable. It includes a Japanese Tree Lilac, Boxwood shrubs, Viburnum shrubs and perennial plants and grasses. Spring flowering bulbs have also been installed. This bed will serve as a combination planting which will include the sustainable landscaping in addition to summer flowering annuals. If successful the Village could convert the remaining 25 annual beds to this type of combination planting. Benefits would include a reduction in annual cost for plant material and time spent on installation and watering. Progress will be documented throughout 2014 including seasonal pictures and presented to the EPS committee for further investigation.



Planting Bed on Lincoln St and Chicago Ave

Girl Scout Troop 1207 installed a butterfly garden at Ehert Park in June 2013. The Girl Scouts worked with Wingreen Landscapes and Village staff to complete this project. With the help of a Wingreen Landscape architect the troop designed a garden with many native plantings ideal for butterflies. The garden is also designed in the shape of a butterfly. The garden is an excellent addition to the park and it was quality learning experience for the troops.



Ehert Park butterfly garden

As part of the Woodlands reconstruction project various rain gardens were installed in the Spring of 2013. The gardens are filled with native plantings which help absorb rain water run off. A Village contractor will be maintaining these beds until fall of 2014. Maintenance includes plant establishment, pruning, replacing perished plant material and to monitor overall plant health. These plantings will take a few years to fully establish. Village staff will monitor Encap, the contractor, until maintenance duties are taken over in 2015.

4. Prairie Maintenance



Jackson St prescribed burn on April 5th, 2013

Staff conducted prescribed prairie burns for The Charleston Road Aquatic Garden and The Jackson Street Prairie in April 2013. Prescribed burns are an effective form of weed control and also helps invigorate native plants. Positive results were shown as native plants began to establish by June. A permit to burn before November 13th, 2014 has already been granted by the Illinois EPA.

5. Tree Preservation

On February 22, 2011, the Illinois Department of Agriculture (IDOA) confirmed an infestation of Emerald Ash Borer (EAB) in Hinsdale. EAB is a small, metallic green beetle native to Asia. Since EAB was discovered in Michigan in 2002, more than 20 million ash trees have been lost. The Village of Hinsdale has an estimated 14,860 trees on public property. This includes parkways, parks, street islands, alleys, and public easements. Of this total tree population there is approximately 1,600 trees in the ash group (green, white, and European ash) that are susceptible hosts to EAB, roughly 11% of the population. There are as many or more ash trees on private property. Few if any areas in the Village do not have ash trees in the parkways or lawns. Therefore the impact of tree loss caused by EAB may be felt by all residents.

The Village has been managing the threat of EAB in several ways: education and extension, incorporating management of the pest into the forestry program, and continued communication with other municipalities that have confirmed presence or are threatened by EAB infestation to examine their response to EAB in order to develop management strategies for Hinsdale.

In 2013, the Village treated 449 Ash trees with insecticides. These trees were treated either by soil injection or basal injection. Village staff is also working with the Morton Arboretum and the Illinois Department of Agriculture to generate new methods for controlling the insect. There is valuable information about this destructive pest included in this report. The Village has removed 270 ash trees due to EAB infestation this year and 322 infested ash since the pest has been distracted.

The Village lost 20 public elm trees and 32 private elm trees in 2013. Hinsdale treated 425 elms with fungicide. The loss of elm trees treated on a three year cycle has been minimal.

The number of trees planted in the Village increased in 2013. A total of 148 trees were planted. 88 trees were planted through the Village's annual planting program, 86 trees were planted through a grant of \$10,000 awarded to the Village, 11 trees were planted by residents through the reimbursement program, 7 trees were planted by Village crews in the Central Business District, 4 trees were planted through the Tribute Tree program and 3 trees were planted for Arbor Day celebrations.

Tree Removal History

YEAR	DED	EAB	OTHER	TOTAL
2013	22	270	121	413
2012	27	42	146	215
2011	12	13	102	127
2010	13		93	106
2009	60		80	140
2008	56		140	196
2007	97		79	176
2006	175		167	342
2005	110		299	409
2004	178		191	369
2003	175		244	419
2002	102		200	302
2001	169		200	369
2000	102		202	304
1999	107		unknown	107
1998	101		unknown	101
1997	121		unknown	121
1996	57		131	188
1995	193		unknown	193
1994	70		181	251
1993	55		unknown	55
1992	63		149	212
1991	119		116	235
1990	57		204	261
1989	44		149	193
1988	143		unknown	143
TOTAL	2428	55	3194	5947

Public Elm Injections

2006	21
2007	515
2008	466
2009	436
2010	225
2011	429
2012	326
2013	425

Public Ash Injections

2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	420
2013	449

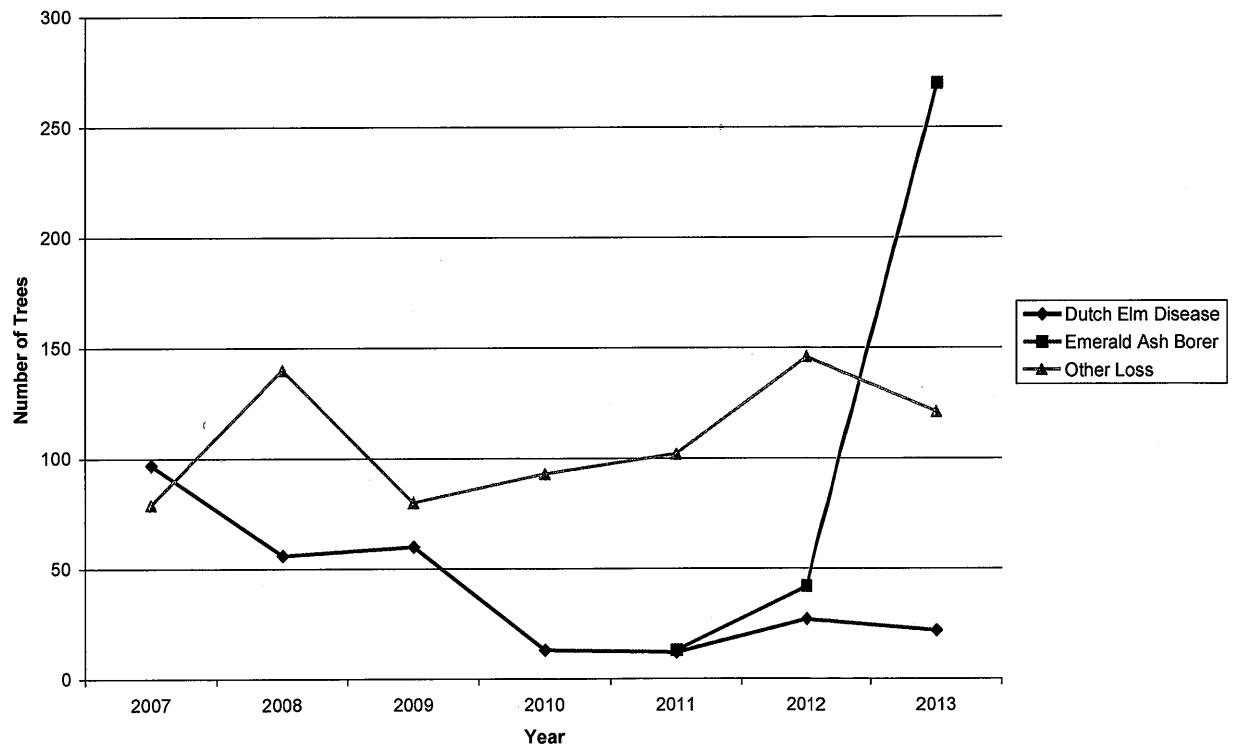
Tree Planting

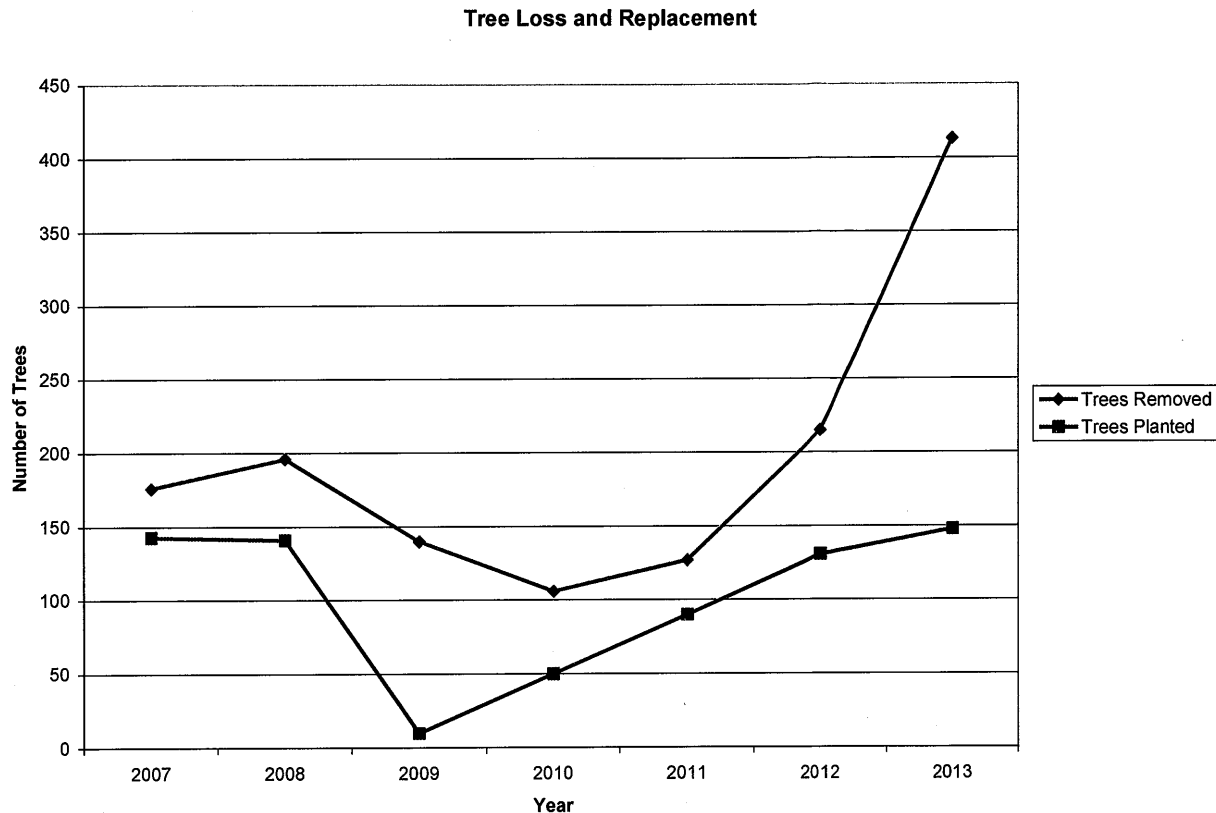
2013 Breakdown

Spring	86
Grant	37
Resident	11
Tribute	4
Arbor Day	3
CBD	7
TOTAL	148

2007	143
2008	141
2009	10
2010	50
2011	90
2012	131
2013	148
TOTAL	565

Cause of Tree Removal





6. Mosquito Abatement

The Village's mosquito management program is completed by Clarke Mosquito Management, Inc. for the areas on DuPage County and the Desplaines Valley Mosquito Abatement District for the areas in Cook County. Mosquito abatement services which include surveillance, monitoring, larva and adult control as needed began in May and continued through September. Cases of West Nile Virus declined in 2013. A total of 112 human cases occurred in Illinois. There were 56 cases in Cook County and DuPage County reported 7 cases.

Clarke Mosquito Management has introduced a new portfolio of larvicides that contain naturally derived active ingredients. The product is named Natular and contains Spinosad, a product derived from a naturally occurring soil bacterium. Spinosad alters the function of insect receptors. Natular is the first larvacide evaluated as a Reduced Risk product by the EPA. Village staff will continue gathering information regarding this product and may elect its use in 2014 upon further review by the EPS committee.

7. 2014 Recommendations

Turf Maintenance:

1. Continue with grounds maintenance contracts for mowing and fertilizing
2. Continue using corn gluten meal and Burn Out II as non-toxic herbicides
3. Continue education on natural lawn care through various educational materials.
4. Further develop relationships within the industry to discuss new and innovative methods for naturally controlling pests.
5. Continuing expanding soil testing to develop a long term soil amendment program.
6. Approve the use of TriPower chemical pesticide for fall 2014 application as necessary.
7. Reduce irrigation on certain athletic fields when use subsides during summer months. Turf can remain dormant until fall athletics begin.
8. Continue testing new grass seed varieties for drought tolerance and pest resistance.

Sustainable Landscaping:

1. Monitor the aesthetic appearance of the 13 sustainable planting beds in the business district and replace perished material as necessary.
2. Continue pruning sustainable plants and shrubs to encourage vigorous growth.
3. Incorporate sustainable plants to the KLM entrance beds in the spring of 2014.
4. Combine perennial (sustainable) and annual plantings to the Lincoln St and Chicago Ave planting bed and document progress.
5. Continue working with Girl Scout troops to monitor the health and appearance of the Ehert Park butterfly garden.
6. Work with Village contractor Encap to monitor the health and appearance of the Woodlands rain gardens. Ensure any perished plant material is replaced per contract agreement.

Prairie Maintenance:

1. Conduct prescribed burns at Charleston Rd. aquatic garden and Jackson St. prairie in spring 2014.

Trees:

1. Continue Emerald Ash Borer injections and document results.
2. Continue elm preservation program.

Mosquito Abatement:

1. Investigate new environmentally sensitive mosquito controls and present to EPS for review.

Other:

1. Introduce Ehert Park as a pesticide free park and apply corn gluten meal in Spring of 2014.
2. Seek assistance from outside groups such as local scout troops and Community Services to reestablish the portion of Pierce Park behind the Wellness House as an appealing public vegetable garden.
3. All planting beds in the business district are currently watered by hand during the growing season. Staff is obtaining prices to install irrigation in the business district planting beds where water is readily available. Obtain price quotes to have self watering planting beds installed and present to EPS committee for review.

8. Annual Pest Management Review Meeting

The November 1995 ordinance requires an annual review meeting to be held by the Environment and Public Services committee sometime before the end of February. The tentative date for this meeting will be Monday, February 10th, 2014. As the acting Pest Management Coordinator, I ask that any technical or scientific questions regarding the compliance report be submitted in writing, no less than seven days before the IPM Review Meeting. It is appropriate that the EPS Committee make a motion to approve the report. Proper notice will be given.

9. Proposed 2014 IPM Maintenance Schedule

February 10th, 2014

- a. IPM Annual Review Meeting

March 3rd, 2014

- a. Seek permission to conduct prairie burns
- b. Submit prairie burn notification to Village of Hinsdale newspaper of general circulation
- c. Notify neighboring residents of upcoming prairie burns

March 13th, 2014

- a. Conduct prairie burns on Jackson St and Charleston Rd (weather permitting)

April 1st, 2014

- a. Begin aeration program
- b. Over seed depleted turf areas
Rate: Varies per application

- c. Continue corn gluten meal testing
 - 1. Ehert Park turf
- d. Ash tree soil injections
 - Type: Xytect (EPA Reg 42750-117-74779)
 - Rate: 1.6 oz per 24-48" diameter

April 14th, 2014

- a. Spring Fertilization Program
 - 1. Apply as needed based on action thresholds
 - Type: Lesco 32-0-16
 - Rate: 0.5lbs N/1000ft²

June 1st, 2014

- a. Elm tree inoculation program
 - Type: Arbortech (EPA Reg 100-892)
 - Rate: 12 fl oz per 5 inches of diameter
- b. Ash tree injections
 - Type: Tree-äge (EPA Reg 100-1309-74578)
 - Rate: 10-15 ml of product per inch of diameter
- c. Mosquito abatement program
 - Type: VectoBac (EPA Reg 2724-375)
 - Rate: 0.25-2qts/acre
 - Type: Altosid (EPA Reg 1021-1688-8329)
 - Rate: 1 briquet/100ft² up to 2 ft water depth
 - Type: Anvil (EPA Reg 1021-1688-8329)
 - Rate: 1.9 oz/min at 5mph
- d. Second round of aeration program

August 1st, 2014

- a. Third round of aeration program
- b. Over seed depleted turf areas
 - Rate: Varies per application
- c. Athletic field maintenance
 - 1. Top dress resting athletic fields with organic materials

September 15th, 2014

- a. Fall fertilization program
 - 1. Apply as needed based upon action thresholds
 - Type: Lesco 24-0-16
 - Rate: 1lbs N/1000ft²

November 1st, 2014

- a. Fourth round aeration program
- b. Dormant seed depleted turf areas
Rate: Varies per application
- c. Late fall fertilization program (excluding seeded areas)
Type: Lesco 32-0-16
Rate: 1.5lbs/1000ft²

10. Turf Condition Rating Summary

Unlike separate plots of farmland whose crops can be weighed and compared, turf areas are evaluated by the way they look, not what they produce. By definition any rating will be subjective. However, horticulturalists and other turfgrass professionals have developed a numerical rating system by which, plots of different grass seed mixes are compared in the National Turf Evaluation Program (NTEP). Several attributes of turf are rated on a 10-point scale then averaged together to create an overall number, which is used in comparisons, of for example, new variations of bluegrass.

Staff took a simplified approach, using only three attributes – turf density, weed content and overall appearance. Each attribute is rated from one (way below average) to 5 (way above average). Each turf area is classified by its use: high visibility, athletic, passive with foot traffic, passive without foot traffic or other.

Since 1996 sub-areas within locations have been identified and rated separately. A composite average equally weighing the three measures is computed next. An overall rating for each turf use is determined multiplying the sum of each place's rating average by its area and dividing by the total area of that turf use.

Here is a simple example of one turf type:

	Density	Weed	Appear.	Average	Area	Avg x Area
Park A	2	2	3	2.3	7 acres	16.1
Park B	3	3	3	3.0	1 acre	3.0
Bldg C	3	4	5	4.0	2 acres	8.0
					10 acres	27.1

Composite rating 27.1 = 2.71

10

Goals based upon the rating system were established in 1999. These are the ideals to which the turf management program strives, but they are also based in reality. Lawns of green carpet are not appropriate everywhere. Next the objectives, the practical gauges by which progress is assessed were set. Neither the goals nor the objectives should change often. Maybe in time, sights can be set higher.

The goals are as follows:

- High visibility areas shall be treated to maintain a well above average rating (4.0).
- Athletic areas shall be treated to maintain an above average rating (3.5).
- Passive areas with foot traffic shall be treated to maintain an above average rating (3.5).
- Passive areas without foot traffic shall be treated to maintain an average rating (3.0).
- Other areas shall be treated as appropriate to their use.

The objectives are based on a three-year basis and are 80% of the goals. They are:

- | | |
|--------------------------------|----------------|
| • High visibility | 3.2 |
| • Athletic | 2.8 |
| • Passive with foot traffic | 2.8 |
| • Passive without foot traffic | 2.4 |
| • Other | as appropriate |

The above numbers represent the action threshold. An action threshold is the point at which an IPM Coordinator should take action to improve the turf quality by increasing turf density, decreasing weed population, and/or improving overall appearance. Any area that falls below the action threshold should receive attention to bring the levels up to or above the action threshold. Methods that can help bring levels up to action threshold include: aerating, fertilizing (organic/inorganic), top dressing, overseeding, and weed control (organic/chemical).

Staff has discussed this methodology with its turf consultant, Dr. Fermanian. He thought the approach was reasonable and agreed that a three-year average is a long enough time frame to judge progress. Individual seasons of extreme weather may tilt study lengths of shorter duration.

The object of a turf management program is stability over time. Any activity influenced by weather will see periodic advances and declines. The goals and objectives allow the Village to look past the seasonal battles over turf growth to assess its long-term programmed approach reflected in the IPM policy. An analysis using these tools will reveal long-range trends.

11. Grounds Maintenance History

		SPR	FAIL	SPR	FAIL	SPR	FAIL	SPR	FAIL	SPR	FAIL	SPR	FAIL	SPR	FAIL	SPR	FAIL	SPR	FAIL	SPR	FAIL	SPR	FAIL
		2003	2003	2004	2004	2005	2005	2006	2006	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011	2012	2012	2013	2013
1	MEMORIAL BUILDING																						
	NORTH	AF	AFWS	AF	F	AF	AF	AF	AF	S	AF	WA	FAS	AFW	AF	AFS	AFWS			AFW	AFS	AFWS	
	SOUTH	AF	AF	AF	FWS	AF	AF	AF	AF		AF	WA	FAS	AFWO	AFO	AFOS	AFWS			AFW	AFOS	AFWS	
2	BURLINGTON PARK	AF	const	AF	AF	WAFS	AO	AF	AF		AF	WA	FAS	AFW	AF	AF	AFWS			FW	AF	AFW	
3	SYMONDS DRIVE	F	F	F	F	WF	F	WSF					F	FW	F	F	F				F	FW	
4	POLICE/FIRE BRIDGE	F	FW	F	F	F	F	F	F	F	F	A	WFS	AF	AFW	F	F			F	F	FW	
5	WATER PLANE																					FW	
	WEST OF PLANT	F	F	F	F	F	F	F	F		F		WAF	AF	AF	F	F				F		
	SALONG SYMONDS	F	F	F	F	F	F	F					WF	AF	AF	F	F				F		
	UNOVER RESERVOIR	F	F	F	FWS	F	F	F	F		F	A	WAF	AF	AFS	AF	AF				F		
6	CPW GARAGE	F	F	F	F	WFS	F	WSF			F		WF	F	F	F	F				F		
7	BRUSH HILL	F	F	F	F	F	F	F	F		F	A	WAFS	AF	AFW	AF	AF				F	F	
8	PEIRCE PARK																						
	EAREAST N	AF	WSF	F	FWS	AF	AF	AF	AF	A	AF		A	F	F	F	AF			AF	F	FW	
	NEAREAST N	AF	WSF	F	FWS	AF	AF	AF	AF	A	AF		A	F	F	F	AF			AF	F	FW	
	EAREAST S	AF	WSF	F	F	AF	AO	AO	AO	A	F		A	F	F	F	AF			AF	F	FW	
	NEAREAST S	AF	WSF	F	F	AF	AO	AO	AO	A	AF		A	F	F	F	AF			AF	F	FW	
	PASSWEARDA	F	F	F	F	F	F	F	F		F	A	WA	F	AFS	F	AF			AF	F	FW	
	WESTFIELD	AF	F	F	F	AF	AF	AF	AF	A	F		A	F	F	F	AF			AF	F	FW	
9	SPAVINE & CRTZ LINE	F	F	F	F	F	F	F	F		F		F	FW	F	F	F				F		
10	SPAVINE & OAK	F	F	F	F	F	F	F	F		F		F	FW	F	F	F						
11	YORK & WALKER	F	F	F	F	F	O	F	F		F												
12	MADISON & GOGDEN	F			F		F		F		F												
13	BURNSFIELD																						
	ICERINK				S							W	FA	AF	AF	F	AFWS				AF	F	
	SOCCEAREAS	AF	F	F	FWS	AF	WAFS	WASF		S	AFS	W	FA	AF	AF	F	AFWS				AF	F	
	PLAYGROUND	F	WS	F	F	F	F	F			F		A	AF	AF	F	AF				F	F	
	FRINGE	F	WSF	F	FWS	F	WFS	WSF			F	W	A	AF	AF	F	AFW				F	F	
14	STOUGH PARK																						
	ICERINK																						
	RAILROAD BANK	F	WSF	F	FWS	AF	F	F		S	AFS	A	WAF	AF	AF	F	AFWS			AFS	F	AFS	

12. Acres of Activity

	2007	2008	2009	2010	2011	2012	2013							
	FALL	FALL	FALL	FALL	FALL	FALL	FALL							
	2007	2008	2009	2010	2011	2012	2013							
FERTILIZATION	0.0	132.7	0.0	114.3	130.4	130.8	122.3	130.8	120.3	120.3	90.9	20.4	79.3	
WEED CONTROL	0.0	0.0	43.0	47.3	31.9	63.4	0.0	24.9	0.0	45.8	0.0	22.3	0.0	19.2
SEEDING	0.0	13.2	1.6	24.0	23.0	63.7	10.4	66.3	42.9	93.3	61.5	81.6	0.0	8.0
AERATE	45.7	38.0	50.9	119.8	111.4	111.4	9.1	112.2	28.2	106.7	38.7	90.9	3.7	18.0

13. Turf Evaluations

May-13

	Site Location	Turf Density	Weed Population	Appearance	Action Threshold	Rating	Recmd.
MEMORIAL BUILDING							
HV	NORTH	3	3	3	3.2	3.00	A,F,S
HV	SOUTH	3	3	3	3.2	3.00	A,F,S
HV	BURLINGTON PARK	4	4	4	3.2	4.00	A,F,S
P	SYMONDS DRIVE	2	2	2	2.4	2.00	A,F,S
HV	POLICE/FIRE BLDG	3	3	3	2.8	3.00	A,F,S
WATER PLANT							
HV	WEST OF PLANT	3	3	3	2.8	3.00	A,F
P	S ALONG SYMONDS	3	2	3	2.4	2.67	A,F
PF	RESERVOIR	3	3	3	2.8	3.00	A,F
P	PUB WORKS GARAGE	2	2	2	2.4	2.00	A,F,S
P	BRUSH HILL	2	3	2	2.4	2.33	A,F,S
PEIRCE PARK							
A	FAR EAST FIELDS	4	3	4	2.8	3.67	A,F
A	NEAR EAST FIELDS	4	3	4	2.8	3.67	A,F
PF	PASSIVE AREAS	2	3	3	2.8	2.67	A,F,S
A	WEST FIELD	4	3	3	2.8	3.33	A,F
P	RAVINE & CTY LINE	3	3	3	2.4	3.00	A,F
P	RAVINE & OAK	3	3	3	2.4	3.00	A,F
P	YORK & WALKER	1	2	1	2.4	1.33	A,S
P	MADISON @ OGDEN	2	1	1	2.4	1.33	A,S
BURNS FIELD							
A	ICE RINK	1	3	2	2.8	2.00	A,F,S
A	SOCCER AREA	4	3	4	2.8	3.67	A,F
A	PLAYGROUND	4	3	4	2.8	3.67	A,F
PF	FRINGE	4	3	4	2.8	3.67	A,F
STOUGH PARK							
A	ICE RINK	3	3	3	2.8	3.00	A,F
O	RAILROAD BANK	1	2	2	2.4	1.67	A,F
PF	EAST PASSIVE	2	3	3	2.8	2.67	A,F,S
PF	CENTRAL PASSIVE	3	3	3	2.8	3.00	A,F
PF	W HINSDALE STA	2	2	2	2.8	2.00	A,F,S,W
P	JACKSON: 4TH - 8TH	2	3	3	2.4	2.67	A,F,S
P	JACKSON PRAIRIE	3	3	3	2.4	3.00	A,S
A	MELIN PARK	4	4	4	2.8	4.00	A,S
A	DIETZ PARK	3	4	3	2.8	3.33	A,F
ROBBINS PARK							
A	NE - NORTH	2	3	3	2.8	2.67	A,F,S
A	NE - SOUTH	2	3	3	2.8	2.67	A,F,S
A	CENTRAL	2	3	2	2.8	2.33	A,F,S
A	SOUTHWEST	2	3	3	2.8	2.67	A,F,S
PF	PARKWAYS	3	4	3	2.8	3.33	A,S
A	FOOTBALL	2	3	2	2.8	2.33	A,F,S

May-13

	Site Location	Turf Density	Weed Population	Appearance	Action Threshold	Rating	Recmd.
SWIMMING POOL							
PF	NORTH	3	3	3	2.8	3.00	A,F
PF	SOUTH	3	3	3	2.8	3.00	A,F
A	WEST	3	4	3	2.8	3.33	A,F
PF	EHRET PARK	2	2	2	2.8	2.00	A,F,S
P	HINS: STOUGH - GARF	1	2	2	2.4	1.67	A,F,S,W
HV	ELEANOR'S PARK	4	3	4	3.2	3.67	A,F
P	CHICAGO @ BNRR	3	3	3	2.4	3.00	A,F
HIGHLAND PARK							
PF	PASSIVE	3	3	3	2.8	3.00	A,F
PF	PARKWAYS	2	1	3	2.8	2.00	A,F,W,S
A	VEECK PARK	4	3	3	2.8	3.33	A,S
P	CHICAGO @ PRINCE	3	4	4	2.4	3.67	A,F
P	1ST & PRINCETON	2	3	3	2.4	2.67	A,F
P	3RD & PRINCETON	3	3	3	2.4	3.00	A,F
P	COLUMBIA: 1ST - 3RD	3	4	3	2.4	3.33	A,F
BROOK PARK							
A	PLAYING FIELD	2	3	3	2.8	2.67	A,F
PF	FRINGE AREAS	3	3	3	2.8	3.00	A,F,S
PF	6TH & PRINCETON	3	3	3	2.8	3.00	A,F
P	7TH & HARDING	3	3	3	2.4	3.00	A,F
PF	WOODLAND PARK	3	3	3	2.8	3.00	A,F
O	TAFT @ 55TH	1	1	1	n/a	n/a	n/a
P	7TH & WILSON		N/A Construction		n/a	n/a	n/a
O	CLEVELAND @ 55TH	1	1	1	n/a	n/a	n/a
PF	WOODLAND DR ISLES	3	3	3	2.8	3.00	A,F
P	DALEWOOD ISLAND	3	3	3	2.4	3.00	A,F
P	COUNTY LINE CT	1	1	1	n/a	n/a	n/a
O	PAMELA CIRCLE		n/a		n/a	n/a	n/a
PF	CHARLESTON RD	3	3	3	2.8	3.00	A,F
KLM PARK							
HV	NEAR BUILDINGS	3	3	3	3.2	3.00	A,F,S
HV	CONCERT HILL	4	3	3	3.2	3.33	A,F
A	NORTH OF CREEK	3	3	3	2.8	3.00	A,F,S
A	EAST PLAY AREA	3	3	3	2.8	3.00	A,F
PF	SOUTH OF ROAD	2	3	3	2.8	2.67	A,F,S
PF	4TH ST ISLANDS	3	3	3	2.8	3.00	A,F
P	OAK @ 9TH	2	2	1	n/a	n/a	n/a
P	ELM ; 9TH - 55TH	3	2	3	2.4	2.67	A,F
PF	WASHINGTON CIRC	3	3	3	2.8	3.00	A,F
O	WASHINGTON LOT	1	1	1	2.8	1.00	A,F,W,S
PF	PARKWAYS @ HMS	2	1	1	2.8	1.33	A,F,W,S
O	LINCOLN LOT	1	1	1	2.8	1.00	A,F,W,S
O	VILLAGE LOT	1	1	1	2.8	1.00	A,F,W,S
O	W OF POST CIRCLE	1	1	1	2.8	1.00	A,F,W,S
A	DUNCAN FIELD	3	2	2	2.8	2.33	A,F,S



= Area has a rating that falls below the Action
Threshold. Action should be taken to remedy this.

A = Aerate

F = Fertilize

S = Seed

W = Weed Control

July-13

	Site Location	Turf Density	Weed Population	Appearance	Action Threshold	Rating	Recmd.
MEMORIAL BUILDING							
HV	NORTH	2	3	3	3.2	2.67	A,F,W,S
HV	SOUTH	3	2	3	3.2	2.67	A,F,W,S
HV	BURLINGTON PARK	3	2	3	3.2	2.67	A,F,W,S
P	SYMONDS DRIVE	2	1	2	2.4	1.67	A,F,W,S
HV	POLICE/FIRE BLDG	3	2	2	2.8	2.33	A,F,W,S
WATER PLANT							
HV	WEST OF PLANT	4	4	4	2.8	4.00	A,S
P	S ALONG SYMONDS	2	2	2	2.4	2.00	A,F
PF	RESERVOIR	3	3	3	2.8	3.00	A,S
P	PUB WORKS GARAGE	2	3	3	2.4	2.67	A,S
P	BRUSH HILL	2	3	2	2.4	2.33	A,F,S
PEIRCE PARK							
A	FAR EAST FIELDS	3	2	3	2.8	2.67	A,F,W,S
A	NEAR EAST FIELDS	3	3	3	2.8	3.00	A,S
PF	PASSIVE AREAS	3	2	2	2.8	2.33	A,F,W,S
A	WEST FIELD	3	2	2	2.8	2.33	A,F,W,S
P	RAVINE & CTY LINE	3	3	3	2.4	3.00	A,S
P	RAVINE & OAK	2	3	3	2.4	2.67	A,S
P	YORK & WALKER	2	2	2	2.4	2.00	A,S
P	MADISON @ OGDEN	1	2	1	2.4	1.33	A,S
BURNS FIELD							
A	ICE RINK	2	3	2	2.8	2.33	A,F,S
A	SOCCER AREA	4	3	4	2.8	3.67	A,S
A	PLAYGROUND	3	3	3	2.8	3.00	A,S
PF	FRINGE	3	3	3	2.8	3.00	A,S
STOUGH PARK							
A	ICE RINK	4	3	3	2.8	3.33	A,S
O	RAILROAD BANK	2	2	2	2.4	2.00	A,S
PF	EAST PASSIVE	3	3	3	2.8	3.00	A,S
PF	CENTRAL PASSIVE	3	3	3	2.8	3.00	A,S
PF	W HINSDALE STA	2	1	1	2.8	1.33	A,F,W,S
P	JACKSON: 4TH - 8TH	3	3	3	2.4	3.00	A,S
P	JACKSON PRAIRIE	3	4	4	2.4	3.67	A,S
A	MELIN PARK	4	4	4	2.8	4.00	A,S
A	DIETZ PARK	3	4	3	2.8	3.33	A,S
ROBBINS PARK							
A	NE - NORTH	3	3	3	2.8	3.00	A,S
A	NE - SOUTH	3	2	3	2.8	2.67	A,F,S
A	CENTRAL	2	3	3	2.8	2.67	A,F,S
A	SOUTHWEST	3	3	3	2.8	3.00	A,S
PF	PARKWAYS	3	3	3	2.8	3.00	A,S
A	FOOTBALL	3	3	3	2.8	3.00	A,S

July-13

	Site Location	Turf Density	Weed Population	Appearance	Action Threshold	Rating	Recmd.
SWIMMING POOL							
PF	NORTH	3	3	3	2.8	3.00	A,S
PF	SOUTH	3	3	3	2.8	3.00	A,F,S
A	WEST	4	3	3	2.8	3.33	A,F,S
PF	EHRET PARK	2	2	2	2.8	2.00	A,S
P	HINS: STOUGH - GARF	2	2	2	2.4	2.00	A,S
HV	ELEANOR'S PARK	4	3	4	3.2	3.67	A,S
P	CHICAGO @ BNRR	2	1	2	2.4	1.67	
HIGHLAND PARK							A,S
PF	PASSIVE	3	3	3	2.8	3.00	A,S
PF	PARKWAYS	2	1	2	2.8	1.67	A,S
A	VEECK PARK	3	4	3	2.8	3.33	A,S
P	CHICAGO @ PRINCE	3	4	4	2.4	3.67	A,F,W,S
P	1ST & PRINCETON	2	3	3	2.4	2.67	A,S
P	3RD & PRINCETON	3	3	3	2.4	3.00	A,F,W,S
P	COLUMBIA: 1ST - 3RD	3	4	3	2.4	3.33	
BROOK PARK							A,F,S
A	PLAYING FIELD	3	2	3	2.8	2.67	A,F,W,S
PF	FRINGE AREAS	3	4	3	2.8	3.33	A,S
PF	6TH & PRINCETON	3	3	3	2.8	3.00	A,S
P	7TH & HARDING	3	3	3	2.4	3.00	A,S
PF	WOODLAND PARK	3	3	3	2.8	3.00	A,S
O	TAFT @ 55TH	1	1	1	n/a	n/a	A,S
P	7TH & WILSON		n/a		n/a	n/a	
O	CLEVELAND @ 55TH	1	1	1	n/a	n/a	A,F,S
PF	WOODLAND DR ISLES	3	3	3	2.8	3.00	A,S
P	DALEWOOD ISLAND	3	3	3	2.4	3.00	A,S
P	COUNTY LINE CT	1	2	1	n/a	n/a	N/A
O	PAMELA CIRCLE		n/a		n/a	n/a	N/A
PF	CHARLESTON RD	3	3	3	2.8	3.00	A,S
KLM PARK							
HV	NEAR BUILDINGS	3	4	4	3.2	3.67	A,S
HV	CONCERT HILL	4	3	3	3.2	3.33	A,S
A	NORTH OF CREEK	4	3	3	2.8	3.33	A,S
A	EAST PLAY AREA	3	3	3	2.8	3.00	A,S
PF	SOUTH OF ROAD	3	3	3	2.8	3.00	A,S
PF	4TH ST ISLANDS	3	3	3	2.8	3.00	A,S
P	OAK @ 9TH	2	2	1	n/a	1.66	A,S
P	ELM ; 9TH - 55TH	3	2	3	2.4	2.67	A,S
PF	WASHINGTON CIRC	3	3	3	2.8	3.00	A,S
O	WASHINGTON LOT	1	1	1	2.8	1.00	A,F,W,S
PF	PARKWAYS @ HMS	2	1	1	2.8	1.33	A,F,W,S
O	LINCOLN LOT	1	1	1	2.8	1.00	A,F,W,S
O	VILLAGE LOT	1	1	1	2.8	1.00	A,F,W,S
O	W OF POST CIRCLE	1	1	1	2.8	1.00	A,F,W,S
A	DUNCAN FIELD	3	2	2	2.8	2.33	A,S



= Area has a rating that falls below the Action Threshold. Action should be taken to remedy this.

A = Aerate

F = Fertilize

S = Seed

W = Weed Control

Nov-13

	Site Location	Turf Density	Weed Population	Appearance	Action Threshold	Rating	Recmd.
MEMORIAL BUILDING							
HV	NORTH	3	3	3	3.2	3.00	A,F,S
HV	SOUTH	4	3	3	3.2	3.33	A,F
HV	BURLINGTON PARK	3	4	4	3.2	3.67	A,F
P	SYMONDS DRIVE	3	3	3	2.4	3.00	A,S
HV	POLICE/FIRE BLDG	3	3	3	2.8	3.00	A
WATER PLANT							
HV	WEST OF PLANT	4	4	4	2.8	4.00	A
P	S ALONG SYMONDS	2	2	2	2.4	2.00	A,F,S
PF	RESERVOIR	4	3	3	2.8	3.33	A
P	PUB WORKS GARAGE	2	3	3	2.4	2.67	A
P	BRUSH HILL	2	3	2	2.4	2.33	A,F,S
PEIRCE PARK							
A	FAR EAST FIELDS	4	3	3	2.8	3.33	A,F
A	NEAR EAST FIELDS	4	4	4	2.8	4.00	A,F
PF	PASSIVE AREAS	3	4	3	2.8	3.33	A
A	WEST FIELD	4	3	3	2.8	3.33	A,F
P	RAVINE & CTY LINE	2	3	3	2.4	2.67	A,S
P	RAVINE & OAK	2	3	3	2.4	2.67	A,S
P	YORK & WALKER	2	2	2	2.4	2.00	A,S
P	MADISON @ OGDEN	1	1	1	2.4	1.00	A,S
BURNS FIELD							
A	ICE RINK	2	2	2	2.8	2.00	A,F,W,S
A	SOCCER AREA	4	4	4	2.8	4.00	A,F,S
A	PLAYGROUND	3	3	3	2.8	3.00	A,F
PF	FRINGE	4	4	3	2.8	3.67	A,F
STOUGH PARK							
A	ICE RINK	2	2	2	2.8	2.00	A,F,S
O	RAILROAD BANK	2	2	2	2.4	2.00	A,F,S
PF	EAST PASSIVE	3	3	3	2.8	3.00	A
PF	CENTRAL PASSIVE	4	3	3	2.8	3.33	A
PF	W HINSDALE STA	2	3	2	2.8	2.33	A,F,S
P	JACKSON: 4TH - 8TH	3	3	3	2.4	3.00	A
P	JACKSON PRAIRIE	3	3	3	2.4	3.00	A
A	MELIN PARK	4	3	3	2.8	3.33	A
A	DIETZ PARK	2	2	2	2.8	2.00	A,F,S
ROBBINS PARK							
A	NE - NORTH	3	3	3	2.8	3.00	A,F
A	NE - SOUTH	3	3	3	2.8	3.00	A,F
A	CENTRAL	2	3	3	2.8	2.67	A,F,S
A	SOUTHWEST	3	3	3	2.8	3.00	A,F
PF	PARKWAYS	4	3	4	2.8	3.67	A
A	FOOTBALL	2	3	3	2.8	2.67	A,F,S

Nov-13

	Site Location	Turf Density	Weed Population	Appearance	Action Threshold	Rating	Recmd.
SWIMMING POOL							
PF	NORTH	3	3	3	2.8	3.00	A
PF	SOUTH	3	3	3	2.8	3.00	A
A	WEST	4	3	3	2.8	3.33	A
PF	EHRET PARK	2	3	2	2.8	2.33	A,F,S
P	HINS: STOUGH - GARF	1	2	2	2.4	1.67	A,F,S
HV	ELEANOR'S PARK	4	3	3	3.2	3.33	A
P	CHICAGO @ BNRR	4	4	4	2.4	4.00	A
HIGHLAND PARK							
PF	PASSIVE	3	3	3	2.8	3.00	A
PF	PARKWAYS	3	3	3	2.8	3.00	A
A	VEECK PARK	1	4	2	2.8	2.33	A,F,S
P	CHICAGO @ PRINCE	4	4	4	2.4	4.00	A
P	1ST & PRINCETON	2	3	3	2.4	2.67	A,S
P	3RD & PRINCETON	2	3	3	2.4	2.67	A,S
P	COLUMBIA: 1ST - 3RD	3	3	3	2.4	3.00	A
BROOK PARK							
A	PLAYING FIELD	1	3	1	2.8	1.67	A,F,S
PF	FRINGE AREAS	3	4	4	2.8	3.67	A
PF	6TH & PRINCETON	4	3	3	2.8	3.33	A
P	7TH & HARDING	2	3	3	2.4	2.67	A
PF	WOODLAND PARK	2	3	3	2.8	2.67	A,S
O	TAFT @ 55TH	1	2	1	n/a	1.33	N/A
P	7TH & WILSON	3	3	3	n/a	3.00	A
O	CLEVELAND @ 55TH	1	1	1	n/a	1.00	N/A
PF	WOODLAND DR ISLES	3	3	3	2.8	3.00	A
P	DALEWOOD ISLAND	3	2	3	2.4	2.67	A
P	COUNTY LINE CT	1	2	2	n/a	1.67	N/A
O	PAMELA CIRCLE		n/a		n/a		N/A
PF	CHARLESTON RD	3	3	3	2.8	3.00	A
KLM PARK							
HV	NEAR BUILDINGS	2	3	3	3.2	2.67	A,F,S
HV	CONCERT HILL	4	3	3	3.2	3.33	A
A	NORTH OF CREEK	2	2	2	2.8	2.00	A
A	EAST PLAY AREA	3	3	3	2.8	3.00	A
PF	SOUTH OF ROAD	2	3	3	2.8	2.67	A,S
PF	4TH ST ISLANDS	4	3	3	2.8	3.33	A
P	OAK @ 9TH	2	2	2	n/a	2.00	A
P	ELM ; 9TH - 55TH	3	3	3	2.4	3.00	A
PF	WASHINGTON CIRC	2	3	3	2.8	2.67	A,S
O	WASHINGTON LOT	2	3	3	2.8	2.67	N/A
PF	PARKWAYS @ HMS	2	2	2	2.8	2.00	A,S
O	LINCOLN LOT	2	3	3	2.8	2.67	A,S
O	VILLAGE LOT	3	2	3	2.8	2.67	A,S
O	W OF POST CIRCLE	2	3	2	2.8	2.33	A,S
A	DUNCAN FIELD	3	2	3	2.8	2.67	A,S



= Area has a rating that falls below the Action Threshold. Action should be taken to remedy this.

A = Aerate

F = Fertilize

S = Seed

W = Weed Control

14. Weather Data

2012-2013 WEATHER DATA

2013 PRECIPITATION TOTALS IN INCHES

	AVERAGE	OBSERVED	
JAN 2013	1.73	3.63	210%
FEB 2013	1.79	2.96	165%
MAR 2013	2.50	2.00	80%
APR 2013	3.38		257%
MAY 2013	3.68	4.96	135%
JUNE 2013	3.45	6.23	181%
JULY 2013	3.70	2.22	60%
AUG 2013	4.90	1.69	34%
SEPT 2013	3.21	2.57	80%
OCT 2013	3.15	3.12	99%
NOV 2013	3.15	2.09	66%
DEC 2013	2.25	0.70	31%

ANNUAL TOTAL	36.89	40.85	111%
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2013 TEMPERATURES IN °F

	AVERAGE	OBSERVED	
JAN 2013	23.8	26.6	112%
FEB 2013	27.7	26.1	94%
MAR 2013	37.9	32.6	86%
APR 2013	48.9	46.9	96%
MAY 2013	59.1	61.0	103%
JUNE 2013	68.9	68.5	99%
JULY 2013	74.0	73.2	99%
AUG 2013	72.4	73.0	101%
SEPT 2013	64.6	67.2	104%
OCT 2013	52.5	53.1	101%
NOV 2013	40.3	37.5	93%
DEC 2013	27.7	22.9	83%

ANNUAL TOTAL	97.60%
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2012 PRECIPITATION TOTALS IN INCHES

	AVERAGE	OBSERVED	
JAN 2012	1.73	1.86	108%
FEB 2012	1.79	1.64	92%
MAR 2012	2.50	2.68	107%
APR 2012	3.38	1.65	49%
MAY 2012	3.68	4.38	119%
JUNE 2012	3.45	0.90	26%
JULY 2012	3.70	3.66	99%
AUG 2012	4.90	2.07	42%
SEPT 2012	3.21	1.76	55%
OCT 2012	3.15	3.15	100%
NOV 2012	3.15	0.95	30%
DEC 2012	2.25	2.21	98%

ANNUAL TOTAL	36.89	26.91	73%
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= RECORD

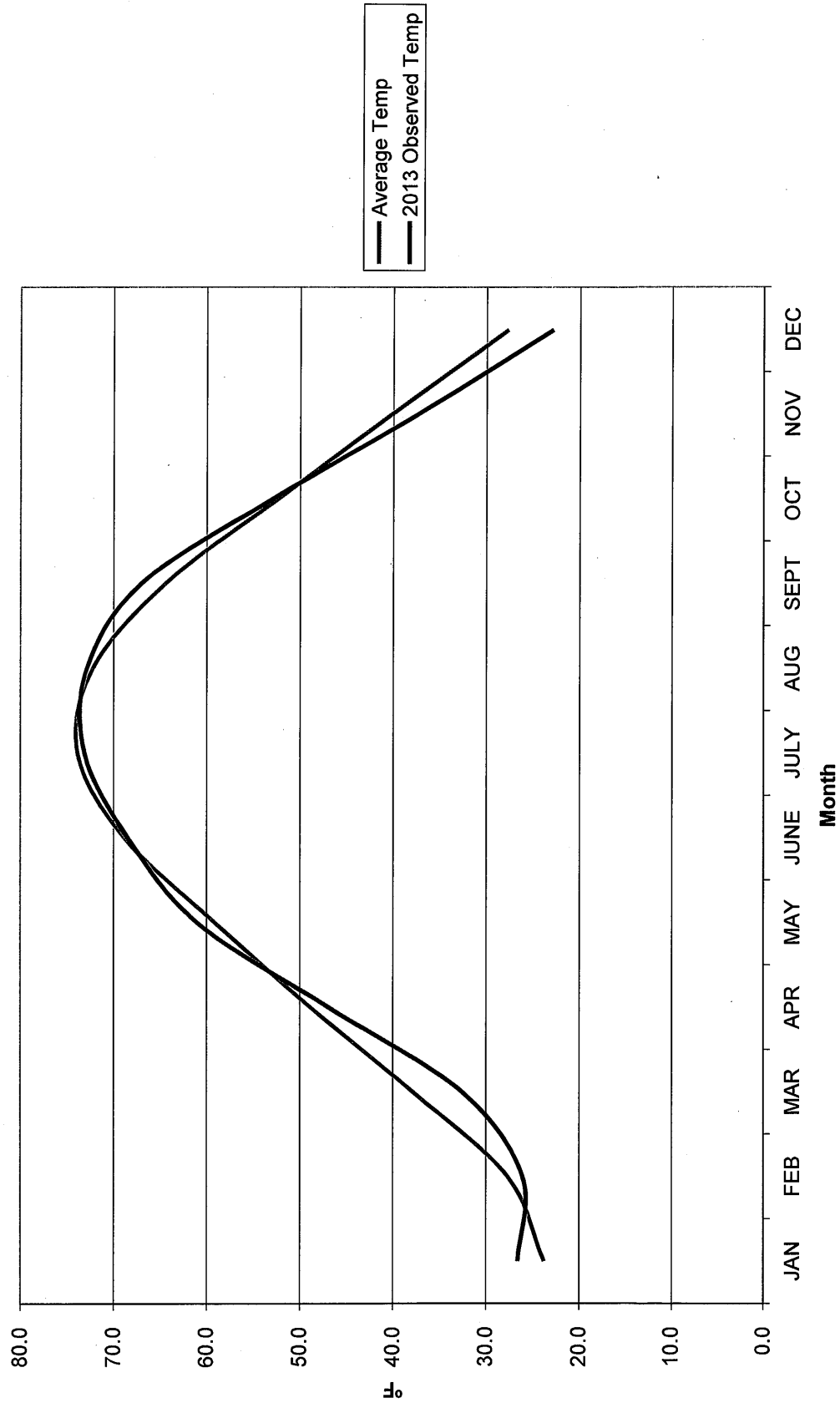
FIGURES WERE OBTAINED FROM THE NATIONAL WEATHER SERVICE

2012 TEMPERATURES IN DEGREES FAHRENHEIT

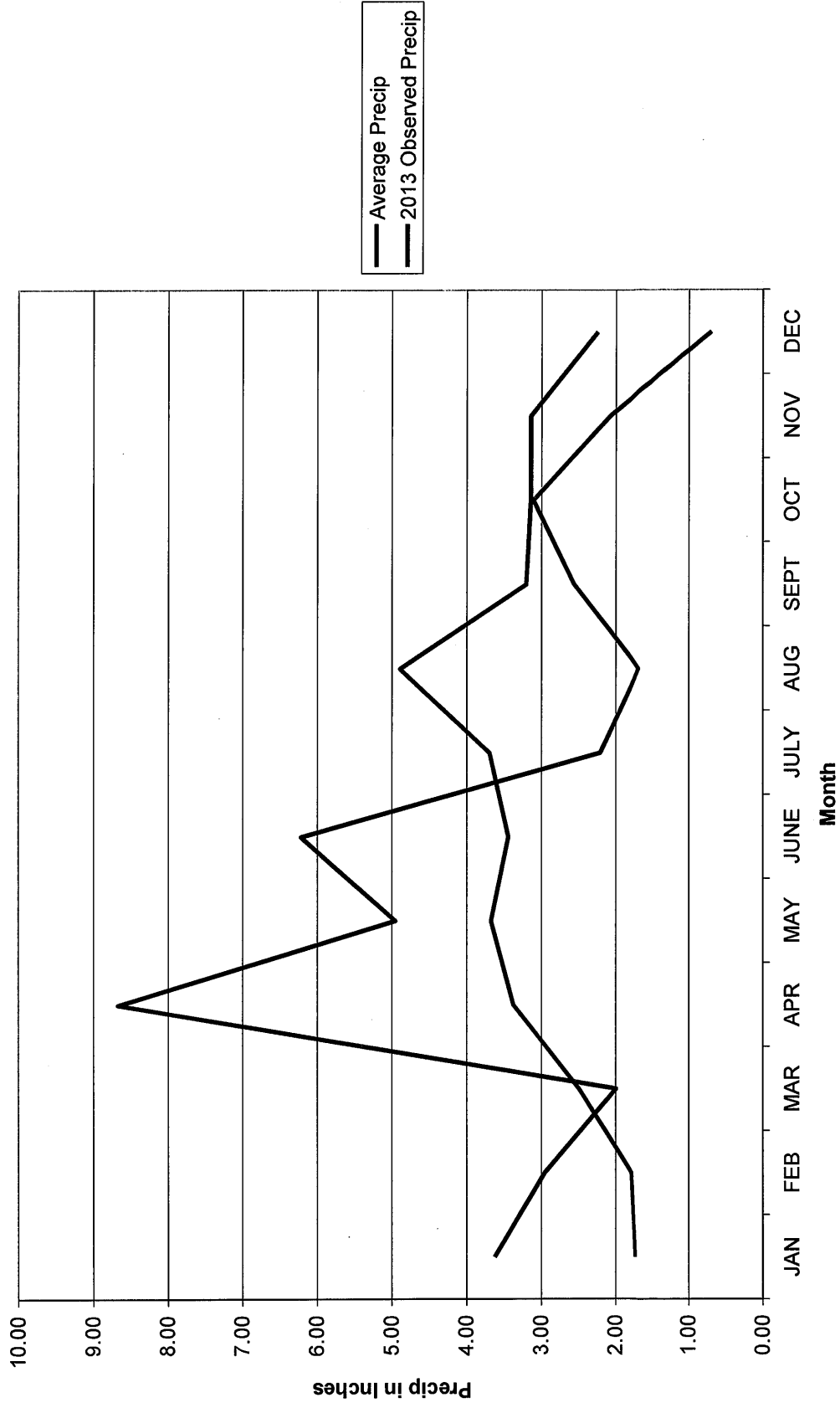
	AVERAGE	OBSERVED	
JAN 2012	23.8	30.2	127%
FEB 2012	27.7	32.9	119%
MAR 2012	37.9	53.5	141%
APR 2012	48.9	50.7	104%
MAY 2012	59.1	65.6	111%
JUNE 2012	68.9	73.9	107%
JULY 2012	74.0	81.1	110%
AUG 2012	72.4	73.3	101%
SEPT 2012	64.6	64.1	99%
OCT 2012	52.5	51.5	98%
NOV 2012	40.3	40.5	100%
DEC 2012	27.7	36.1	130%

ANNUAL TOTAL	112.31%
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2013 Temperatures



2013 Precipitation



15. Contact Information

If any individual ever has any questions or would like additional information please contact:

Ralph Nikischer
Village Horticulturalist
Village of Hinsdale
19 E Chicago Ave
Hinsdale, IL 60521
630-789-7042
rnikischer@villageofhinsdale.org

16. EAB Information (Attached)

16. Labels and Safety Data Sheets (Attached)

You Can Help...

Do Not Move Firewood!

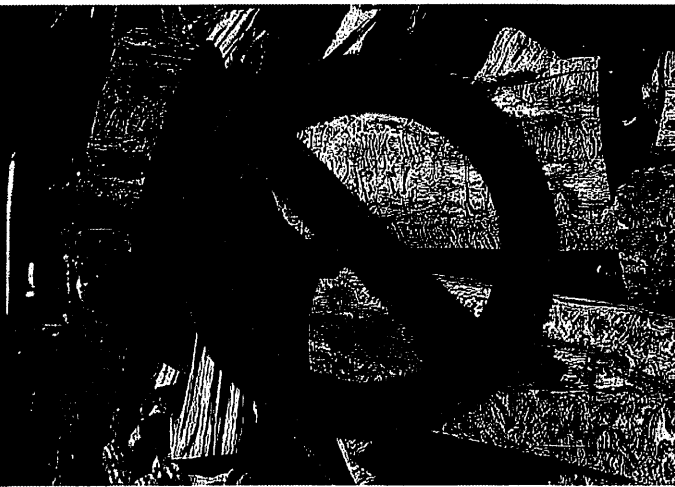


Photo: Canadian Food Inspection Agency

- Emerald ash borer can easily be transported in ash logs.
- Purchase firewood locally from a known source.
- Be sure to use all of the firewood in the cold months so that no hidden emerald ash borer larvae or adults can survive on logs left through the spring.
- Monitor the health of ash trees. Look for dead and dying branches at the top of the tree's crown.

If You Think You Have Emerald Ash Borer:

- For assistance in identifying suspect insects visit www.emeraldashborer.info/ or www.na.fs.fed.us/fhnp/eab/
- Call the national EAB hotline 866-EAB-4512
- Contact Illinois Department of Agriculture's Pesticide Hotline at 800-641-3934 or in the Chicago area use 312-74BEEITL (312-742-3385)
- Contact your city or village forester or arborist for assistance.
- Contact the University of Illinois Extension Service office in your county. Find a nearby office at <http://web.extension.uiuc.edu/cie2/offices/findoffice.cfm> or by calling 217-333-5900
- Contact a certified arborist. You may find one nearby at www.isa-arbor.com/findArborist/findarborist.aspx
- Or contact The Morton Arboretum Plant Clinic at 630-719-2424



For more information about The Morton Arboretum
visit www.mortonarb.org
The Morton Arboretum
4100 Illinois Route 53, Lisle, IL 60532-1293



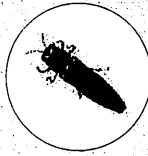
Stop the Borer, Save Ash Trees



Emerald Ash Borer

Emerald Ash Borer

The emerald ash borer, (*Agrilus planipennis* Fairmaire) is a small (1/2 inch long, 1/8 inch wide) metallic green beetle native to Asia. Though it was first found in Michigan in 2002, it was likely that a beetle population had been established in the Detroit area for many years prior. More than 15 million ash trees have been killed. It has been also detected in Ohio, Indiana, Virginia, Maryland, and Ontario, Canada.



Actual size

Biology

The adult emerald ash

borer emerges in

May – July and the

female lays numerous

eggs in bark crevices and

between layers of bark.

The eggs hatch in

7 – 10 days and larvae

bore into the tree where

they chew the inner

bark and phloem

creating serpentine

galleries as they feed.

This cuts off the flow of

water and nutrients in

the tree, causing dieback

and death.



Larva

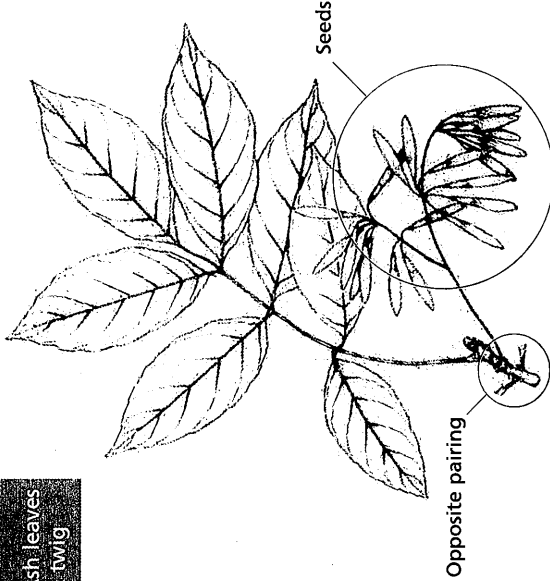


S-shaped galleries

Ash Trees

Ash trees are very common in landscapes and most species, namely white ash (*Fraxinus americana*) and green ash (*F. pennsylvanica*) are native to Illinois forests. It is estimated that as much as 20% of street trees in the Chicago area are ash.

Ash leaves
& twig



Opposite pairing

Seeds

Characteristics of ash:

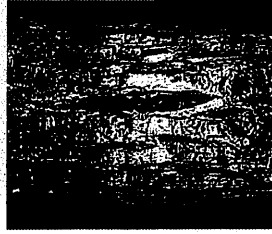
- Compound leaves made up of small, glossy green leaflets.
- Leaves, twigs and branches grow in opposite pairs.
- Bark of mature trees is gray and furrowed, often appearing in a diamond pattern.
- Some ash trees will produce small canoe paddle-shaped seeds.
- Seedless ash trees may develop ash flower galls that turn from green to brown and may persist in the crown throughout the year.



Dieback



Epicormic branching
or suckers



Bark slits



Emergence hole -
Shown actual size of
1/8" and D-shaped

Signs and Symptoms

The most visible sign of infestation is crown dieback, which appears after the first year. Branches at the top of the crown will die and more branches will die in subsequent years. Typically, the tree will be completely dead in about three years, though suckers will sprout from the base of the tree and on the trunk. The bark may also split vertically and woodpeckers may feed on the beetle leaving visible damage on the bark. Treatments with insecticides are being studied. However, all ash trees proximate to any new infestation will be lost.

Adult beetles emerging from trees will leave a very small, 1/8 inch diameter distinctly "D" shaped exit hole that may appear anywhere on the trunk or upper branches.





Other Stressors:

Ash trees may suffer from a large number of pest and disease problems that cause similar symptoms. Native borers also attack ash trees, though they leave larger exit holes up to a 1/4 inch in diameter that are usually circular or oval in shape.



GARDENA, CA
NEW BRUNSWICK, NJ

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table><tr><td>Health Hazard</td><td>1</td></tr><tr><td>Fire Hazard</td><td>1</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	1	Fire Hazard	1	Reactivity	0	<div></div> <div>See Section 15.</div>
Health Hazard	1							
Fire Hazard	1							
Reactivity	0							

Section 1. Chemical Product and Company Identification			Page Number: 1
Common Name/ Trade Name	Corn Gluten Meal	Catalog Number(s).	C3846
		CAS#	6071-96-3
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	RTECS	Not available.
		TSCA	TSCA 8(b) inventory: Corn Gluten Meal
Commercial Name(s)	Not available.	CI#	Not available.
Synonym	Corn Gluten	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000	
Chemical Name	Glutens, Corn		
Chemical Family	Not available.		
Chemical Formula	Not available.		
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248		

Section 2. Composition and Information on Ingredients					
		Exposure Limits			
Name	CAS #	TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	% by Weight
1) Corn Gluten Meal	6071-96-3				100
Toxicological Data on Ingredients Not applicable.					

Section 3. Hazards Identification	
Potential Acute Health Effects	Slightly hazardous in case of eye contact (irritant), of inhalation. Non-irritant for skin. Non-hazardous in case of ingestion.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Continued on Next Page

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact	Wash with soap and water. Get medical attention if irritation develops.
Serious Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of heat.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Keep away from incompatibles such as oxidizing agents.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Safety glasses. Lab coat. Gloves (impervious). Respiratory protection is not necessary for normal handling and with adequate room ventilation. A dust respirator is recommended if ventilation is inadequate and/or if handling of material generates visible dust clouds.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Solid powder.)	Odor	Not available.
Molecular Weight	Not available.	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Yellow with a brown cast
Boiling Point	Not available.		
Melting Point	Not available.		
Critical Temperature	Not available.		
Specific Gravity	Not available.		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Not available.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents.
Corrosivity	Not available.

Continued on Next Page

Corn Gluten Meal

Page Number: 4

Special Remarks on
Reactivity

Not available.

Special Remarks on
Corrosivity

Not available.

Polymerization

Will not occur.

Section 11. Toxicological Information

Routes of Entry

Inhalation. Ingestion.

Toxicity to Animals

LD50: Not available.
LC50: Not available.

Chronic Effects on Humans

Not available.

Other Toxic Effects on
Humans

Slightly hazardous in case of inhalation.
Non-irritant for skin. Non-hazardous in case of ingestion.

Special Remarks on
Toxicity to Animals

Not available.

Special Remarks on
Chronic Effects on Humans

Not available.

Special Remarks on other
Toxic Effects on Humans

Acute Potential Health Effects:
Skin: Not likely to cause skin irritation.
Eyes: Dust may cause eye irritation by mechanical action.
Inhalation: Not expected to be an inhalation hazard for normal handling. Dust may cause respiratory tract irritation by mechanical action.
Ingestion: Non-hazardous. Ingestion of large amounts may cause gastrointestinal upset.

Section 12. Ecological Information

Ecotoxicity

Not available.

BOD5 and COD

Not available.

Products of Biodegradation

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products
of Biodegradation

Not available.

Special Remarks on the
Products of Biodegradation

Not available.

Section 13. Disposal Considerations

Waste Disposal

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification

Not a DOT controlled material (United States).

Identification

Not applicable.

Special Provisions for
Transport

Not applicable.

Continued on Next Page

DOT (Pictograms)

**Section 15. Other Regulatory Information and Pictograms**

Federal and State Regulations

TSCA 8(b) inventory: Corn Gluten Meal

FDA: Direct Food Additives GRAS (21CFR184): Listed as Corn Gluten.

FDA: Everything Added to Food in the United States: Listed as Corn Gluten.

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 266-116-0).

Canada: Listed on Canadian Domestic Substance List (DSL).

China: Not listed on National Inventory.

Japan: Not listed on National Inventory (ENCS).

Korea: Not listed on National Inventory (KECI).

Philippines: Listed on National Inventory (PICCS).

Australia: Listed on AICS.

Other Classifications

WHMIS (Canada) Not controlled under WHMIS (Canada).

DSCL (EEC) This product is not classified according to the EU regulations. Not applicable.

HMIS (U.S.A.)

Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	B

National Fire Protection Association (U.S.A.)

Health



Flammability

Reactivity

Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves (impervious).

Continued on Next Page



Lab coat.

Not applicable.
Safety glasses.**Section 16. Other Information**

MSDS Code C0529

References Not available.

Other Special
Considerations Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

Printed 9/11/2006.

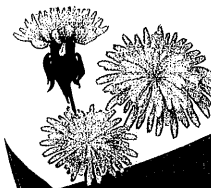
CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.

St. Gabriel ORGANICS

SINCE 1973



OMRI
Listed
Organic Materials Review Institute
For use in organic
production

PET
APPROVED
BRAND

BurnOut II

Fast Acting Weed & Grass Killer CONCENTRATE

DANGER: KEEP OUT OF REACH OF CHILDREN

FIRST AID

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

IF SWALLOWED: Call a doctor or get medical attention. Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND ANIMALS

DANGER: Causes eye irritation. Wear safety glasses and gloves when applying. Do not get in eyes, on skin, or on clothing. Harmful if swallowed.

In case of contact, immediately flush eyes with plenty of water. Get medical attention if irritation persists. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS: Avoid spraying directly into water.

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

PERSONAL PROTECTION EQUIPMENT (PPE):

Applicators and other handlers must wear appropriate protective eyewear, such as goggles or face shield, long sleeved shirt and long pants, waterproof gloves and shoes.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

STORAGE: Keep from freezing. Store only in original tightly sealed container and out of reach of children.

PESTICIDE DISPOSAL: Securely wrap original container in several layers of newspaper and discard in trash.

CONTAINER DISPOSAL: Do not reuse container (bottle). Rinse thoroughly before discarding in trash.

DIRECTIONS FOR USE:

DIRECTIONS FOR USE: Mix 1 part BurnOut II Weed and Grass Killer concentrate to 3 parts water. (mixing ratio is 3:1). For older more established weeds a (2:1) mixing ratio may be required to kill target plants.

BROAD CAST APPLICATIONS: Spray BurnOut to run-off using tank sprayer, typically 35-75 gallons of spray solution per acre.

BAND APPLICATION: Using trigger sprayers, cover desired weeds and grasses as needed, typically 25-50 gallons per acre.

SHAKE WELL BEFORE USING

BurnOut Weed & Grass Killer is non-selective to both broadleaf and grassy weeds and is recommended for areas such as borders, driveways, sidewalks, around mature tree bases, around buildings, in fence rows, in greenhouses, school grounds, and around flower beds.

BurnOut Weed & Grass Killer is fast acting. Foliar contact results in rapid desiccation of plant cell tissue, and top growth reduction of herbaceous perennial weeds and grasses. Re-treatment is required for control of established perennial weeds.

FOR EARLY SEASON ANNUAL WEED CONTROL:

When weeds are small (3 to 5 leaf) and actively growing, apply BurnOut Weed & Grass Killer to the foliage of the weeds, making sure that all of the foliage is wet. Thorough coverage is necessary to achieve desirable control.

BurnOut Weed & Grass Killer is fast acting. It can be applied up to one hour before rainfall and still be effective. If it rains less than one hour after treatment, determine if the treated leaves are showing symptoms. If symptoms are not obvious, wait until the leaves dry and re-treat.

FOR CONTROL OF LARGER ANNUALS AND BURNDOWN OF PERENNIAL WEED GROWTH:

Larger annual weeds and perennials are more difficult to control and may require retreatment.

Treat initially as recommended above and repeat if new growth of leaves appear. Thorough coverage of all foliage is necessary to achieve desirable control. Best results are achieved from spring / early summer applications to actively growing young weeds. Weeds that are mature, dormant, or hardened due to moisture stress are more tolerant of herbicide treatments. Only contacted vegetation will be affected. Rainfall within one hour or application will reduce degree of control.

Avoid application to reactive metals such as aluminum, tin, iron, or items such as fencing or lawn furniture in order to prevent staining, mottling, or otherwise interfering with finished metal surfaces.

NOTE: All contacted vegetation will be affected. Avoid contact with desirable plants. Overspray or drift will injure or kill contacted vegetation.

TYPICAL WEEDS CONTROLLED

ANNUAL

Broadleaf Weeds

Black Medic
Chickweed
Cinquefoil (rough)
Lamb's-quarters
Mustard spp.
Oxalis spp.
Pigweed spp.
Ragweed spp.

Annual Grasses

Crabgrass
Foxtail spp.

PERENNIAL

Broadleaf Weeds

Cinquefoil (silvery)
Dandelion
Plantain spp.
Toadflax
Tufted vetch
Wild carrot

Perennial Grasses

Bluegrass
Quack grass

CONDITIONS OF SALE

The label instructions for the use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffective or other unintended consequences may result because of such factors as weather conditions, presence of other materials, herbicide resistant weed preparations or the use or application of the product contrary to label instructions, all of which are beyond the control of St. Gabriel Organics. ALL SUCH RISKS WILL BE ASSUMED BY THE USER. St. Gabriel Organics shall not be responsible for losses or damages resulting from the use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label. St. Gabriel Organics warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above. St. Gabriel Organics DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ST. GABRIEL ORGANICS EXCLUSIVE REMEDY AND ST. GABRIEL ORGANICS EXCLUSIVE LIABILITY SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THIS PRODUCT.

This Product has not been registered by the United States Environmental Protection Agency. St. Gabriel Organics Represents That this product qualifies for exemption from registration with the Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act.

St. Gabriel Organics

14044 Litchfield Dr., Orange, VA 22960
1-800-801-0061 • www.STGabrielOrganics.com



Material Safety Data Sheet

May be used to comply with

OSHA's Hazard Communication Standard,
29 CFR 1910.1200. This Standard must be
consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health

Administration

(Non-Mandatory Form)

Form Approved

OMB No. 1218-0072

IDENTITY (<i>As Used on Label and List</i>) ST. Gabriel Organics BurnOut II Concentrate Active ingredient: Clove Oil 18%, Citric Acid 30% Inert ingredients: Mineral oil, (USP), Water, Gum Arabic Total other 52% Total 100%	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate this.
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Section I

Manufacturer's Name: St. Gabriel Organics	Emergency Telephone Number (800) 801-0061 Toll Free
Address: 14044 Litchfield Drive	Telephone Number for Information (540) 672-0866
Orange, Virginia 22960	Date Revised: November 6, 2008 Revised by: Cathy A. Stiles

Section II - Physical/Chemical Characteristics

Boiling Point	Data not found	Specific Gravity (H₂O = 1)	1.05
Vapor Pressure (mm Hg.)	Data not found	Melting Point	N/A
Vapor Density (AIR = 1)	Data not found	Evaporation Rate (Butyl Acetate = 1)	<1.0
Solubility in Water Not soluble – forms an emulsion			
Appearance and Odor Appearance: Milky White Odor: Clove smell			

Section III - Fire and Explosion Hazard Data

Flash Point (Method Used) Not known	Flammable Limits Not tested	LEL N/A	UEL N/A
Extinguishing Media Foam, Carbon Dioxide, or Dry Chemical extinguishers			
Special Fire Fighting Procedures Self contained breathing apparatus.			
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Unusual Fire and Explosion Hazards NONE			
Hazardous Decomposition Products: Acid Vapors, Carbon Dioxide, Carbon Monoxide			

Section IV - Reactivity Data

Stability: Reacts with organic and inorganic bases.			Conditions to Avoid: Contact with skin, eyes, or prolong inhalation. Do not ingest product.
Incompatibility: Bases and caustic compounds (alkaline compounds)			
Hazardous Decomposition or Byproducts None Known			
Hazardous Polymerization Will not occur.			

Section V - Health Hazard Data

Route(s) of Entry:	Inhalation? Yes	Skin? YES	Ingestion? YES
Health Hazards: Contact with this product will result in eye irritation. Contact with this product will cause severe skin irritation. Breathing vapors will cause significant respiratory irritation. Ingestion of this product could cause burns and destroy tissue in the mouth, throat, and digestive tract.			
Carcinogenicity:	NTP? N/A	IARC Monographs? N/A	OSHA Regulated? N/A

<p>Emergency and First Aid Procedures: Inhalation: Remove person to fresh air. Seek immediate medical assistance.</p> <p>Ingestion: Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinsing mouth with water and give milk or water to drink. If possible, do not leave individual unattended.</p> <p>Skin: Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse and discard contaminated shoes.</p> <p>Eyes: Immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Call a physician immediately.</p>

Section VI - Precautions for Safe Handling and Use

<p>Steps to Be Taken in Case Material is Released or Spilled: Cover the contaminated surface with sodium bicarbonate or a soda ash/flaked lime mixture (50-50). Mix and add water if necessary to form a slurry. Scoop up slurry and wash site with soda ash solution. Proper mixing procedures are essential. Trained personnel should conduct this procedure. Untrained personnel should be removed from the spilled area.</p>
<p>Waste Disposal Method: If Empty - Do not reuse container. Place in trash or offer for recycling if available. If Partly Filled – Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.</p>
<p>Precautions to be taken in Handling and Storing Avoid contact with eyes, skin or clothing. Keep bottle/container tightly closed and store in a cool, dry place.</p>
<p>Other Precautions NA</p>

Section VII - Control Measures

Ventilation: Product for outdoor use only.	Local Exhaust N/A	Special N/A

Protective Gloves: Wear Neoprene, Nitrile, or oil/solvent resistant gloves.	Eye Protection Wear chemical goggles when handling the product and during application.
Other Protective Clothing or Equipment: Wear long sleeved shirt, long pants, socks and shoes.	

Section VIII - Special Precautions

Precautions to be taken in Handling and Storing: Keep container tightly closed when not in use. Store only in the original container in a cool, dry place.

The above information is believed to be correct, but does not purport to be all inclusive. This data should be used only as a guide in handling this material. BurnOut II concentrate/St. Gabriel Organics shall not be held liable for any damage resulting from handling or from direct contact with this product.

Tri-Power[®]

Selective Herbicide

For selective broadleaf weed control in ornamental lawns and turf grasses. Also for woody plants, roadsides, and non-crop areas (as listed on this label).

CONTROLS: Dandelion, Chickweed, Black medick, Knotweed, Plantain, Oxalis, Clover, Cocklebur, Thistle and many other species of broadleaf weeds; some of which are listed on this label.

CONTAINS MCPA, MECOPROP-p AND DICAMBA

ACTIVE INGREDIENTS:

Dimethylamine Salt of 2-Methyl-4-Chlorophenoxyacetic Acid*	40.42%
Dimethylamine Salt of (+)-R-2-(2-Methyl-4-Chlorophenoxy) propionic Acid**	7.99%
Dimethylamine Salt of Dicamba (3,6-Dichloro-o-Anisic Acid)***	3.97%

OTHER INGREDIENTS:

TOTAL: 100.00%

Isomer Specific Method, Equivalent to:

*2-Methyl-4-Chlorophenoxyacetic Acid	33.00%, 3.1 lbs/gal.
**(+)-R-2-(2-Methyl-4-Chlorophenoxy) propionic Acid	6.60%, 0.6 lbs/gal.
***3,6-Dichloro-o-Anisic Acid	3.30%, 0.3 lbs/gal.

CONTAINS THE SINGLE ISOMER FORM OF MECOPROP-p.

KEEP OUT OF REACH OF CHILDREN
⚠ DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL
PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or
Exposure, Call CHEMTREC
(800) 424-9300

For Medical Emergencies Only,
Call (877) 325-1840

EPA Reg. No. 228-262

Manufactured for
Nufarm Americas Inc.
150 Harvester Drive
Burr Ridge, IL 60527


Nufarm

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER / PELIGRO**

Corrosive causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks, and
- Chemical-resistant gloves made of any waterproof material,
- Protective eyewear (goggles, face shield or shielded safety glasses)

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

FIRST AID

IF IN EYES	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
IF SWALLOWED	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

ENVIRONMENTAL HAZARDS

This pesticide may adversely affect non-target plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.

This product is for use on Ornamental Turf Lawns (Residential, Industrial and Institutional), Parks, Cemeteries, Athletic Fields and Golf Courses (Fairways, Aprons, Tees and Roughs); also for Woody Plants and Roadsides. Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production or for research purposes.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not apply more than 3.87 pints of this product (1.5 lbs MCPA ae) per acre per year. Do not apply more than 2 applications per year. The minimum retreatment interval of 30 days.

Aerial applications are prohibited.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather- related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all factors when making decisions.

Apply only as medium or coarser sprays (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Apply only when the wind speed is 2 to 10 mph at the application site.

For ground applications: Do not apply with a nozzle height greater than 4 feet above the crop canopy.

Temperature Inversions

If applying at wind speed less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

USE PRECAUTIONS

Avoid drift of spray mist to vegetables, flowers, ornamental plants, shrubs, trees and other desirable plants. Do not pour spray solutions near desirable plants. Do not use on Dichondra, nor on lawns or turf where desirable clovers are present. Avoid fine mists. Use lawn type sprayer with coarse spray as wind drift is less likely. Avoid contact with exposed feeder roots of ornamentals and trees. Maximum control of weeds will be obtained from Spring or early Fall applications when weeds are actively growing. Use the higher rate for hard to control weeds. Do not exceed specified dosages for any area, be particularly careful within the dripline of tree and other ornamental species. Do not apply to newly seeded grasses until well established. Avoid broadcast applications when air temperature exceeds 90 degrees. When using small, spot treatment applications in temperature over 90 degrees, turf injury may occur.

When treating Carpetgrass and St. Augustine grass, avoid broadcast applications when air temperature exceeds 80 degrees. When air temperatures exceed 80 degrees, limit application to spot treatment only.

For optimum results: (1) avoid applying during excessively dry or hot periods unless irrigation is used; (2) avoid applying if rainfall is expected within 24 hours, nor should lawns be irrigated (watered) for 24 hours following application; (3) turf should not be mowed 1 to 2 days before and following application; (4) reseed no sooner than 3 to 4 weeks after application of this product. Adding oil, wetting agent, or other surfactant to the spray may be used to increase effectiveness on weeds, but doing so may reduce selectivity to turf resulting in turf damage. Clean and rinse spray equipment using soap or detergent and water, and rinse thoroughly before reuse for other sprays.

This product can be mixed with some liquid fertilizers or liquid iron materials. Because liquid fertilizers and liquid iron differ in pH, free ammonia content, density, salt concentration, and percentage of water, a compatibility test (given below) is recommended prior to mixing in the application equipment. All regulations, either State or Federal, relating to the application of liquid fertilizers or liquid iron and this product must be strictly followed. The following compatibility test should always be performed prior to full-scale mixing.

1. Pour 18 ounces of water into a quart jar.
2. Add 1 ounce of either the liquid fertilizer or liquid iron to be used.
3. Add 1 ounce of this product.
4. Close jar and shake well.
5. Watch the mixture for several seconds after shaking and check again after 30 minutes.
6. If the mixture does not show signs of separating, the combination may be used. If the mixture foams excessively, gels, separates or gets very thick, do not combine for field application.
7. Compatibility may be improved by the use of a compatibility agent. Some suggested compatibility agents to try are Kalo Laboratories' Complex, Farm Chemicals Inc.'s Compat, Harcross Chemicals' T-Mulz 734-2, Rigo Company's Rigo Compatibility Agent, Witco Chemical's Sponto 1 68D, Amoco Oil's Amoco Spray Mate and Universal Coop's Chem-Link. These agents are all used in the same manner. Follow the previously outlined test procedures and add 1/6 ounce of the compatibility agent between steps (the compatibility agent must be added to the fertilizer or iron before adding this product).
8. If the mixture does not separate, gel, foam or get very thick, it may be used for field application. Mix only the amount to be sprayed. Do not allow to stand overnight.

WEEDS CONTROLLED

Bedstraw	Dog fennel	Lespedeza	Red clover	Wild carrot
Bindweed	English daisy	Mallow	Red sorrel	Wild garlic
Black medic	Florida pusley	Morningglory	Sheep sorrel	Wild geranium
Buckhorn	Frenchweed	Mustard	Shepherdspurse	Wild lettuce
Burdock	Goldenrod	Oxalis	Smartweed	Wild onion
Buttercup	Ground ivy	Pennywort	Speedwell	Wild radish
Canada thistle	Hawkweed	Peppergrass	Spurge	Wood sorrel
Carpetweed	Healall	Pepperweed	Spurweed	Yarrow
Chickweed	Heartleaf drymary	Pigweed	Stinging nettle	and many other
Chicory	Henbit	Plantain	Stitchwort	broadleaf weeds.
Clover	Jimsonweed	Poison ivy	Thistle	
Cocklebur	Knotweed	Poison oak	Toadflax	
Dandelion	Kochia	Purslane	Veronica	
Dock	Lambsquarter	Ragweed	Wild aster	

ORNAMENTAL LAWNS AND TURFS

Cool Season Grasses: Apply this product at the rate of 2.5 to 3.87 pints in 20 to 240 gallons of spray solution per acre (0.9 to 1.5 fluid ounces in 0.5 to 4 gallons of water per 1,000 square feet) to control (or kill) weeds growing in ornamental lawn turf planted to Kentucky bluegrass, Perennial ryegrass, Tall fescue or Fine fescue.

Warm Season Grasses: Apply this product at the rate of 2 to 3 pints in 20 to 240 gallons of spray solution per acre (0.7 to 1.1 fluid ounces in 0.5 to 4 gallons of water per 1,000 square feet) to control weeds growing in Bermudagrass or Zoysiagrass. Applications to other grass species including Bahiagrass, Kikuyugrass, Buffalograss, Centipedegrass, Carpetgrass, or St. Augustinegrass should be avoided unless injury can be tolerated. Avoid applications to warm season grasses emerging from Winter dormancy unless a slight delay in Spring green-up can be tolerated.

Bentgrass Turf (Other Than Golf Course Greens and Tees): On closely mowed Bentgrass, apply this product at a maximum rate of 2-1/2 pints per acre (0.9 fluid ounces in 3 gallons of water per 1,000 square feet) in May or mid-August through September when weeds are actively growing. Exercise care when applying to avoid overdosing Bentgrass, or turf injury may result. Slight turf yellowing should disappear after about 1 week.

Bentgrass Turf (Putting and Bowling Greens): On closely mowed Bentgrass, apply this product at a maximum rate of 1 fluid ounce in 5 gallons of water per 1,500 square feet, preferably in May or mid-August through September. Slight turf yellowing will disappear after about one week.

NOTE: Care should be taken to avoid overdosing Bentgrass, St. Augustine, and Centipede grasses or injury may result. Large volumes of spray water will aid in obtaining uniform coverage. If hand-type sprayers are used, it is preferable to use a single nozzle sprayer rather than a multiple nozzle boom as sideways application with a boom where the spray from more than one nozzle is allowed to fall on the same area will result in heavy local over-application and subsequent turf discoloration or injury.

Herbi™ Controlled Droplet Applicator: For Cool Season Grasses - Add 1-2/3 to 2-1/2 pints of this product to the 5 pint Herbi bottle, then fill with water to make 5 pints of mixture or substitute 1/2 pint of a surfactant for water while agitating the solution, per 1 acre treatment.

For Listed Warm Season Grasses - Apply 1-1/4 to 1 -2/3 pints of this product, then add water to make total of 5 pints of mixture. While walking at approximately 1 pace (3 feet) per second, spray entire contents over 33,000 square feet (3/4 of an acre). Do not overlap (double coverage) at edge of spray patterns. Reduced rates (use 1/2 of rate shown above) of this product must be applied when grass is stressed from heat, drought, etc.

Controlled Droplet Applicators - (CDA), Atomizers, and Spinning Disk Applicators: For Cool Season Grasses - Use this product at the rate of 2-1/2 to 3-1/2 pints per acre (0.9 to 1.25 fluid ounces per 1,000 square feet) in sufficient water to assure coverage (1 to 4 gallons of water per acre is normal for this type of equipment).

For Listed Warm Season Grasses - Use 2 to 3 pints of this product per acre (0.7 to 1.1 fluid ounces per 1,000 square feet) in sufficient water to assure coverage (1 to 4 gallons of water per acre is normal for this type of equipment).

NOTE: For all grasses (1) Do not overlap spray patterns; (2) Use reduced rates if grass is stressed from heat, drought, etc.; and (3) Follow CDA equipment spray instructions.

RESTRICTIONS AND LIMITATIONS FOR USE ON TURF

Do not apply more than 3.87 pints of this product (1.5 lbs MCPA ae) per acre per year.

Do not apply more than 2 applications per year.

The minimum retreatment interval of 30 days.

OTHER NON-CROP AREAS

(fencerows, hedgerows, roadsides (including aprons and guard rails), ditches, rights-of-way, utility, pipelines, powerlines, railroads, airports, commercial plants, storage and lumber yards, barrier strips and firebreaks, equipment areas, nurseries and ornamental plantings, fuel tank farms, pumping stations and other industrial sites)

Other Non-Crop Areas: For the control of broadleaf weeds, mix at a rate of 1/4 gallon to 3 pints of this product per 50 to 300 gallons of water. This mixture will cover 43,500 square feet. Thoroughly saturate all weeds with spray mixture. Apply any time between the time when plants come into full leaf (Spring) to when the plants begin to go dormant. Best results are obtained when weeds are young and actively growing. Do not cut weeds until herbicide has translocated throughout the plant causing root death. For small broadleaf weeds, use the lower rate.

For Control of Woody Plants: Apply to both stems and foliage any time from the time foliage is completely matured until the time plants start to go dormant. All leaves, stems and suckers must be completely wet to the ground line for effective control. Regrowth may be anticipated on the more resistant species. Add 3 pints of this product to 100 gallons of water applying 200 to 600 gallons of spray mixture per 43,500 square feet depending upon the height and thickness of the brush. Mix thoroughly before spraying.

RESTRICTIONS AND LIMITATIONS FOR USE ON TURF

Do not apply more than 3.87 pints of this product (1.5 lbs MCPA ae) per acre per year.

Do not apply more than 2 applications per year.

The minimum retreatment interval of 30 days.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Always store pesticides in a secured warehouse or storage building. Store at temperatures above 32°F. If allowed to freeze, remix before using. This does not alter this product. Containers should be opened in well ventilated areas. Keep container tightly sealed when not in use. Do not stack cardboard cases more than two pallets high. Do not store near open containers of fertilizer, seed, or other pesticide.

PRODUCT DISPOSAL: Pesticide wastes are acutely hazardous. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed labeled container for proper disposal. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable Containers 5 Gallons or Less: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

Nonrefillable containers larger than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. **Triple rinse** or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

OR

Refillable containers larger than 5 gallons: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

OR

Refillable Container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Close all openings and replace all caps. Contact Nufarm's Customer Service Department at 1-800-345-3330 to arrange for return of the empty refillable container.

WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR ARISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

(RV013111)

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All other trademarks are the property of their respective owners.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Tri-Power® Selective Herbicide**
EPA Reg. No.: 228-262
Synonyms: Herbicide Mixture of MCPA, Mecoprop-p (MCP-P) and Dicamba
Product Type: Herbicide

Company Name: Nufarm Americas Inc.
11901 S. Austin Avenue
Alsip, IL 60803

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night: 1-800-424-9300
For Medical Emergencies Only, Call 1-877-325-1840

Date of Issue: October 18, 2013 **Supersedes:** March 12, 2012
Sections Revised: 1

2. HAZARDS IDENTIFICATION**Emergency Overview:**

Appearance and Odor: Dark amber colored liquid with slight ammonia odor.

Warning Statements: Keep out of reach of children. DANGER. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Potential Health Effects:

Likely Routes of Exposure: Inhalation, eye and skin contact.

Eye Contact: Corrosive. Causes corneal involvement or irritation.

Skin Contact: Slightly toxic and minimally irritating based on toxicity studies. Overexposure by skin absorption may cause symptoms similar to those for ingestion.

Ingestion: Harmful if swallowed. May cause nausea, vomiting, abdominal pain, decreased blood pressure, muscle weakness, muscle spasms.

Inhalation: Harmful if inhaled. May cause symptoms similar to those from ingestion.

Medical Conditions Aggravated by Exposure: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

See Section 11: TOXICOLOGICAL INFORMATION for more information.

Potential Environmental Effects:

This pesticide may adversely affect non-target plants. This chemical has properties and characteristics associated with chemicals detected in groundwater.

See Section 12: ECOLOGICAL INFORMATION for more information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Dimethylamine Salt of 2-Methyl-4-Chlorophenoxyacetic Acid	2039-46-5	40.42
Dimethylamine Salt of (+)-R-2-(2-Methyl-4-Chlorophenoxy) propionic Acid	66423-09-4	7.99
Dimethylamine Salt of Dicamba (3,6-Dichloro-o-Anisic Acid)	2300-66-5	3.97
Other Ingredients		47.62

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Flash Point: Not applicable due to aqueous formulation

Autoignition Temperature: Not determined **Flammability Limits:** Not determined

Extinguishing Media: Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride and oxides of carbon and nitrogen.

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 2 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: Pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Handling:

Do not get in eyes or on clothing. Avoid contact with skin, eyes or clothing. Wear long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves made of any waterproof material and protective eyewear (goggles, face shield, or shielded safety glasses). Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Storage:

Always store pesticides in a secured warehouse or storage building. Store at temperatures above 32°F. If allowed to freeze, remix before using. This does not alter the product. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not stack cardboard cases more than two pallets high. Do not store near open containers of fertilizer, seed, or other pesticides. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear face shield or goggles when mixing and loading this product. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves made of any waterproof material. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Wear a NIOSH approved half-mask respirator equipped with N-,R-,P-Series, or HE particulate air filters with the approval number prefix (84S-XXX). It is recommended that respirator wearers be fit-tested and trained in the proper use, care, cleaning, inspection, and storage of the respirator. Refer to the Occupational Safety and Health Administration (OSHA) standard for Respiratory Protection (29 CFR 1910.134) for additional information.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
DMA Salt of MCPA	NE	NE	NE	NE	
DMA Salt of Mecoprop-p	NE	NE	NE	NE	
DMA Salt of Dicamba	NE	NE	NE	NE	

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Dark amber colored liquid with slight ammonia odor.

Boiling Point: Not determined

Solubility in Water: Soluble

Density: 9.4 pounds/gallon

Specific Gravity: 1.13 @ 20°C

Evaporation Rate: Not determined

Vapor Density: Not determined

Freezing Point: 32°F (0°C)

Vapor Pressure: Not determined

pH: 7.5 – 8.5

Viscosity: 30.16 cps @25°C

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal handling and storage conditions.

Conditions to Avoid: Excessive heat. Do not store near heat or flame.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions, may produce gases such as hydrogen chloride and oxides of carbon and nitrogen.

Hazardous Reactions: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION**Toxicological Data:**

Data from laboratory studies on this product are summarized below:

Oral: Rat LD₅₀: 1,400 mg/kg

Dermal: Rabbit LD₅₀: >2,000 mg/kg

Inhalation: Rat 4-hr LC₅₀: > 0.23 mg/l

Eye Irritation: Rabbit: Severely irritating/corrosive

Skin Irritation: Rabbit: Slightly irritating

Skin Sensitization: Guinea pigs: Contact sensitizer

Subchronic (Target Organ) Effects: Repeated overexposure to phenoxy herbicides may cause effects to liver, kidneys, blood chemistry, and gross motor function. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods. Repeated overexposure to dicamba may cause liver changes or a decrease in body weight.

Carcinogenicity / Chronic Health Effects: The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. However, newer MCPA rat and mouse lifetime feeding studies, as well as a more current MCPP lifetime feeding study in rats, did not show carcinogenic potential. Dicamba did not cause cancer in long-term animal studies. The U.S. EPA has given dicamba a Class D classification (not classifiable as to human carcinogenicity).

Reproductive Toxicity: MCPA studies in laboratory animals have shown testicular effects and lower male fertility. No impairment of reproductive function attributable to MCPP has been noted in laboratory animal studies. Dicamba did not interfere with fertility in reproduction studies in laboratory animals.

Developmental Toxicity: MCPA and MCPP studies in laboratory animals have shown decreased fetal body weights and delayed development in the offspring at doses toxic to mother animals. Animal tests with dicamba have not demonstrated developmental effects.

Genotoxicity: There have been some positive and some negative studies, but the weight of evidence is that neither MCPA nor MCPP is mutagenic. Animal tests with dicamba did not demonstrate mutagenic effects.

MATERIAL SAFETY DATA SHEET**Tri-Power® Selective Herbicide****Assessment Carcinogenicity:**

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Chlorophenoxy Herbicides	No	2B	No	No

See Section 2: HAZARDS IDENTIFICATION for more information.

12. ECOLOGICAL INFORMATION**Ecotoxicity:****Data on MCPA DMA:**

96-hour LC ₅₀ Bluegill:	>310 mg/l	Bobwhite Quail Oral LD ₅₀ :	390 mg/kg
96-hour LC ₅₀ Rainbow Trout:	230 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>5,620 mg/l
48-hour EC ₅₀ Daphnia:	190 mg/l		

Data on Mecoprop-p DMA:

96-hour LC ₅₀ Bluegill:	>93 mg/l	Bobwhite Quail Oral LD ₅₀ :	>498 mg/kg
96-hour LC ₅₀ Rainbow Trout:	>150 mg/l	Bobwhite Quail 8-day Dietary LC ₅₀ :	>4,633 mg/kg
48-hour LC ₅₀ Daphnia:	>91 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>4,137 mg/kg

Data on Dicamba:

96-hour LC ₅₀ Bluegill:	135 mg/l	Bobwhite Quail 8-day Dietary LC ₅₀ :	>10,000 mg/l
96-hour LC ₅₀ Rainbow Trout:	135 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>10,000 mg/l
48-hour EC ₅₀ Daphnia:	110 mg/l	48-hour Honey Bee Contact LD ₅₀ :	>100 µg/bee

Environmental Fate:

MCPA DMA rapidly dissociates to parent MCPA in the environment. In soil, MCPA is microbially degraded with a typical half-life of approximately 10 to 14 days. Mecoprop-p DMA rapidly dissociates to parent mecoprop-p acid in the environment. In soil, mecoprop-p is relatively immobile in most soils and has a half-life of several days in surface soils. Dicamba has low bioaccumulation potential, is not persistent in soil, is highly mobile in soil and degrades rapidly.

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method:**

Pesticide wastes are acutely hazardous. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed, labeled container for proper disposal. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling and Disposal:

Nonrefillable Containers 5 Gallons or Less: Nonrefillable container. Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

Nonrefillable containers larger than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly

after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

OR

Refillable containers larger than 5 gallons: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this MSDS.

DOT

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

15. REGULATORY INFORMATION**U.S. Federal Regulations:**

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Immediate, Delayed

Section 313 Toxic Chemical(s):

Dicamba (CAS No. 1918-00-9), 3.30% equivalent by weight in product

Reportable Quantity (RQ) under U.S. CERCLA:

Dicamba (CAS No. 1918-00-9) 1,000 pounds

RCRA Waste Code:

None

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

16. OTHER INFORMATION

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

Tri-Power is a registered trademark of Nufarm Americas Inc.

XytectTM 75WSP

Insecticide

For foliar and systemic insect control in turfgrass (including sod farms), landscape ornamentals, fruit and nut trees and interior plantscapes.

EACH PACKET CONTAINING **1.6 oz**

ACTIVE INGREDIENT:

Imidacloprid, 1- [(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine..... 75.0%

OTHER INGREDIENTS: 25.0%

TOTAL: 100.0%

KEEP OUT OF REACH
OF CHILDREN.

CAUTION

See additional precautionary
statements and directions for use inside
booklet.

STOP - Read the label before use.

Keep water soluble packets in this container and store in a cool dry place but not below freezing (32 F)

EPA Reg. No. 42750-117-74779 EPA Est. No. 65387-AR-001

Do not remove packets from container except for immediate use.

PRECAUCION AL USUARIO: Si usted no puede leer o entender ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

FIRST AID

IF SWALLOWED

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

IF IN EYES

- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

In case of emergency call CHEMTREC toll free at 1-800-424-9300. Have a product container or label with you when calling a poison control center or, doctor, or going for treatment.

Note to Physician: No specific antidote is available. Treat the patient symptomatically.

USER SAFETY RECOMMENDATIONS

User should:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Keep children or pets off treated area until spray is dry.

Applicators and Other Handlers Must Wear:

1. Long-sleeved shirt and long pants
2. Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton.
3. Shoes plus socks

Follow manufacturer's instructions for cleaning/ maintaining personal protective equipment, PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not formulate this product into other end-use products

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, care-fully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away. You may contact Chemtrec at 800-424-9300 for decontamination procedures or any other assistance that may be necessary.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170.

This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Exception: If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

1. Coveralls
2. Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton.
3. Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children and pets off treated area until dry.

APPLICATION TO TURFGRASS	
Xytect™ 75WSP Insecticide will control the following soil inhabiting pests found in turfgrass	
PEST	SCIENTIFIC NAME
Northern & Southern masked chafers Asiatic garden beetle European chafer Green June beetle May or June beetle Japanese beetle Oriental beetle Billbugs Annual bluegrass weevil Black turfgrass ateniuis European Crane Fly Mole crickets	Cyclocephala borealis, C. immaculata, and/or C. lurida Maladera castanea Rhizotroqus majalis Cotinis nitida Phyllophaga spp. Popillia japonica Anomala orientalis Spherophorus spp. Hyperodes spp. Ataniuis spretulus and Aphodius spp Tipula paludosa scapteriscus spp.
Xytect™ 75WSP Insecticide will suppress cutworms and chinch bugs.	

Xytect™ 75WSP Insecticide can be applied on turfgrass in the following sites: Home lawns, Business and office complexes, Shopping complexes, Multi-family residential complexes, Golf courses, Airports , Cemeteries, Parks, Playgrounds, Athletic fields, Sod farms.

Xytect™ 75WSP Insecticide has adequate residual activity that applications can be made preceding the egg laying activity of the target pests. Best control is achieved when applications are made prior to egg hatch of the pests. Sufficient irrigation or rainfall is required to move the active ingredient through the thatch.

Avoid application when infested turfgrass areas are water-logged or soil beneath turf is saturated with water. These conditions prevent thorough and consistent distribution. Best results are achieved when rainfall or irrigation after

application will penetrate vertically in the soil column carrying the active ingredient into the zone where insects are normally located.

Do not exceed a total of 8.6 ounces application (0.4 lb of active ingredient) per acre per year.

APPLICATION EQUIPMENT FOR USE ON TURFGRASS

Xytect™ 75WSP Insecticide should be diluted with enough water to provide adequate volume to promote thorough distribution into the pest zone. Use only accurately calibrated equipment for application to turfgrass. Apply a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Calibration should be performed on a regular basis to ensure that equipment is distributing product properly.

Use Site: TURFGRASS	
To control Larvae of:	RATE
European Crane Fly Annual bluegrass weevil Green June beetle Asiatic garden beetle Japanese beetle Billbug Northern masked chafer Black turfgrass ateniuis Oriental beetle Cutworms (suppression) Phyllophaga spp. European chafer Southern masked chafer	Apply 1.6 ounces (1 packet) per 8,250 to 11,000 sq ft). Make application prior to egg hatch of grubs, billbugs, annual bluegrass weevil, and European Crane Fry to maximize control.
For chinch bugs (suppression) and mole crickets apply 1.6 ounces (1 packet) per 8,250 sq. ft. For suppression of chinchbugs, make application before the hatching of the first instar nymphs.	
For control of mole crickets make application before or during the peak egg hatch period. If adults or large nymphs are actively tunneling, Xytect™ 75WSP Insecticide application should be combined with a curative insecticide. Follow label instructions for other insecticides when tank-mixing.	

Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application.

Notes and Restrictions for Turf Grass:
Irrigation or rainfall should occur within 24 hours after application to move the active ingredient through the thatch.

- Do not apply more than 8.6 ounces (0.4 lb of active ingredient) per acre per year.
- Avoid mowing turf or lawn area, until after adequate irrigation or rainfall has occurred.

Use Site: TREES, SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, GROUNDCOVERS AND INTERIOR PLANTSCAPES	
(Only in and around Industrial and Commercial Buildings and Residential Areas)	
PEST	RATE
Adelgids Aphids Japanese beetles Lace bugs Leaf beetles (Including elm and viburnum leaf beetles) Leafhoppers (Including glassy-winged sharpshooter) Mealybugs Psyllids Sawfly larvae Thrips (suppression) Whiteflies	Apply 1.6 ounces (1 packet) of Xytect™ 75WSP Insecticide per 300 gallons of water. Make foliar applications before high pest populations become established. Reapply on an as needed basis.
To control White grub larvae, (such as Japanese beetle larvae, Chafers, Phyllophaga spp. Asiatic garden beetle, Oriental beetle) apply 1.6 ounces (1 packet) per 8,250 to 11,000 sq ft.	

Make broadcast applications by mixing specified rate in enough water to uniformly cover the treated area. Do not use less than 2 gallons of water per 1000 sq ft. If necessary, irrigate thoroughly to incorporate Xytect™ 75WSP Insecticide into the upper soil profile.

Refer to use directions specific for FLOWERS and GROUND COVERS concerning additional use directions.

Use Site: TREES, SHRUBS, FLOWERS AND GROUNDCOVERS	
(Only in and around industrial and commercial buildings and residential areas, and state, national, and private wooded and forested areas)	
PEST	RATE
Adelgids Asian longhorn beetle Emerald ash borer Eucalyptus longhorn beetle Japanese beetles Leafminers (including birch, elm, citrus, and boxwood leafminers) Sawfly larvae Aphids Lace bugs Mealybugs Soft scales Armored scales (suppression) Pine tip moth larvae Thrips (suppression) Leaf beetles (including elm and viburnum leaf beetles) Black vine weevil larvae Psyllids White grub larvae Plant Bugs Leafhoppers (including glassywinged sharpshooter) Royal Palm Bugs Whiteflies Flatheaded borers (including bronze birch and alder borer) Roundheaded borers	<p>For TREES apply 1.6 ounces (1 packet) of Xytect™ 75WSP Insecticide per 24 to 48 inches of cumulative trunk diameter.</p> <p>For SHRUBS apply 1.6 ounces (1 packet) of Xytect™ 75WSP Insecticide per 24 to 48 foot of shrub height.</p> <p>For FLOWERS and GROUNDCOVERS apply 1.6 ounces (1 packet) of Xytect™ 75WSP Insecticide per 8,250 to 11,000 sq ft.</p>

Application Techniques:

TREES	SHRUBS
<p>Soil Injection GRID SYSTEM: Make applications in a grid pattern on 2.5 foot centers within the drip line of the tree. CIRCLE SYSTEM: Make applications in holes evenly spaced approximately 2 – 3 feet apart in a circle within the drip line of the tree. Larger trees may require additional application circles. BASAL SYSTEM: Make applications into holes evenly spaced around the base of the tree trunk no more than 6 to 12 Inches out from the base.</p> <p>Soil Drench Apply in no less than 10 gallons of water per 1000 square feet as a drench around the base of the tree, directed to the root zone. Any plastic or other barrier that may prevent drench solution from reaching the root zone must be removed.</p> <p>Notes and Restrictions for Trees:</p> <ul style="list-style-type: none"> • Use sufficient water to be able to inject an equal amount of solution in each hole. • Use low pressure and sufficient solution for thorough distribution into the treatment zone. • Maintain soil moisture for 7 to 10 days. • Do not use less than 4 holes per tree. • No Soil Injection Applications Allowed In Nassau or Suffolk Counties of New York. • Application to trees already heavily infested with borers listed may not prevent the eventual loss of the trees. 	<p>Soil Injection Apply to individual plants using dosage indicated.</p> <p>Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.</p> <p>Notes and Restrictions for Shrubs:</p> <ul style="list-style-type: none"> • Mix required dosage in sufficient water to inject an equal amount of solution in each hole. • Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Maintain soil moisture for 7 to 10 days. • Do not use less than 4 holes per shrub. • No Soil Injection Applications Allowed In Nassau or Suffolk Counties of New York. <p>FLOWERS and GROUNDCOVERS Apply as a broadcast treatment and incorporate into the soil before piling or apply after plants are established. If application is made to established plants, best control is achieved by irrigating after application.</p>

Use site: PECAN	
(Only in and around residential area) (Use on pecans not permitted in California unless directed by specific supplemental labeling)	
PEST	RATE
Yellow pecan aphid Pecan spittlebug Black margined aphid Pecan stem phylloxera Pecan leaf phylloxera	Apply 1.6 ounces (1 packet) per 300 gallons of water OR 2.1 ounces per acre ¹ .

Make foliar applications as pest pressure begins to increase. Make a second application 10 to 14 days after first if field scouting reveals continued pest pressure. Use of an organosilicone based spray adjuvant at recommended rate can insure thorough coverage of foliage.

- Notes and Restrictions for residential Pecan Trees:
- Do not apply more than a total of 6.3 ounces of Xytect™ 75WSP Insecticide per acre per year.
 - Do not make more than 3 applications.
 - Allow 10 or more days between applications.

¹ The amount of Xytect™ 75WSP Insecticide required per acre depends on tree size and/or volume of foliage. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees with full foliage.

Use site: GRAPES	
(For use only in and around industrial and commercial buildings and residential areas)	
PEST	RATE
Leafhoppers (including glassy-winged sharpshooter) Mealybugs	Apply 1.6 ounces (1 packet) per 300 gallons of water OR 1.0 ounces per acre as a foliar spray using 200 gallons of water per acre.

- Notes and Restrictions for residential Grapes:
- Do not apply more than a total of 2.0 ounces of Xytect™ 75WSP Insecticide per acre per year.
 - Allow at least 14 days between applications.
 - Applications may be applied up to and including day of harvest.

Use site: POME FRUITS	
(only in and around residential area) Includes: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental), Quince	
PEST	RATE
Aphids (except Woolly apple aphid) Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs* San Jose Scale*	Apply 1.6 ounces (1 packet) per 300 gallons of water OR 2.1 ounces per acre ¹

Notes and Restrictions for residential Pome Fruits:

- Apply specified dosage as foliar spray as needed after petal-fall is complete.
- For control of rosy apple aphid, apply prior to leafrolling caused by the pest.
- For first generation leafminer control, make first application as soon as petal fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping a single application may result in suppression only. Xytect™ 75WSP Insecticide will not control late stage larvae.

- For San Jose Scale, time applications to the craw/tar stage. Treat each generation.
- For late season (preharvest) control of leafhopper species, apply Xytect™ 75WSP Insecticide while most leafhoppers are in the nymphal stage.
- For optimal control of mealybug, insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybug.
- Do not apply more than 2.1 ounces per acre in a single application. Do not make more than 5 applications.
- Allow 10 or more days between applications.
- Allow at least 7 days between last application and harvest.
- Not for use in California for control on pears.

¹ The amount of Xytect™ 75WSP Insecticide required per acre depends on tree size and/or volume of foliage. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees with full foliage.

APPLICATION TO ORNAMENTALS

Xytect™ 75WSP Insecticide can be applied to ornamental plants in commercial and residential landscapes and interior plantscapes. Xytect™ 75WSP Insecticide is a systemic insecticide that is transported within the plant system from the roots to upper foliage. Xytect™ 75WSP Insecticide must be applied into a growing area of the plant that allows absorption of the active ingredient. Adding soluble nitrogen type fertilizers to the spray solution when appropriate can promote the uptake of the active ingredient.

Application can be made by foliar application or soil applications; including soil injection, drenches, and broadcast sprays. Foliar applications offer locally systemic activity against insect pests.

The systemic translocation of active ingredient will be slower when applied to woody plants with soil applications. This delay can take 60 days or longer depending on species and size of plant. To offset this, make applications before anticipated pest infestation.

For outdoor ornamentals, broadcast applications cannot exceed a total of 8.6 ounces (0.4 lb of active ingredient) per acre per year.

ANT MANAGEMENT PROGRAMS

Use Xytect™ 75WSP Insecticide to control aphids, scale insects, mealybugs and other sucking pests on ornamentals with ant populations because it removes honeydew as a food source. To enhance control of ants, supplement with residual sprays, bait placements or other ant control tactics.

NOTE: Not for use in commercial greenhouses, nurseries, or on grasses grown for seed, or on commercial fruit and nut trees.

APPLICATION EQUIPMENT FOR FOLIAR APPLICATIONS

Xytect™ 75WSP Insecticide mixes readily with water and may be used in many types of application equipment. Add a commercial spreader/sticker to promote coverage on hard to wet foliage such as holly, pine, or ivy.

Xytect™ 75WSP Insecticide is compatible with many commonly used fungicides, miticides, liquid fertilizers, and other insecticides. If applicator has no prior experience with a particular tank mix, physical compatibility should be checked by making a small clear jar test using correct proportions of products to be tank mixed.

Do not apply through any irrigation system

RESTRICTIONS

- Do not graze treated areas or use clippings from treated areas for feed or forage.
- Avoid runoff or puddling of irrigation water following application.
- Keep children and pets off treated area until dry.
- Avoid application of Xytect™ 75WSP Insecticide to areas which are water logged or saturated, which will not allow penetration into the root zone of the plant.
- Do not apply more than 8.6 ounces (0.4 lb of active ingredient) per acre per year.
- Treated areas may be replanted with any crop specified on an imidacloprid label, or with any crop for which a tolerance exists for the active ingredient.
- For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed.

CONDITIONS OF SALE AND WARRANTY

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributors, or the Seller. All such risks shall be assumed by the Buyer.

Rainbow Treecare Scientific Advancements, its Supplemental Distributors and the Seller warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. NEITHER RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS NOR ITS SUPPLEMENTAL DISTRIBUTORS MAKE ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS. BUYER'S EXCLUSIVE REMEDY AND THE EXCLUSIVE LIABILITY OF RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, ITS SUPPLEMENTAL DISTRIBUTORS AND THE SELLER FOR ANY AND ALL CLAIMS, LOSSES,

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No employee or agent of RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS, its Supplemental Distributor, or the Seller is authorized to vary or exceed the terms of this Warranty in any other manner.



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MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:

RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS
2239 Edgewood Ave. S.
Minneapolis, MN 55426

EMERGENCY TELEPHONE NUMBERS:

(800) 424-9300 (CHEMTREC, transportation and spills)

PRODUCT NAME : XYTECT™ 75WSP INSECTICIDE
CHEMICAL NAME : 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine
CHEMICAL FAMILY : Chloronicotinyl insecticide
PRODUCT CODE : EPA Reg. No. 42750-117-74779

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Imidacloprid	75.0	138261-41-3	Not estab.	Not estab.

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

HEALTH HAZARDS: Mildly irritating to the eyes and skin. May be harmful if swallowed.

PHYSICAL HAZARDS: Can decompose at high temperatures releasing toxic gases.

ENVIRONMENTAL HAZARDS: Extremely toxic to fish, water organisms and bees. Keep out of waterways.

SECTION 4 - FIRST AID MEASURES

IF SWALLOWED: Call physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

IF IN EYES: Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists.

IF INHALED: Remove victim to fresh air. Get medical attention if symptoms develop.

IF ON SKIN: Remove contaminated clothing. Wash skin with plenty of soap and water. Get medical attention if irritation persists.

NOTE TO PHYSICIAN: No specific antidote available, treat symptomatically.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

FLASHPOINT (method): Will not flash

FLAMMABLE LIMITS (LFL-UFL): Unknown.

FIRE AND EXPLOSION HAZARD: Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off.

FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen cyanide, Hydrogen chloride, Carbon monoxide, Nitrogen oxides.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Vacuum or sweep up material and place in a container for reuse or disposal.

LARGE SPILL: Avoid creating dust cloud. Vacuum or sweep up material and place in a container for reuse or disposal. Reduce airborne dust and prevent scattering by moistening with water. Pick up wash liquid with additional absorbent and place in a disposable container. After removal, flush contaminated area thoroughly with water.

This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Minimize dust generation and accumulation.

STORAGE: Keep container closed when not in use. Keep away from food, feed and drinking water. Store in a well ventilated dry place away from heat.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 HOUR TWA): (Refer to Section 3)

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION - Safety goggles

CLOTHING - Long-sleeved shirt and long pants, Chemical-resistant footwear plus socks

GLOVES - Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC), viton

RESPIRATOR – Not required when handled under normal conditions. When handling in enclosed areas with inadequate ventilation, use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

Discard clothing and other absorbent materials that have been heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: white to gray powder

ODOR: No appreciable odor

BULK DENSITY: 30-35 lbs/cu ft

pH: 6.7

VAPOR PRESSURE: 1.5×10^{-9} mmHg @ 20C

WATER SOLUBILITY: Dispersable

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.

CONDITIONS TO AVOID: Avoid temperatures above 100°F (38°C) for prolonged period of time. Strong exothermic reaction can occur above 390°F (200°C)

INCOMPATIBILITY WITH OTHER MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, Oxides of nitrogen and carbon.

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD ₅₀ (rat)	- > 4,500 mg/Kg
Dermal LD ₅₀ (rat)	- > 2,000 mg/Kg
Inhalation LC ₅₀ (rat)	- > 5.0 mg/L
Eye Irritation (rabbit)	- Mild
Skin Irritation (rabbit)	- Slight
Sensitization (guinea pig)	- Non-sensitizer

CARCINOGEN STATUS:

OSHA -	Not listed.
NTP -	Not listed.
IARC -	Not listed.

MUTAGENIC DATA: Little or no evidence of mutagenic effects during *in vivo* or *in vitro* studies.

ADDITIONAL DATA: No reproductive or teratogenic (birth defect) effects at normal exposure levels.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This product is highly toxic to aquatic invertebrates. Keep out of water bodies. Extremely toxic to bees by direct exposure or residues on treated crop. Do not apply to or allow drift on blooming crops that bees may visit.

FISH TOXICITY: (Technical)

96 hour LC₅₀, Rainbow trout - 211 mg/L

96 hour LC₅₀, Bluegill - unknown

AVIAN TOXICITY: (Technical)

Oral LD₅₀, Bobwhite quail - 152 mg/Kg

Oral LD₅₀, Mallard duck - unknown

BEE TOXICITY:

Contact LD₅₀ – Highly toxic.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE: Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations.

CONTAINER: Completely empty container into processing equipment. Then dispose of empty container in sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION:	Not regulated (all sizes)
DOT HAZARD CLASS:	N/A
UN NUMBER:	N/A
DOT PACKING GROUP:	N/A
DOT PRIMARY/SECONDARY LABEL:	N/A
DOT PRIMARY/SECONDARY PLACARD:	N/A
DOT EMERGENCY RESPONSE GUIDE #:	N/A

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY:	- No components listed
SARA TITLE III STATUS:	
311/312 Hazard Categories	- Immediate Health Hazard
313 Toxic Chemicals	- None

SECTION 16 - OTHER INFORMATION

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Rainbow Treecare Scientific Advancements knowledge. Rainbow Treecare Scientific Advancements makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

REVISED DATE:	September, 2006
REVISED FOR:	Initial draft

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY TO HUMANS
FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED
APPLICATORS OR PERSONS UNDER THEIR DIRECT
SUPERVISION, AND ONLY FOR THOSE USES COVERED BY
THE CERTIFIED APPLICATOR'S CERTIFICATION.

TREE-äge®

Injected insecticide for two year control of listed arthropod
pests in deciduous, coniferous, and palm trees

Active Ingredient:
Enamectin Benzoate¹ 4.0%
Other Ingredients: 96.0%
Total: 100.0%

¹CAS No. 155569-91-8

Contains 0.36 lbs. emamectin per gallon.

EPA Reg. No. 100-1309-74578

**KEEP OUT OF REACH OF CHILDREN.
WARNING/AVISO**

*Si usted no entiende la etiqueta, busque a alguien para que se la explique a
usted en detalle. (If you do not understand the label, find someone to explain it
to you in detail.)*

See additional precautionary statements and directions for use on label in booklet.

SCPPL ABJ 1309A-LIC 1210 334490

Net Contents: 1 Quart, 2 Fluid Ounces (1 liter)

Product ID: 040-4100



4019-7483 02-08-11 SCP 01-02 (02-09-11)
TREE-age - 1 liter booklet - Mech
SCP 3313... 3970... 4019...

Print Size: - Bkit: 3" wide X 5.625" high
Base: 3.5" wide X 5.625" high
Pantone colors: Black, PMS 145, PMS 638,
PMS 3415, PMS 7542
No. of pages: 12

NOTES

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING/AVISO: Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN

Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Vomiting within one-half hour of exposure can minimize toxicity following accidental ingestion of the product; rapidly after exposure (< 15 minutes) administer repeatedly medical charcoal in a large quantity of water or ipecac. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emamectin benzoate exposure.

PRECAUTIONARY STATEMENTS (continued)

Have the product container or label with you when calling a poison control center or doctor; or going for treatment.

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance
(Human or Animal),
Or Chemical Emergency Assistance
(Spill, Leak, Fire or Accident)
Call 1-800-255-3924

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves (Category C) such as barrier laminate; butyl rubber ≥14 mils; nitrile rubber ≥14 mils; or neoprene rubber ≥14 mils.
- Shoes and socks
- Protective eyewear

ENVIRONMENTAL HAZARDS

This product is highly toxic to fish, mammals and aquatic invertebrates. Do not apply directly to water; to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater. This product is highly toxic to bees exposed to direct treatment or residues on blooming trees.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ARBORJET, Inc. or Seller.

To the extent permitted by applicable law, Buyer and User agree to hold ARBORJET and Seller harmless for any claims relating to such factors.

ARBORJET warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or ARBORJET, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, ARBORJET MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall ARBORJET be liable for any incidental, consequential or special damages resulting from the use or handling of this product.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ARBORJET AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ARBORJET OR SELLER, THE REPLACEMENT OF THE PRODUCT.

ARBORJET and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of ARBORJET.

DIRECTIONS FOR USE RESTRICTED USE PESTICIDE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

IMPORTANT: Read entire label before using this product. Failure to follow label instructions may result in poor control or tree injury. Failure to follow label directions may cause injury to people, animals and environment.

APPLICATION TO TREES

TREE-äge is for control of mature and immature arthropod pests of deciduous, coniferous, and palm trees including, but not limited to, those growing in residential and commercial landscapes, parks, plantations, seed orchards, and forested sites (in private, municipal, state, tribal and national areas). TREE-äge contains the active ingredient emamectin benzoate and is formulated to translocate in the tree's vascular system when injected. This product must be placed into active sapwood and will actively control pest for up to two years.

USE DIRECTIONS

TREE-äge is designed for use with tree injection devices that meet the label and dose requirements (for example, the Arborjet Tree Injection Systems) for the control of listed pests of trees. Follow manufacturer's directions for equipment use.

Dosages are based on the Diameter (in inches) of the tree at Breast Height (DBH"). Tree DBH is the outside bark diameter at breast height. Breast height is defined as 4.5 feet (1.37m) above the ground on the uphill side of the tree. For the purposes of determining breast height, the ground includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line.

The diameter is determined by measuring the circumference of the tree at DBH", and dividing circumference (in inches) by three (3). To determine DBH" for multi-stemmed woody ornamentals, measure the DBH" for each stem or branch and add together for the total DBH" per tree.

Placement of Application/Injection Sites: Inject at the base of the tree. Inject into the stem within 12" of the soil, into the trunk flare or into tree roots exposing them by shallow excavation. Make applications into intact, healthy sapwood. Do not inject into injured areas or areas with decay. Select injection sites associated with stem growth.

Number of Injection Sites: Work around the tree, spacing injection sites approximately every 6.0 inches of tree's circumference.

Drill Depth: Drill through the bark then 5/8" to 1-5/8" (hardwoods) or 1-5/8" to 2" (conifers) into the sapwood with the appropriate sized drill bit. Use clean, sharp drill bits. Brad point bits are recommended. Precautions should be taken to avoid diseased areas and transferring infected tissues to other injection sites.

Resinous Conifers

In resinous conifers, such as pine and spruce, start the injection immediately after drilling into the sapwood. A prolonged delay may reduce uptake on account of resin flow into opening.

WHEN TO TREAT

TREE-äge contains the active ingredient emamectin benzoate which is a glycoside insecticide. It is active against immature and adult stages of arthropods. The primary route of toxicity is through ingestion.

ENVIRONMENTAL CONDITIONS: Uptake of TREE-äge is dependent upon the tree's transpiration. Transpiration is dependent on a number of abiotic and biotic factors, such as soil moisture, soil and ambient temperature, and time of day. For uptake, apply when soil is moist, soil temperatures are above 45°F, ambient temperatures are between 40° to 90°F, and during the 24 hour period when transpiration is greatest, typically before 2:00 PM. Applications to drought or heat stressed trees may result in injury to tree tissue, poor treatment and subsequent control. Avoid treating trees that are moisture stressed or suffering from herbicide damage.

MONITOR TREE HEALTH and PEST INFESTATIONS: Effective injection treatment is favored by a full canopy (i.e., leaves) and healthy vascular system. Once these tissues are compromised by arthropod damage (larval galleries, defoliation, leaf mining, etc.) an effective and uniform application of TREE-äge may be difficult to achieve and subsequent control may be poor. Optimally, treatment should be made preventively at least 2 to 3 weeks before arthropods historically infest the host tree. As a result of systemic movement and longevity of TREE-äge in trees, this interval may be extended much earlier to 6 months should tree dormancy, adverse weather, management, asynchronous life cycle of pests, etc., allow earlier application timing.

TREE-äge may also be effective as a remedial treatment against some pests, such as those with slower development or if multiple life stages are susceptible to TREE-äge. Pests that attack the stem and branches such as bark beetles and clearwing borers may disrupt vascular tissue resulting in poor distribution in an infested tree. This includes the initial larval stages of pests, such as bark beetles and clearwing borers, that attack the stem and branches, which may disrupt vascular tissue resulting in poor distribution of the product in an infested tree. However, control may be achieved if larvae come into contact or feed on TREE-äge treated tissues.

USE

Use as formulated or dilute with equivalent 1 to 3 volumes of water or more, as necessary.

USE RATE TABLE

Tree Diameter (DBH) (Inches)	Low ml. product/ tree	Medium ml. product/ tree	Medium - High ml. product/ tree	High ml. product/ tree	Number of Injection Sites
4 to 6	15	25	50	-	3
7 to 9	20	40	80	-	4
10 to 12	30	55	110	165	5
13 to 15	35	70	140	210	6
16 to 18	40	75	150	225	7
19 to 21	50	100	200	300	8
22 to 24	-	115	230	345	10
25 to 27	-	130	260	390	11
28 to 30	-	145	290	435	12
31 to 33	-	160	320	480	13
34 to 36	-	175	350	525	15
37 to 39	-	190	380	570	16
40 to 42	-	205	410	615	17
43 to 45	-	220	440	660	18
46 to 48	-	235	470	705	20
49 to 51	-	250	500	750	21
52 to 54	-	265	530	795	22
55 to 57	-	280	560	840	23
58 to 60	-	295	590	885	25
61 to 63	-	310	620	930	26
64 to 66	-	325	650	975	27
67 to 69	-	340	680	1020	28
70 to 72	-	355	710	1065	30

The use of low, medium, medium high and high rates are based on the professional judgment of the applicator as to what constitutes a low, medium or high infestation.

Higher rates tend to provide longer residual and control of more difficult to control insects. See **Target Pest** for additional information in choosing the amount of product to apply.

Applications in Trees			
Tree Tissue	Target Pest	Recommended Rate ¹	Comments
Seed and Cone	Pine Coneworm (<i>Dioryctria</i> spp) Pine Cone Seed Bug (suppression of <i>Leptoglossus</i> and <i>Tetyra</i> spp in the year of treatment)	Medium to High	For optimal control apply in the fall for early season pests or at least 30 days before insect attack.
Bud and Leaf	Bagworm Fall Webworm Gypsy Moth Mimosa Webworm Oak Worm Tussock Moth Leafminers (including Lepidoptera Coleoptera Hymenoptera) Honeylocust Plant Bug Pine Needle Scale Red Palm Mite Sawfly (including Elm, Pine)	Low to High	Apply at least 2-3 weeks before the pest has historically been present. Consult with local extension agent for when this will occur in your area.
	Tent Caterpillars (including Eastern, Forest, Pacific, and Western) Western Spruce Budworm Winter Moth	Low to Medium	

Applications in Trees

Tree Tissue	Target Pest	Recommended Rate ¹	Comments
Shoot, Stem, Trunk and Branch	Flatheaded borers (including adult and larvae of Emerald Ash Borer)	Low to High	For control apply at least 30 days before historical egg hatch or adult flight and to trees whose vascular tissue is not damaged.
	Clearwing borers (including Ash and Sequoia Pine Pitch Tube Moth)	Low to Medium	
	Roundheaded borers excluding (Asian longhorn borer)	Medium to High	If vascular tissue is damaged or plugged by insect galleries, nematodes or fungi, uniform treatment and control may not be achieved.
	Scolytids (bark beetles) Ips Engraver Beetles Mountain Pine Beetle Southern Pine Beetle Spruce Beetle Western Pine Beetle		
	Pinewood Nematode		

¹Use medium to high rates for remedial and longer residual control.

Compatibility

Do not mix TREE-äge before injection with other products such as insecticides, fungicides, plant growth regulators, surfactants, adjuvants, and fertilizers.

RESTRICTION

Do not apply to trees that may yield food consumed by humans or used in animal feed.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a cool, dry place, away from children and pets. Keep from freezing.

Pesticide Disposal: Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

TREE-äge is a registered trademark of Arborjet, Inc.

Manufactured for: Arborjet Inc.
99 Blueberry Hill Road
Woburn MA 01801

SCPPLABJ 1309A-LIC 1210
334490

ARBORJET®
Revolutionary Plant Health Solutions
www.arborjet.com

FIRST AID:

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Vomiting within one-half hour of exposure can minimize toxicity following accidental ingestion of the product; rapidly after exposure (< 15 minutes) administer repeatedly medical charcoal in a large quantity of water or ipecac. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emamectin benzoate exposure.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal), Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call 1-800-255-3924.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

STORAGE AND DISPOSAL:

See booklet for Storage and Disposal instructions.

TREE-äge is a registered trademark of Arborjet, Inc.

SCPPLABJ 1309A-LIC 1210
334490



MATERIAL SAFETY DATA SHEET

Syngenta Crop Protection, Inc.
Post Office Box 18300
Greensboro, NC 27419

In Case of Emergency, Call
1-800-888-8372

1. PRODUCT IDENTIFICATION

Product Name: **TREE-äge** Product No.: A16297A
EPA Signal Word: **Warning**
Active Ingredient(%): Emamectin Benzoate (4%) CAS No.: 155569-91-8
Chemical Name: Avermectin B1, 4"-deoxy-4"-(methylamino)-,(4"R)-, benzoate (salt)
Chemical Class: Insecticide
EPA Registration Number(s): Not Available Section(s) Revised: **New**

2. HAZARDS IDENTIFICATION

Health and Environmental

Causes eye and skin irritation. May be harmful if swallowed. Harmful if inhaled. Vapors may cause drowsiness and dizziness.

Inhalation can cause irritation to the respiratory tract and can result in chemical pneumonitis if aspirated. Ingestion results in central nervous system effects such as muscle tremors, decreased activity, ataxia (unsteadiness or incoordination), and dilated pupils (mydriasis).

Hazardous Decomposition Products

May decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: **Blue liquid**

Odor: **Aromatic**

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Tetrahydrofurfuryl Alcohol (THFA)	Not Established	Not Established	2 ppm (TWA) ****	No
Emamectin Benzoate (4%)	Not Established	Not Established	0.02 mg/m ³ TWA ***	No

*** Syngenta Occupational Exposure Limit (OEL)

**** Recommended by AIHA (American Industrial Hygiene Association)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
Syngenta Hazard Category: C, S

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison

Product Name: **TREE-äge**

Page: 1

control center or doctor, or going for treatment.

- Ingestion:** If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Notes to Physician

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Early signs of intoxication include dilation of pupils, muscular incoordination and muscular tremors. Vomiting within one-half hour of exposure can minimize toxicity following accidental ingestion of the product; rapidly after exposure (<15 minutes) administer repeatedly medical charcoal in a large quantity of water or ipecac. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms and measurements.

In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emamectin benzoate exposure.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

- Flash Point (Test Method): > 226°F (Pensky-Martens CC)
- Flammable Limits (% in Air): Lower: Not Applicable Upper: Not Applicable
- Autoignition Temperature: 662°F
- Flammability: Not Applicable

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use dry chemical, foam or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

- Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
- Eye Contact: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- Skin Contact: Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
- Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Blue liquid
- Odor: Aromatic
- Melting Point: Not Applicable
- Boiling Point: Not Available
- Specific Gravity/Density: 1.08 g/cm³ @ 68°F (20°C)
- pH: 4.6 (1% solution in deionized H₂O @ 77°F [25°C])

Solubility in H₂O

- Enamectin Benzoate: 30 - 50 ppm (pH 7)

Vapor Pressure

- Enamectin Benzoate: 3 x 10⁻⁸ mmHg @ 70°F (21°C)

10. STABILITY AND REACTIVITY

- Stability: Stable under normal use and storage conditions.
- Hazardous Polymerization: Will not occur.
- Conditions to Avoid: None known.
- Materials to Avoid: None known.
- Hazardous Decomposition Products: May decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

- Ingestion: Oral (LD₅₀ Female Rat) : 3129 mg/kg body weight
- Dermal: Dermal (LD₅₀ Rat) : > 5000 mg/kg body weight
- Inhalation:

Inhalation (LC50 Rat) : > 2.54 mg/l air - 4 hours
Eye Contact: Severely Irritating (Rabbit)
Skin Contact: Slightly Irritating (Rabbit)
Skin Sensitization: Not a Sensitizer (Guinea Pig)

Reproductive/Developmental Effects

Emamectin Benzoate: Developmental and reproductive toxicity observed in dosages that are toxic to mature animals.

Chronic/Subchronic Toxicity Studies

Emamectin Benzoate: Tremors and nerve lesions observed at lowest dose tested in rabbits. Bladder changes reported in rats.

Carcinogenicity

Emamectin Benzoate: None observed.

Other Toxicity Information

None

Toxicity of Other Components

Tetrahydrofurfuryl Alcohol (THFA)

May be harmful if swallowed. Causes respiratory tract irritation. Causes skin irritation. May cause digestive tract irritation. Causes severe eye irritation. Inhalation overexposure may cause dizziness, incoordination and unconsciousness. Chronic overexposure may affect the kidney.

Target Organs

Active Ingredients

Emamectin Benzoate: Central nervous system, bladder

Inert Ingredients

Tetrahydrofurfuryl Alcohol (THFA): Digestive tract, respiratory tract, skin, eye, CNS, kidney

12. ECOLOGICAL INFORMATION

Summary of Effects

Emamectin Benzoate:

Very toxic to aquatic life with long lasting effects.

Ecotoxicity Effects

Emamectin Benzoate:

Fish (Rainbow Trout) 96-hour LC50 174 ppb

Fish (Bluegill Sunfish) 96-hour LC50 180 ppb

Green Algae 5-day EC50 > 3.9 ppb

Bird (Bobwhite Quail) LD50 Oral 264 mg/kg

Bee (Contact) LD50 0.0035 ug/bee

Invertebrate (Water Flea) 48-hour EC50 1.0 ppb

Environmental Fate

Emamectin Benzoate:

The information presented here is for the active ingredient, emamectin benzoate.

Low bioaccumulation potential. Persistent in soil. Stable in water. Immobile in soil. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA

Not regulated by US DOT.

Air Transport - NAFTA

Not regulated by US DOT.

B/L Freight Classification

Insecticides, NOI, O/T Poison

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Emamectin Benzoate), Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3082

Packing Group: PG III

IMDG EMS #: F-A, S-F

Air Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Emamectin Benzoate), Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3082

Packing Group: PG III

Packing Auth.: 914

Note: Max. inner container 5 liter; Max. single container 450 liter.

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 1
Instability: 0

HMIS Hazard Ratings

Health: 1
Flammability: 1
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 11/30/2007

Revision Date:

Replaces:

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

End of MSDS



PULL HERE TO OPEN ►

Arbotect[®]

20-S

Fungicide

For Dutch Elm Disease and Sycamore Anthracnose

Active Ingredient:

Thiabendazole Hypophosphite (CAS No. 28558-32-9) 26.6%
(equivalent to 20% Thiabendazole)

Other Ingredients:

73.4%

Total:

100.0%

KEEP OUT OF REACH OF CHILDREN.

CAUTION

*See additional precautionary statements and
directions for use inside booklet.*

EPA Reg. No. 100-892

EPA Est. 39578-TX-1

Product of India

Formulated in the USA

SCP 892A-L1K 0308

1 gallon

Net Contents

syngenta[®]

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p align="center">HOT LINE NUMBER</p> <p align="center">For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372</p>	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed. Harmful if inhaled. Avoid breathing spray mist. May irritate skin. Avoid contact with skin or eyes.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wastes.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

The restricted entry interval (REI) is 0 hours.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

The restricted entry interval (REI) is 0 hours.

GENERAL INFORMATION

Arbotect 20-S is a systemic fungicide for use as a flare root injection for prevention of Dutch elm disease (*Ophiostoma ulmi* and *O. novo-ulmi*) on elms (*Ulmus* spp.) and treatment of sycamore anthracnose (*Apiognomonia platani*) on sycamores and London plane trees (*Platanus* spp.). It is recommended that Arbotect 20-S be administered by trained arborists or others trained in injection techniques and in the identification of diseases.

Correct Location for Injector Placement

The flare root area is the transitional zone between the trunk and the root system. Uptake and distribution of Arbotect 20-S is more effective when injections are made into the flare roots. In addition, wounds created in the flare root area close more rapidly in comparison to wounds above the flare root area.

Tree Preparation

1. Heavy, thick, or loose outer bark may be carefully shaved to form a smoother injection point and to ensure the operator that the drill hole penetrates through the bark to the xylem.
2. If the flare roots are not clearly exposed, carefully remove enough soil from the base of the tree to uncover the top of the flare roots. Brush away loose soil.
3. Drill holes through the bark, into the sapwood using a clean, sharp, drill bit (high-helix or brad-point bits are recommended). For best results, change drill bits every 5-10 trees. Drill hole diameter should be adequate to allow insertion of injection tees and formation of an airtight contact between active xylem and the delivery point of the injection tees. Generally, the drill hole should not exceed 1/2 inch in diameter.

Drill hole depth should be adequate to deliver the product into active xylem tissue. Generally, one inch depth is appropriate. Drill perpendicular to the surface of the root flare.

Place injectors 3-6 inches apart around the base of the tree. Do not drill in the valleys between the flare roots or into cankered areas. Drill above these areas into the trunk, then continue into sound sapwood on the flares.

4. Insert into the drilled holes the injection ports ("tees"), which are connected to the plastic tubing. Insert the tees by hand and lightly tap with a small hammer to set in the hole. Do not push the tees past the current year's xylem.
5. Do not dilute Arbotect 20-S with highly alkaline water as a precipitate may form. For hard water or water with high pH, use a deionizer tank or pH stabilizer (for example, muriatic acid) to keep Arbotect 20-S in solution.

Tree Measurement

Measure the diameter of the tree using a tree diameter-tape (D-tape) at 4 1/2 feet above the ground. This is the diameter at breast height (DBH). If only a regular tape is available, measure the tree circumference and divide that number by 3.14 to obtain the diameter.

Injection

For best results, use a pressurized system that holds constant pressure at 15-20 psi. Pull out two tees, on opposite sides of the tree, and bleed the air out of the harness. When all air bubbles have been removed, insert the two tees, adjust the pressure to 15-20 psi, and check for leaks. Do not add the Arbotect 20-S until the system is running.

After the injection is complete, remove injection tees and leave drill holes unplugged. A water flush to cleanse the hole may assist with wound closure. Soil should be replaced around the root flares. It is not necessary to treat the drill holes with wound paint or other sealing compounds.

The injection system described is meant as an example; please refer to manufacturer's instructions when using other types of tree injection systems.

APPLICATION PROCEDURES

Elm Trees – 1-Year Growing Season Treatment – Aids in the Control of Dutch Elm Disease

Preventive Treatment – For each 5 inches of trunk diameter, inject 1 fl. oz. of Arbotect 20-S in 40 fl. oz. (1¹/₄ qts.) of water to 2 fl. oz. of Arbotect 20-S in 80 fl. oz. (2¹/₂ qts.) of water. Use the higher levels of Arbotect 20-S under high disease pressure situations.

Preventive applications should be made when leaves approach full size, usually in late May or June.

Therapeutic Treatment – For each 5 inches of trunk diameter, inject 2 fl. oz. of Arbotect 20-S in 80 fl. oz. (2¹/₂ qts.) of water to 4 fl. oz. of Arbotect 20-S in 160 fl. oz. of water. Use the higher levels of Arbotect 20-S under high disease pressure situations.

Therapeutic applications should be made as soon as the current year infections are seen, usually in late June through August.

For optimum disease control, preventive treatment is recommended. When a tree shows more than 5% crown symptoms, treatment may not be effective. Treatment should be used in conjunction with an insect control and sanitation program (pruning of diseased limbs) in order to obtain best results. Trees that are 5 inches or less in diameter at chest height should not be treated.

Place injection sites as near to ground level as possible at 3 to 10-inch intervals around the trunk with a maximum hole diameter of 1/2 inch using a minimum of 3 or 4 equally spaced injection points per tree.

Elm Trees – 3-Year Growing Season Treatment – For Preventive Treatment of Dutch Elm Disease

Inject 12 fl. oz. of Arbotect 20-S for each 5 inches of trunk diameter. Dilute each 2.0 fl. oz. of Arbotect 20-S with 1 gal. of water. Inject into any exposed root flares, below ground, once every three years. Place injection sites into root flares at 3-10 inch intervals around the tree with a maximum hole diameter of 1/4 inch. Where needed, the root flares will need to be exposed through soil excavation. Trees treated into trunk wood will not be as effectively protected. A typical tree will require 1.3 injection sites per diameter inch. For best results, injections should be made after the tree is fully leafed and the seeds have dropped, through late summer or early fall.

- Do not use this treatment if trees are less than 10 inches in diameter.
- If pressure injection is to be used, do not exceed 30 psi.
- Do not dilute Arbotect 20-S with highly alkaline water as a precipitate may form. Pre-test your water source by mixing a small amount of Arbotect 20-S with water. If the solution turns white, use different water.

Retreatment

Arbotect 20-S will provide three growing seasons of protection in most situations. However, protection in the third year after treatment will be slightly less than the first two years. In high disease pressure situations and for trees over 30 inches in diameter, retreatment may need to be considered during the third growing season after the tree was initially treated.

Therapeutic Treatment of Elms

Before treating a diseased elm with Arbotect 20-S, it is important to first isolate the disease from the tree using tracing techniques or limb removal. Injecting an elm tree that has the Dutch elm disease fungus actively growing will result in the failure of the treatment.

Sycamore Trees and London Plane Trees – 3-Year Growing Season Treatment – Aids in the Control of Sycamore Anthracnose

For each 5 inches of trunk diameter, inject 8 fl. oz. of Arbotect 20-S. (One part Arbotect 20-S should be diluted with between 20 and 40 parts of water). For large trees over 30 inches in diameter, inject up to 12 fl. oz. of Arbotect 20-S per 5 inches of trunk diameter.

For best results, injections should be made after the tree is fully leafed (post infection) through late summer or early fall. Treatments will aid in the control of sycamore anthracnose for up to three growing seasons. Trees over 50 inches diameter may need two consecutive treatments one year apart to obtain the desired level of protection.

Place injection sites at 3-10 inch intervals around the root flares. Trees treated into trunk wood will not be as effectively protected. Use a maximum hole diameter of 1/4 inch using a minimum of 3 or 4 equally spaced injection points per tree. A typical tree will require 1.3 injection sites per diameter inch. It is important that injection sites be placed in root flares at or below ground level.

- Trees that are 5 inches or less in diameter at chest height should not be treated.
- If pressure injection is to be used, do not exceed 30 psi.
- Do not dilute Arbotect 20-S with highly alkaline water as a precipitate may form. Pre-test your water source by mixing a small amount of Arbotect 20-S with water. If the solution turns white, use different water.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

Store in original containers only. Keep container closed when not in use. Do not store near food or feed.


Pesticide Disposal

Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures under the Resource Conservation and Recovery Act.

Container Disposal

Do not reuse container. Triple rinse (or equivalent), then puncture and dispose of in a sanitary landfill or alternatives allowed by State and local authorities.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Arbotect®, the Syngenta logo, and the CP FRAME  are trademarks of a Syngenta Group Company

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For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, Inc.
P. O. Box 18300
Greensboro, North Carolina 27419-8300
www.syngenta-us.com

SCP 892A-L1K 0308

BAR CODE # IS
(01) 0 07 02941 81235
LAST DIGIT IS CHECK DIGIT
UCC/EAN 128



Fungicide

For Dutch Elm Disease and Sycamore
Anthracnose

Active Ingredient:
Thiabendazole Hypophosphite
(CAS No. 28558-32-9) 26.6%
(equivalent to 20% Thiabendazole)

Other Ingredients:	73.4%
Total:	100.0%

See additional precautionary statements and
directions for use inside booklet.

EPA Reg. No. 100-892

EPA Est. 39578-TX-1

Product of India

Formulated in the USA

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trademarks of a Syngenta Group Company

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Manufactured for:
Syngenta Crop Protection, Inc.
P. O. Box 18300
Greensboro, North Carolina 27419-8300
www.syngenta-us.com

SCP 892A-L1K 0308

1 gallon
Net Contents

KEEP OUT OF REACH OF CHILDREN. CAUTION

PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed. Harmful if
inhaled. Avoid breathing spray
mist. May irritate skin. Avoid con-
tact with skin or eyes.

FIRST AID

If swallowed: Call a poison con-
trol center or doctor immediately
for treatment advice. Do not give
any liquid to the person. Do not
induce vomiting unless told to do
so by the poison control center or
doctor. Do not give anything by
mouth to an unconscious person.

If inhaled: Move person to
fresh air. If person is not breath-
ing, call 911 or an ambulance,
then give artificial respiration,
preferably mouth to mouth, if
possible. Call a poison control
center or doctor for further treat-
ment advice.

If on skin or clothing: Take off
contaminated clothing. Rinse
skin immediately with plenty of
water for 15-20 minutes. Call a
poison control center or doctor
for treatment advice.

If in eyes: Hold eye open and
rinse slowly and gently with
water for 15-20 minutes. Remove
contact lenses, if present, after
the first 5 minutes, then continue
rinsing eye. Call a poison control
center or doctor for treatment
advice.

Have the product container or
label with you when calling a
poison control center or doctor,
or going for treatment.

HOT LINE NUMBER: For 24 Hour
Medical Emergency Assistance
(Human or Animal) or Chemical
Emergency Assistance (Spill,
Leak, Fire, or Accident), Call
1-800-888-8372.

Environmental Hazards: Do not
apply directly to water, or to
areas where surface water is
present, or to intertidal areas
below the mean high water
mark. Do not contaminate water
by cleaning of equipment or dis-
posal of wastes.

STORAGE AND DISPOSAL

Do not contaminate water, food,
or feed by storage or disposal.
Open dumping is prohibited.

Pesticide Storage: Store in
original containers only. Keep
container closed when not in use.
Do not store near food or feed.

Pesticide Disposal: Pesticide,
spray mixture, or rinsate that
cannot be used according to
label instructions must be dis-
posed of according to federal,
state, or local procedures under
the Resource Conservation and
Recovery Act.

Container Disposal: Do not
reuse container. Triple rinse (or
equivalent), then puncture and
dispose of in a sanitary landfill or
alternatives allowed by State and
local authorities.

For minor spills, leaks, etc., follow
all precautions indicated on this
label and clean up immediately.
Take special care to avoid con-
tamination of equipment and
facilities during cleanup proce-
dures and disposal of wastes. In
the event of a major spill, fire, or
other emergency, call 1-800-888-
8372, day or night.

syngenta®



MATERIAL SAFETY DATA SHEET

Syngenta Crop Protection, Inc.
Post Office Box 18300
Greensboro, NC 27419

In Case of Emergency, Call
1-800-888-8372

1. PRODUCT IDENTIFICATION

Product Name: **ARBOTECT 20-S** Product No.: A10345A
EPA Signal Word: Caution
Active Ingredient(%): Thiabendazole (26.6%) CAS No.: 148-79-8
Chemical Name: 2-(thiazol-4-yl)benzimidazole
Chemical Class: Benzimidazole Fungicide
EPA Registration Number(s): 100-892 Section(s) Revised: 14

2. HAZARDS IDENTIFICATION

Health and Environmental

Causes mild skin irritation.

Hazardous Decomposition Products

None known.

Physical Properties

Appearance: Yellow orange liquid
Odor: Weak, like hydrogen sulfide

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
No inerts required to be listed				
Thiabendazole (26.6%)	Not Established	Not Established	10 mg/m ³ TWA ***	No

*** Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
Syngenta Hazard Category: B

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

- Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

- | | | |
|------------------------------|-----------------------|-----------------------|
| Flash Point (Test Method): | Not Applicable | |
| Flammable Limits (% in Air): | Lower: Not Applicable | Upper: Not Applicable |
| Autoignition Temperature: | Not Available | |
| Flammability: | Not Applicable | |

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use dry chemical, foam or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

- Ingestion:** Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

- Eye Contact: Where eye contact is likely, use chemical splash goggles.
- Skin Contact: Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.
- Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH certified respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Yellow orange liquid
- Odor: Weak, like hydrogen sulfide
- Melting Point: Not Applicable
- Boiling Point: 212 °F
- Specific Gravity/Density: 1.1 @ 77°F (25°C)
- pH: 2.7 (1% suspension in water)

Solubility in H2O

- Thiabendazole: 30 mg/l (pH 7, pH 10) @ 68°F in water

Vapor Pressure

- Thiabendazole: 4.0 x 10⁽⁻⁹⁾ mmHg @ 77°F (25°C)

10. STABILITY AND REACTIVITY

- Stability: Stable under normal use and storage conditions.
- Hazardous Polymerization: Will not occur.
- Conditions to Avoid: None known.
- Materials to Avoid: Oxidizing agents (e.g., chlorates, nitrates)
- Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

- Ingestion:
- | | |
|----------------------|--------------------------|
| Oral (LD50 Rabbit) : | > 5000 mg/kg body weight |
|----------------------|--------------------------|
- Dermal:
- | | |
|------------------------|--------------------------|
| Dermal (LD50 Rabbit) : | > 5050 mg/kg body weight |
|------------------------|--------------------------|
- Inhalation:
- | | |
|-------------------------|---------------|
| Inhalation (LC50 Rat) : | Not Available |
|-------------------------|---------------|
- Eye Contact: Non-Irritating (Rabbit)
- Skin Contact: Practically Non-Irritating (Rabbit)
- Skin Sensitization: Not a Sensitizer (Guinea Pig)

Reproductive/Developmental Effects

Thiabendazole: Evidence of developmental effects (skeletal defects, cleft palate) observed in animal studies.

Chronic/Subchronic Toxicity Studies

Thiabendazole: Increased incidence of anemia and changes in the gall bladder, kidney, liver, spleen and thyroid gland in rat and dog tests.

No adverse health effects are expected in humans at airborne levels below the occupational exposure limit.

Carcinogenicity

Thiabendazole: None observed.

Other Toxicity Information

None

Toxicity of Other Components

No inerts required to be listed

Not Applicable

Target Organs

Active Ingredients

Thiabendazole: Thyroid, liver, spleen, kidney, gall bladder, blood

Inert Ingredients

No inerts required to be listed:

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Thiabendazole:

Bird (Bobwhite Quail) LD50 Oral > 2250 mg/kg

Fish (Trout) 96-hour LC50 0.56 ppm

Invertebrate (Water Flea) 48-hour EC50 0.31 ppm

Environmental Fate

Thiabendazole:

The information presented here is for the active ingredient, thiabendazole.

Low bioaccumulation potential. Stable in soil and water. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA

Not regulated.

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Thiabendazole), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Thiabendazole)

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Note: This product is currently not regulated for airfreight within the NAFTA region. However, effective 01/01/2011 the above classification must be used.

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Thiabendazole (26.6%) (CAS No. 148-79-8)

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Corrosive D002

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 1
Flammability: 1
Instability: 0

HMIS Hazard Ratings

Health: 1
Flammability: 1
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 6/5/1989

Revision Date: 8/12/2010

Replaces: 9/25/2009

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

End of MSDS



Altosid[®] BRIQUETS

A SUSTAINED RELEASE MOSQUITO GROWTH REGULATOR TO PREVENT ADULT MOSQUITO EMERGENCE (INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (Dry Weight Basis)
(CAS #65733-16-6) 8.62%

OTHER INGREDIENTS: 91.38%
Total 100.00%

This product contains water, therefore the weight of the briquet and percent by weight of active ingredient will vary with hydration. The Ingredient Statement is expressed on a dry weight basis.

EPA Reg. No. 2724-375 EPA Est. No. 2724-TX-1

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

FIRST AID

Call a poison control center or doctor for treatment advice.

- | | |
|-------------------|---|
| If in eyes | <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. |
|-------------------|---|

FIRST AID (CONTINUED)

- | | |
|-------------------------------|---|
| If on skin or clothing | <ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. |
|-------------------------------|---|

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of unused product.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Note to User: Do not remove **ALTOSID[®] Briquets** from container except for immediate use.

Because of the unique mode of action of **ALTOSID[®] Briquets**, users must be familiar with special techniques for accurate evaluation of treatments. See Application Rates and Intervals section of this label or consult local Mosquito Abatement Agency. Effective use of **ALTOSID[®] Briquets** in sites subjected to periodic heavy flow of water requires careful attention to briquet placement and to the possible need for retreatment. Use of the product in storm drains, waste treatment and settling ponds, and similar systems should therefore be limited to experienced pesticide applicators, such as personnel of Mosquito Abatement Districts and Public Health Agencies.

Introduction: The **ALTOSID[®] Briquet** is a formulation designed to release effective levels of **ALTOSID[®] Insect Growth Regulator** up to 30 days under typical environmental conditions. Release of **ALTOSID[®] Insect Growth Regulator** is effected by dissolution of the **ALTOSID[®] Briquet**. If briquets become covered by obstructions such as debris, vegetation, and loose

sediment as a result of high rainfall or flow, normal dispersion of the active ingredient can be inhibited. Water flow may increase the dissolution of the briquet thus reducing the residual life of the briquet. Inspect areas of water flow to determine appropriate retreatment intervals. To assure positive results, place **ALTOSID® Briquets** where they will not be swept away by flushing action. **ALTOSID® Briquets** prevent the emergence of adult mosquitoes including *Anopheles*, *Culex*, *Culiseta*, *Coquillettidia*, and *Mansonia* spp., as well as those of the floodwater mosquito complex (*Aedes*, *Ochlerotatus*, and *Psorophora* spp.) from treated water. Treated larvae continue to develop normally to the pupal stage where they die.

APPLICATION TIMING

Apply **ALTOSID® Briquets** at the beginning of the mosquito season. **ALTOSID® Briquets** provide up to 30 days residual control. Continue treatment through the last brood of the season. Apply at any stage of larval development. **ALTOSID® Briquets** may be applied as a pre-flood treatment prior to wetting events. **ALTOSID® Briquets** will be unaffected in dry down situations and will begin working again during subsequent wetting events until the briquet is exhausted.

NOTE: This insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

APPLICATION SITES

ALTOSID® Briquets are designed to control mosquitoes in small bodies of water. Examples of application sites are: storm drains, catch basins, roadside ditches, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, animal watering troughs, cesspools and septic tanks, waste treatment and settling ponds, flooded crypts, transformer vaults, abandoned swimming pools, tires, construction and other manmade depressions, cattail marshes, water-hyacinth beds, vegetation-choked phosphate pits, pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, treeholes, woodland pools, floodplains, and dredging spoil sites. For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water holding sites in the system to maximize the efficiency of the treatment program.

APPLICATION RATES AND INTERVALS

For mosquito control in non-(or low-) flow, shallow depressions (up to two ft in depth), treat on the basis of surface area placing one **ALTOSID® Briquet** per 100 sq ft. For applications in storm water drainage areas, sewers, and catch basins: Place one **ALTOSID® Briquet** into each catch basin. Follow the chart below to determine the number of **ALTOSID® Briquets** to use in large catch basins. Place one **ALTOSID® Briquet** per 100 sq ft of surface area up to two feet deep for storm water drainage areas. Use one additional **ALTOSID® Briquet** per two feet of water depth in areas deeper than two feet.

ALTOSID® BRIQUET APPLICATION CHART

Number of Briquets	Catch Basin Size	Water Depth (Feet)
1	0-1,500	0-2
2	1,500-3,000	2-4
3	3,000-4,500	4-6
4	4,500-6,000	6-8

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Storage:** Store in cool, dry place. **Pesticide Disposal:** Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag and box in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

To the fullest extent permitted by law, Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and handling of this material when such use and handling are contrary to label instructions.

Always read the label before using this product.

For more information call 1-800-248-7763.

www.altosid.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



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March, 2010
Schaumburg, IL

Date Issued: November, 2004
Supersedes: November, 2003

MATERIAL SAFETY DATA SHEET
ZOECON ALTOSID® BRIQUETS

Manufacturer: Wellmark International
Address: 1501 E. Woodfield Rd., Suite 200 West, Schaumburg, IL 60173
Emergency Phone: 1-800-248-7763
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Zoecon Altosid® Briquets
Chemical Name/Synonym: S)-Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate
Chemical Family: Terpenoid
Formula: C₁₉H₃₄O₃
EPA Registration No.: 2724-375-
RF Number: 433A

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component (chemical, common name)</u>	<u>CAS Number</u>	<u>Weight</u>	<u>Tolerance</u>
(S)-Methoprene: Isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate	65733-16-6	8.62%	Not established
Inert ingredients (non-hazardous and/or trade secret):		91.38%	

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT
Caution: Keep out of the reach of children..

SIGNS AND SYMPTOMS OF OVEREXPOSURE

No adverse reactions have resulted from normal human exposure during research and testing. Adverse animal reactions to this product have not been shown.

PRIMARY ROUTE OF ENTRY Dermal/Eye: Yes Oral: Yes Inhalation: Yes

ACUTE TOXICITY

Oral: LD₅₀ (rat): > 34,600 mg/kg bw (highest dose level tested) (Based on S-Methoprene)

Dermal: LD₅₀ (rabbit) >5,000 mg/kg bw (Based on S-Methoprene)

Inhalation: LC₅₀ (rat): >5.19 mg/L air (Based on S-Methoprene)

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Non-irritating (rabbit) (Based on S-Methoprene)

Eye Irritation: Practically non-irritating (rabbit) (Based on S-Methoprene)

Sensitizer: Not a sensitizer(guinea pig) (Based on S-Methoprene)

4. FIRST AID MEASURES

Eye: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.

Skin: Wash material off with soap and water. Remove contaminated clothing and footwear. See a physician if symptoms persist.

Ingestion: Drink 1-2 glasses of water and try to induce vomiting. Seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation: Remove victim to fresh air. See a physician if cough or other respiratory symptoms develop

Note to Physician: Treat symptomatically

5. FIRE FIGHTING MEASURES

NFPA Rating: **Health:** 0 **Fire:** 0 **Reactivity:** 0

Flammability Class: N/A

Flash Point: Does not flash

Explosive Limits (% of Volume): N/A

Extinguishing Media: Water, foam, dry chemical

Special Protective Equipment: Firefighters should wear protective clothing, eye protection, and self contained breathing apparatus.

Fire Fighting Procedures: Normal procedures. Do not allow run-off to enter waterways inhabited by aquatic organisms

Combustion Products: Carbon dioxide, carbon monoxide

Unusual Fire/Explosion Hazards: None

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken: Sweep up material and place in a container for disposal. Do not allow spill to enter waterways inhabited by aquatic organisms

Absorbents: None necessary due to product form

Incompatibles: None

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling.

Storage: Store in a cool, dry place. Do not contaminate food or feed by storage or disposal. Keep away from children.

8. EXPOSURE CONTROL / PERSONAL MEASURES

Exposure Limits: Not applicable

Ventilation: Use with adequate ventilation.

Personal Protective Equipment: Under ordinary use conditions, no special protection is required. If prolonged exposure is expected, it is recommended to wear a MSHA/NIOSH approved organic vapor/pesticide respirator, impervious gloves, chemical goggles or safety glasses with side shields.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Grey to black solid with slight hydrocarbon odor.
Boiling Point:	N/A
Melting Point:	N/A
Vapor Pressure (mm Hg):	N/A
Vapor Density (Air = 1):	N/A
Specific Gravity:	1.4 g/cc
Bulk Density:	N/A
Solubility:	1 ppm
Evaporation Rate:	N/A
pH:	N/A

10. STABILITY AND REACTIVITY

Stability:	Stable
Reactivity:	Non-reactive
Incompatibility w/ Other Materials:	None
Decomposition Products:	None
Hazardous Polymerization:	Will not occur

11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY [Based on (RS)-Methoprene Technical]

Methoprene is not considered as a carcinogen. The NOEL for non-carcinogen effects in an 18-month mouse study was 250ppm.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Based on (RS)-Methoprene Technical]

Methoprene is not a teratogen. The NOEL for maternal and embryo toxicity in rabbits was 200 mg/kg/day. The NOEL for reproductive effects in rats was 500 ppm.

MUTAGENICITY [Based on (RS)-Methoprene Technical]

Methoprene is not a mutagen.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE [Based on (RS)-Methoprene Technical]

Hydrolysis:	T1/2 > 4 weeks
Photolysis:	T1/2 < 10 hours
Soil half life:	~ 10 days
Water solubility:	< 2 ppm

ECOTOXICITY [Based on (S)-Methoprene Technical]

Acute Toxicity: fish:LC50 (trout): 760 ppb, (bluegill): > 370 ppb ((S)-Methoprene); **aquatic invertebrates:**LC50 (Daphnia): 360 ppb ((S)-Methoprene.)

13. DISPOSAL CONSIDERATIONS

Wastes resulting from the use of this product may be disposed of on site or at an approved waste management facility. Triple rinse (or equivalent). Do not contaminate water when disposing of rinsate or equipment wash waters. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

DOT49CFR Description: Not regulated as hazardous by D.O.T.

Freight Classification: Insecticides, NOI other than poison in boxes or drums. NMFC 102120

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated

RCRA: Not regulated as hazardous

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritation)

Delayed Health: No

Fire: No

Sudden Pressure: No

Reactivity: No

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.



ANVIL® 10+10 ULV

Contains an Oil Soluble Synergized Synthetic Pyrethroid for Control of Adult Mosquitoes (Including Organophosphate-Resistant Species), Midges and Black Flies in Outdoor Residential and Recreational Areas.

ACTIVE INGREDIENTS

3-Phenoxybenzyl-(1RS, 3RS, 1RS, 3SR)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate.....	10.00%
Piperonyl Butoxide*	10.00%
OTHER INGREDIENTS**	80.00%
	100.00%

Contains 0.74 lbs of Technical Sumithrin®/Gallon and 0.74 lbs of Piperonyl Butoxide/Gallon

*(butyl carbityl) (6-propylpiperonyl) ether and related compounds

** Contains a petroleum distillate

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

IF SWALLOWED:

Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Note to Physician:

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through the skin. Avoid contact with skin, eyes and clothing. In case of contact, flush with plenty of water. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks, chemical resistant gloves made of barrier laminate nitrile rubber, neoprene rubber or viton. See engineering controls for additional requirements.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial applica-

tions is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

For use by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel only.

IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services.

Do not treat a site with more than 0.0036 lbs of Sumithrin or 0.0036 lbs of PBO per acre in a 24-hour period. Do not exceed 0.1 lb of Sumithrin or PBO per acre in any site in any year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

NOTE: When rotating products with other insecticides containing PBO, do not exceed 2 lbs PBO per acre per year.

Not for use in outdoor residential misting systems.

USE INFORMATION

ANVIL 10+10 ULV is approved for application as a thermal aerosol and an Ultra Low Volume (ULV) nonthermal aerosol (cold fog) in mosquito adulticiding programs involving outdoor residential and recreational areas where adult mosquitoes are present in annoying numbers in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses. ANVIL 10+10 ULV may be applied over agricultural areas for the control of adult mosquitoes within or adjacent to the treatment areas.

For best results, apply when mosquitoes are most active and weather conditions are conducive to keeping the fog close to the ground. Application in calm air conditions is to be avoided. Apply only when wind speed is greater than or equal to 1 mph. All types of applications should be conducted at temperatures above 50 °F.

NOTE: ANVIL 10+10 ULV can not be diluted in water. Dilute this product with light mineral oil if dilution is preferred.

SPRAY DROPLET SIZE DETERMINATION

Ground-based, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter is less than 30 microns ($D_v 0.5 < 30 \mu m$) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_v 0.9 < 50 \mu m$). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Equipment, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns ($D_v 0.5 < 60 \mu m$) and that 90% of the spray is contained in droplets smaller than 80 microns ($D_v 0.9 < 80 \mu m$). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

GROUND ULV APPLICATION

Apply ANVIL 10+10 ULV through a standard ULV cold aerosol or non-thermal aerosol (cold fog) generator. Consult the following table for examples of various dosage rates using a swath width of 300 feet for acreage calculations. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when pest populations are high.

Dosage Rate (Lbs. Sumithrin/Acre)	ANVIL 10+10 Fl.oz/ Acre	Flow Rates in Fl.oz./Minute at truck speeds of:			
		5 MPH	10 MPH	15 MPH	20 MPH
0.0036	0.62	1.9	3.8	5.7	7.6
0.0024	0.42	1.3	2.5	3.8	5.1
0.0012	0.21	0.6	1.3	1.9	2.5

ANVIL 10+10 ULV may also be applied with non-thermal, portable, motorized backpack equipment adjusted to deliver ULV particles of less than 100 microns VMD. Use 0.21 to 0.62 fl.oz. of the undiluted spray per acre (equal to 0.0012 to 0.0036 lb ai/acre) as a 50 ft (15.2 m) swath while walking at a speed of 2 mph (3.2 kph). Dilute with a suitable mineral oil if dilution is preferred. Do not exceed 0.62 fl.oz. of the undiluted spray per acre. Do NOT use portable backpack equipment for application in enclosed spaces.

ANVIL 10+10 ULV may be applied through truck mounted thermal fogging equipment. Do not exceed the maximum rates listed above. May be applied at speeds of 5 to 20 mph. To reduce oil requirement and sludge buildup in equipment, use a 60-100-second viscosity mineral "fog" oil, or other fuel-type oil. Use a clean, well-maintained and properly calibrated fogger. Do not wet foliage since oil base formulations may be phytotoxic. For use with hand carried foggers, use same rates of active ingredient per acre and a swath width of 50 ft with a walking speed of 2 mph. Fog downwind, with the wind at your back. Do NOT use hand-carried foggers for application in enclosed spaces.

AERIAL APPLICATION

ANVIL 10+10 ULV may be applied at rates of 0.21 to 0.62 fluid ounces ANVIL 10+10 ULV per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. ANVIL 10+10 ULV may also be diluted with a suitable solvent such as mineral oil and applied by aerial ULV equipment so long as 0.62 fluid ounces per acre of ANVIL 10+10 ULV is not exceeded. Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy unless specifically approved by the state or tribe based on public health needs.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place. Keep container closed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

[For 2.5-gallon Jugs]: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with mineral oil and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

[For refillable drums & totes]: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

FOR MORE INFORMATION CALL 1-800-323-5727

NOTICE: To the extent provided by law, seller makes no warranty, expressed or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

ANVIL™ is a trademark of Clarke Mosquito Control Products, Inc.

Sumithrin™ is a trademark of Sumitomo Company Ltd.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172

AVAILABLE PACKAGING: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL, TOTE

LOT NO.: Marked on Container Label

EPA REG. NO. 1021-1688-8329

EPA EST. NO. 8329-IL-001

AL0261

Material Safety Data Sheet

Date last revised: 4 February 4, 2009

I. General Information

Active Ingredient(s) d-Phenothrin (SUMITHRIN®); Piperonyl Butoxide	Trade Name & Synonyms ANVIL® 10+10 ULV
Product Description A mosquito control insecticide for outdoor residential and recreational areas	EPA Registration Number 1021-1688-8329
Proper Shipping Name (DOT, ICAO/IATA) (non-bulk shipments) Insecticides, Insect or Animal Repellent, Liquid, N.O.S.	Primary Hazard Classification/Division (DOT, ICAO/IATA) Non-Hazardous (non-bulk shipments)
Manufacturer Clarke Mosquito Control Products, Inc.	Manufacturer's Phone Number (630) 894-2000
Manufacturer's Address 159 North Garden Avenue Roselle, Illinois 60172	INFOTRAC (Transportation/Spill Emergency) 1-800-553-5053 Medical Emergency or Incident 1-888-740-8712

II. Composition / Ingredients

Chemical Name	CAS #	Exposure Limits	Wt. %
d-Phenothrin (SUMITHRIN®)	026002-80-2	None	10
Piperonyl Butoxide	000051-03-6	None	10
Petroleum Distillates		200 mg/m ³ [1]	<5
Mineral Oil		5 mg/m ³ [2]	50-75

[1] ACGIH TLV, TWA, skin exposure

[2] OSHA PEL/ACGIH TLV, TWA, oil mist

COMMENTS: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

III. Hazards Identification

Physical State: liquid **Color:** colorless **Odor:** mineral oil

CAUTION! Harmful if absorbed through the skin. Contains petroleum distillate – Vomiting may cause aspiration pneumonia. Avoid contact with skin, eyes, and clothing.

Signs and Symptoms of Acute Exposure

Eye contact May cause temporary eye irritation, tearing, and blurred vision. Irritation clearing within 48 hours.

Skin contact Can cause mild skin irritation (irritation index 0.04). No irritation noted at 72 hours. Can cause a burning or prickling sensation on more sensitive areas (face, eyes, mouth). Harmful if absorbed through the skin. Not a dermal sensitizer.

Ingestion May be harmful if swallowed. Product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe lung injury.

Inhalation No significant adverse health effects are expected to occur upon short-term exposure.

Chronic effects No significant signs or symptoms indicative of any adverse health effects are expected to occur.

Conditions aggravated by exposure None known

Target organs None

Toxicological Information: Acute Dermal LD50: > 2.0 gm/kg (Albino rabbit)

Oral LD50: > 5.0 gm/kg (Albino rat)

Inhalation LC50: 3.76 mg/L (4 hr, rat)

Carcinogenic potential None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as being carcinogens.

Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to piperonyl butoxide (PBO). The significance of these observations is questionable and under review. The doses at which tumors were observed for PBO greatly exceeded potential human exposure from labeled uses. Doses at which these effects were observed greatly exceed anticipated human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that this product will result in carcinogenic effects.

Material Safety Data Sheet

Date last revised: 4 February, 2009

ANVIL 10+10 ULV

Page 2 of 3

IV. First Aid Measures

EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION: If swallowed, immediately call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.

INHALATION: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN: Contains Pyrethroids and Petroleum Distillates; vomiting may pose an aspiration pneumonia hazard. For skin effects, a highly efficient therapeutic agent for pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

V. Fire Fighting Measures

Flammability Classification: This product is NOT classified as flammable or combustible by OSHA.

Flash Point (Test Method): >200 °F, >93.3 °C (TAG Closed Cup)

Hazardous combustion products: Carbon dioxide, carbon monoxide, smoke, fumes, and unburned hydrocarbons

Hazardous Combustion Products: Under fire conditions this product may support combustion and may decompose to give off toxic gases such as carbon monoxide, carbon dioxide, and nitrogen oxides.

Extinguishing Media: Foam, carbon dioxide or dry chemical.

Fire Fighting Procedures: Treat as an oil fire. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream.

Sensitive to Static Discharge: Yes, use proper bonding and/or grounding procedures.

VI. Physical and Chemical Properties

Appearance: Clear, colorless liquid

Odor: odor of mineral oil

Specific Gravity (H₂O = 1): 0.887 at 20 °C

Vapor Density (Air = 1): heavier than air

Melting/Freezing point: Not determined

(VOC): <1.000%

Solubility in Water: Immiscible in water

pH: Not applicable

Viscosity #1: 25 CPS at 24 °C (Brookfield)

Density: 7.4 Lbs/Gal

VII. Stability and Reactivity

Stable Yes

Hazardous Polymerization No

Conditions to Avoid Not compatible with strong acids or bases. Not compatible with strong oxidizers.

VIII. Accidental Release Measures

Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors.

Small Spill Absorb with appropriate absorbent such as sand or vermiculate. Clean spill area of residues and absorbent.

Large Spill Collect product into drums, storage tanks, etc., via drains, pumps, etc. Absorb with appropriate absorbent such as sand or vermiculate. Clean spill area of residues and absorbent.

Environmental Precautions: Water Spill: Contains pyrethroids which are toxic to fish and other aquatic invertebrates. Contaminated absorbent and wash water should be disposed of according to local, state/provincial and federal/national regulations.

IX. Handling and Storage

General Procedures: Do not use or store near heat, sparks, open flame, or any other ignition sources.

Handling: Take prudent precautions to avoid contact with skin, eyes, and clothing. Mechanical ventilation should be used when handling this product in enclosed spaces. Do not contaminate water, food or feedstuffs, by storage, handling, or by

Material Safety Data Sheet

Date last revised: 4 February, 2009

ANVIL 10+10 ULV

Page 3 of 3

disposal. Read and observe all precautions and instructions on the label.

Storage: Store in a cool, dry place. Keep container closed. KEEP OUT OF REACH OF CHILDREN.

Electrostatic Accumulation Hazard: This product contains petroleum distillates for which there is potential for the accumulation of static electricity. Consideration should be given to bonding and grounding of equipment during loading, unloading, and transfer of this product.

Disposal Method: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Empty Container: Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of container in a sanitary landfill, or by other procedures approved by State and Local authorities.

RCRA/EPA Waste Information: None of the ingredients in this product appear on RCRA lists (40 CFR 261.24, 40 CFR 261.33) or CERCLA Hazardous Substance list (40 CFR Part 302 Table 302.4).

X. Exposure Controls / Personal Protection

Engineering Controls: Mechanical ventilation should be used when handling this product in enclosed spaces. Local exhaust ventilation may be necessary.

Personal Protective Equipment: Personal protective equipment should be selected based upon the conditions under which this material is used.

Eyes and Face: Take prudent precautions to avoid contact with eyes.

Skin: Take prudent precautions to avoid contact with skin and clothing.

Work Hygienic Practices: DO NOT SMOKE, EAT, OR DRINK, OR APPLY COSMETICS IN WORK AREA! Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking, or using the toilet.

XI. Other Regulatory Information

TSCA Inventory All chemical substances in this product comply with the TSCA inventory reporting requirements.

SARA Title III

Section 311/312 Hazard Categories:

FIRE: No PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes

Section 302/304 Extremely Hazardous Substances: None

Section 313 – Reportable Ingredients:

Sumithrin (d-Phenothrin), 026002-80-2, 10.00 wt%
Piperonyl butoxide, 000051-03-6, 10.00 wt%

DOT (Department of Transportation): This material is not regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (i.e., less than 119 Gal / 450 Liter).

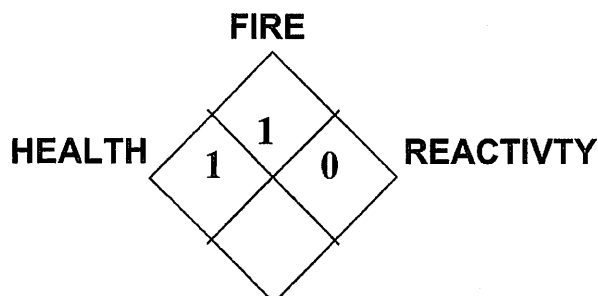
DOT Shipping Name (bulk quantity) and IMO/IMDG (Vessel) shipping classification:

Environmentally Hazardous Substance, Liquid, N.O.S. Marine Pollutant (d-Phenothrin) 9 UN 3082 III

US States Regulatory Reporting

CA Prop 65: This product is not known to contain any substances known to the State of California to cause cancer, birth defects, or other reproductive harm.

Volatile Organic Compounds (VOC): This product contains less than 1% VOC.



NFPA Code Key

4 = Severe

3 = Serious

2 = Moderate

1 = Slight

0 = Minimal

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

VectoBac[®] 12AS

BIOLOGICAL LARVICIDE

AQUEOUS SUSPENSION

Active Ingredient:

<i>Bacillus thuringiensis</i> , subsp. <i>israelensis</i> , strain AM 65-52, fermentation solids and solubles	11.61%
Other Ingredients	88.39%
Total	100.00%

Potency: 1200 International Toxic Units (ITU) per mg
(Equivalent to 4.84 billion ITU per gallon, 1.279 billion ITU per liter)

There is no direct relationship between intended activity (potency) and the Percent Active Ingredient by Weight.

EPA Reg. No. 73049-38

EPA Est. No. 33762-IA-001

List No. 05605

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans (and Domestic Animals)
 - 2.2 Physical and Chemical Hazards
- 3.0 Directions for Use
 - 3.1 Chemigation
- 4.0 Storage and Disposal
- 5.0 Application Directions
- 6.0 Nuisance Flies
- 7.0 Nuisance Aquatic Midges
- 8.0 Ground and Aerial Application
- 9.0 Small Quantity Dilution Rates
- 10.0 Chemigation
 - 10.1 Rice-Flood (Basin) Chemigation
- 11.0 Notice to User

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0	FIRST AID	
	If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
	If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
	HOT LINE NUMBER	
	Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS) CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash contaminated clothing before reuse. Mixer/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Physical and Chemical Hazards

Diluted or undiluted VectoBac 12AS can cause corrosion if left in prolonged contact with aluminum spray system components. Rinse spray system with plenty of clean water after use. Care should be taken to prevent contact with aluminum aircraft surfaces, structural components and control systems. In case of contact, rinse thoroughly with plenty of water. Inspect aluminum aircraft components regularly for signs of corrosion.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply directly to finished drinking water reservoirs or drinking water receptacles when water is intended for human consumption.

Do not apply when weather conditions favor drift from treated areas. Do not apply to metallic painted objects, such as automobiles, as spotting may occur. If spray is deposited on metallic painted surfaces, wash immediately with soap and water to avoid spotting.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

3.1 Chemigation

Do not apply this product through any type of irrigation system unless labeling on chemigation is followed.

4.0 STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **STORAGE:** Store in a cool, [less than 86° F (30° C)], dry place.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not reuse container.

CONTINUED

5.0 APPLICATION DIRECTIONS

Do not apply when wind speed favors drift beyond the area of treatment.

Mosquito Habitat	Suggested Rate Range*
<i>(Such as the following examples):</i>	
Irrigation ditches, roadside ditches, flood water, standing ponds, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields.	0.25 - 2 pts/acres

In addition, standing water containing mosquito larvae, in fields growing crops such as: Alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches and walnuts, may be treated at the recommended rates.

When applying this product to standing water containing mosquito larvae in fields growing crops, do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Polluted water (such as sewage lagoons, animal waste lagoons).	1 - 2 pts/acre
--	----------------

*Use higher rate range in polluted water and when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted, and/or algae are abundant.

Blackflies Habitat	Suggested Rate Range
Streams	
Stream water† (= ppm) for 1 minute exposure time	0.5 - 25 mg/liter
Stream water† (= ppm) for 10 minutes exposure time	0.05 - 2.5 mg/liter

†Use higher rate range when stream contains high concentration of organic materials, algae, or dense aquatic vegetation.

†Discharge is a principal factor determining carry of Bti. Use higher rate or increase volume by water dilution in low discharge rivers or streams under low volume (drought) conditions.

6.0 NUISANCE FLIES

For control of nuisance flies (*Psychoda* spp., *Chironomus* spp.) in sewage treatment facilities utilizing trickling filter systems.

APPLICATION DIRECTIONS

Nuisance Fly Habitat	Suggested Rate Range*
Trickling filter system of wastewater treatment plants	10 - 20 mg/liter a.(0.833-1.67 ml) per liter of wastewater feed to the filter per 30 minutes

* Use high rate for control of *Chironomus* spp. Apply undiluted with pre-calibrated pump or other device into the wastewater feeding into the filters for a period of 30 minutes. Repeat applications as needed after 2-4 weeks. Control of *Chironomus* spp. may take up to 2 weeks.

7.0 NUISANCE AQUATIC MIDGES

For control of *Chironomine* midges (*Chironominae: Chironomini*) inhabiting shallow, manmade and natural lakes or ponds.

APPLICATION DIRECTIONS

Nuisance Midge Habitat	Suggested Rate Range*
Shallow Lakes and Ponds per sewage oxidation ponds (less than acre 6 feet deep)	1 gallon (3,785.5 ml) per acre

* Apply diluted with water in total volume of 5 gallons/acre by pouring or spraying over the surface to be treated with pre-calibrated device. Repeat application as needed after 2-4 weeks. Control of *Chironomine* midges may take up to 2 weeks.

8.0 GROUND AND AERIAL APPLICATION

VectoBac 12AS may be applied in conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. Do not mix more VectoBac 12AS than can be used in a 72-hour period.

For most ground spraying, apply in 5-100 gallons of water per acre using hand-pump, airblast, mist blower, etc., spray equipment.

For aerial application, VectoBac 12AS may be applied either undiluted or diluted with water. For undiluted applications, apply 0.25 to 2.0 pt/acre of VectoBac 12AS through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers.

For diluted application, fill the mix tank or plane hopper with the desired quantity of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding the VectoBac 12AS. VectoBac 12AS suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.

Rinse and flush spray equipment thoroughly following each use.

For blackfly aerial applications, VectoBac 12AS can be applied undiluted via fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or open pipes. Rate of application will be determined by the stream discharge and the required amount of VectoBac 12AS necessary to maintain a 0.5 - 25 ppm concentration in the stream water. VectoBac 12AS can also be applied diluted with similar spray equipment. Do not mix more VectoBac 12AS than can be used in a 72-hour period.

9.0 SMALL QUANTITY DILUTION RATES

Gallons Spray Solution/Acre (Ounces Needed per Gallon of Spray)

VectoBac 12AS

Rate in Pints

Per Acre	10 Gal/A	25 Gal/A	50 Gal/A
0.25 (4 oz)	0.4	0.16	0.08
0.5 (8 oz)	0.8	0.32	0.16
1.0 (16 oz)	1.6	0.64	0.32
2.0 (32 oz)	3.2	1.28	0.64

CONTINUED

10.0 CHEMIGATION

Apply this product through flood (basin) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have any questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

A person knowledgeable of this chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

10.1 RICE-FLOOD (BASIN) CHEMIGATION

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

VectoBac 12AS is metered or dripped into rice floodwater at application stations positioned at the point of introduction (levee cut) of water into each rice field or pan. Two to three pints of VectoBac 12AS are diluted in water to a final volume of 5 gallons. The diluted solution is contained in a 5 gallon container and metered or dispersed into the irrigation water using a constant flow device at the rate of 80 ml per minute. Introduction of the solution should begin when 1/3 to 1/2 of the pan or field is covered with floodwater. Delivery of the solution should continue for a period of approximately 4-1/2 hours. Floodwater depth should not exceed 10-12 inches to prevent excessive dilution of VectoBac 12AS which could result in reduced larval kill.

Agitation is not required during the period in which the VectoBac 12AS solution is being dispersed.

Application of VectoBac 12AS into rice floodwater is not permitted using a pressurized water and pesticide injection system.

11.0 NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoBac is a registered trademark of Valent BioSciences Corporation.



VectoBac® 12AS**MSDS# BIO-0031 Rev. 4**

ISSUED 03/08/10

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: VectoBac® 12AS
 VectoBac® 12AS II
EPA REG. NO.: 73049-38
List Number: 5605

MANUFACTURER: Valent BioSciences Corporation
 870 Technology Way, Suite 100
 Libertyville, Illinois 60048

EMERGENCY TELEPHONE NUMBERS

Emergency Health or Spill:

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME: Bacillus thuringiensis, subsp. israelensis, strain
AM 65-52, fermentation solids and solubles

CONCENTRATION: 11.61 %

CAS/RTECS NUMBERS: 68038-71-1 / N/A

OSHA-PEL 8HR TWA: N/L

STEL: N/L

CEILING: N/L

ACGIH-TLV 8HR TWA: N/L

STEL: N/L

CEILING: N/L

OTHER 8HR TWA: N/A

LIMITS STEL: N/A

CEILING: N/A

INGREDIENT NAME: Inert Ingredients - identity withheld as a Trade
Secret

CONCENTRATION: 88.39 %

CAS/RTECS NUMBERS: N/A / N/A

OSHA-PEL 8HR TWA: N/L

STEL: N/L

CEILING: N/L

ACGIH-TLV 8HR TWA: N/L

STEL: N/L

CEILING: N/L

OTHER 8HR TWA: N/A

LIMITS STEL: N/A

CEILING: N/A

VectoBac® 12AS

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ISSUED 03/08/10

2. COMPOSITION/INFORMATION ON INGREDIENTS, continued

EEC (European Community): N/A

Symbol Designation: N/A

Risk Phrases: N/A

Safety Phrases: N/A

3. HAZARDS INFORMATION

EMERGENCY OVERVIEW: Product is non-toxic by ingestion, skin contact, or inhalation. May be irritating to skin and eyes, and may be a skin sensitizer.

ROUTE(S) OF ENTRY: Skin: No
 Inhalation: No
 Ingestion: No

SKIN CONTACT: Mild irritant

SKIN SENSITIZATION: Possible mild sensitizer

EYE CONTACT: Mild irritant

TARGET ORGANS: N/D

CARCINOGENICITY RATING: NTP: N/L IARC: N/L OSHA: N/L ACGIH: N/L
None

SIGNS AND SYMPTOMS: Direct contact with eyes or skin may cause mild irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D

VectoBac® 12AS

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4. FIRST AID MEASURES

EYES: Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

SKIN: Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INGESTION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

5. FIRE FIGHTING PROCEDURES

FLASH POINT: N/D

FLASH POINT METHOD: N/D

LOWER EXPLOSIVE LIMIT(%): N/D

UPPER EXPLOSIVE LIMIT(%): N/D

AUTOIGNITION TEMPERATURE: N/D

FIRE & EXPLOSION HAZARDS: Non-flammable and no explosive properties.

EXTINGUISHING MEDIA: Use appropriate media for underlying cause of fire.

FIRE FIGHTING INSTRUCTIONS: Wear protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR RELEASE PROCEDURES: Recover product and place in appropriate container for disposal. Ventilate and wash area.

VectoBac® 12AS

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ISSUED 03/08/10

7. HANDLING AND STORAGE

HANDLING: N/D.

STORAGE: Store in a cool, dry place. For further information refer to local country registration and label.

SPECIAL PRECAUTIONS: Wash thoroughly with soap and water after handling. Keep impervious gloves on until all potentially contaminated personal protective equipment is removed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust.

RESPIRATORY PROTECTION: Not usually required. If necessary (Mixers/loaders and applicators not in enclosed cabs or aircraft), use a MSHA/NIOSH approved (or equivalent) respirator with a dust/mist filter (N-95, R-95, or P95).

SKIN PROTECTION: Impervious, waterproof gloves and clothing to minimize skin contact.

EYE PROTECTION: Not usually required. If necessary, use safety glasses or goggles.

OTHER PROTECTION: Wash thoroughly with soap and water after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Light brown suspension.

ODOR: N/D

BOILING POINT: N/D

MELTING/FREEZING POINT: N/D

VAPOR PRESSURE (mm Hg): N/D

VAPOR DENSITY (Air=1): N/D

EVAPORATION RATE: N/D

BULK DENSITY: 1.06-1.1 g/mL

SPECIFIC GRAVITY: N/D

SOLUBILITY: Disperses well in water

pH: 4.6-5.0

VISCOSITY: 250-1000 cps at 25 C

VectoBac® 12AS**MSDS# BIO-0031 Rev. 4**

ISSUED 03/08/10

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

INCOMPATIBILITIES: Diluted or undiluted product can cause corrosion if left in prolonged contact with aluminum surfaces (e.g. spray equipment, aircraft components).

HAZARDOUS DECOMPOSITION PRODUCTS: N/D.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

ORAL LD50: > 5,000 mg/kg (rat)

DERMAL LD50: > 5,000 mg/kg (rabbit)

INHALATION LC50: > 5.34 mg/l (rat) No lethality was observed in rats after a 4 hour whole body exposure to this concentration of the product as an undiluted aerosol.

CORROSIVENESS: N/D. Not expected to have any corrosive properties.

DERMAL IRRITATION: Transient, mild to moderate redness was observed at the site of application in a skin irritation test in rabbits.

OCULAR IRRITATION: Transient, redness and conjunctival irritation observed in test animals in a study with this product. No positive ocular effects were observed.

DERMAL SENSITIZATION: Eight of ten animals positive in a dermal sensitization study in guinea pigs. Considered to be a mild sensitizer.

SPECIAL TARGET ORGAN EFFECTS: N/D.

CARCINOGENICITY INFORMATION: N/D. None of the components are classified as carcinogens.

VectoBac® 12AS**MSDS# BIO-0031 Rev.4**

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12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Technical product
Non-pathogenic to birds, fish, honeybees, or earthworms.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Dispose of product in accordance with federal,
state, and local regulations.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
HAZARD CLASS: N/A
UN NUMBER: N/A
PACKING GROUP: N/A
REPORTABLE QUANTITY: N/A

IATA/ICAO STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
HAZARD CLASS: N/A
UN NUMBER: N/A
PACKING GROUP: N/A
REPORTABLE QUANTITY: N/A

IMO STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
HAZARD CLASS: N/A
UN NUMBER: N/A
PACKING GROUP: N/A
REPORTABLE QUANTITY: N/A
FLASH POINT: N/D

15. REGULATORY INFORMATION

TSCA STATUS: Exempt RCRA STATUS: N/D
CERCLA STATUS: N/D PROP 65 (CA): N/D
SARA STATUS: N/D

VectoBac® 12AS

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ISSUED 03/08/10

16. OTHER INFORMATION

REASON FOR ISSUE: Updated storage as per local regulation.
APPROVAL DATE: 03/08/10
SUPERSEDES DATE: 08/13/09
MSDS NUMBER: BIO-0031 Rev. 3

LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed

C = Ceiling

S = Short-term

® = Registered Trademark of Valent BioSciences

(TM) = Registered Trademark of Valent BioSciences

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Libertyville, IL 60048 - 800-323-9597
Corporation

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MEMORANDUM

TO: Chairman LaPlaca and EPS Committee
FROM: Dan Deeter
DATE: January 13, 2014
RE: Engineering Monthly Report

The Engineering Division has continued to work with the Building Division in order to complete site inspections, as well as responding to drainage complaint calls. In total, three Engineering employees performed 74 site inspections for the month of December. In January staff will submit to the IEPA the annual Capacity, Management, Operation & Maintenance Plan (CMOM) Report and the annual Fiscal Report for NPDES Permittees Report. The following capital improvement projects and engineering studies are underway.

Oak Street Bridge Replacement Engineering Phase II/Design Engineering (See attached memo.)

Woodlands Green Infrastructure Improvements, Phase 1

- Final Completion (plantings, surface course) June 2013
- The contractor will provide two years of rain garden maintenance to establish native plantings

2013 Resurfacing (N. CLR) and 2013 Reconstruction (W. Fourth Street)

- Construction May – Nov. 2013
- 2013 Resurfacing (N. County Line Road and other streets)
 - Gerardi has completed the project and the final punch list and has submitted their final invoice and 10% maintenance bond.
 - The Project Savings is: \$259,350
- 2013 Reconstruction (W. Fourth and other streets)
 - Chicagoland Paving has completed construction on 11/15/13.
 - Total construction change orders to date for 2013 Reconstruction: \$27,421 addition. Remaining Project Budget/Contingency: \$1,595,719.

2014 Resurfacing (S. Adams), 2014 Reconstruction (Walnut St.), & Woodlands Phase 2

- ✓ Design Engineering Proposal presented to EPS/BOT February 2013
- Design Engineering & Permitting Mar 2013 – Jan 2014
 - Staff has reviewed & commented on the 60% and 90% plan sets
- Construction bidding February 2014
- Construction Contract Awarded March 2014
- Construction Starts April 2014
- 2014 Resurfacing Streets

- S. Adams Fourth to Eighth
- S. Bodin Ninth to 55th
- S. Monroe Ninth to 55th, Seventh to Eighth
- W. Seventh Monroe to Madison
- W. Sixth Bodin to Monroe
- E. Maple Garfield to Park
- S. Garfield 55th to 57th (2013-14 WM improvements)
- Fuller Justina to Mills (2013-14 WM improvements)
- 2014 Reconstruction Streets
 - W. Walnut Madison to Washington
 - E. Walnut Garfield to Oak
 - N. Clay Walnut to Maple
 - N. Garfield vicinity of Walnut St.
 - N. Madison Walnut to Hickory
 - Walker York to The Lane
 - Maple Lincoln to Washington
- Woodlands Phase 2
 - Woodland Avenue County Line Road to Taft
 - Cleveland Woodland to 55th
 - Taft Woodland to 55th
 - Harding Woodland to Taft

State and Federal Funding Opportunities

A summary of the Grant Funds awarded or applied for by the Village of Hinsdale is attached. An application for the 2014 Illinois Green Initiative Grants was submitted before the 12/15/13 deadline. The IEPA acknowledged receipt of our application. This year there was a total of 81 applications valued at approximately \$36 million for the IGIG grants (\$5 million available). Notification of awards will be made around 07/01/14.

Cc: President and Board of Trustees
Village Manager

MEMORANDUM

TO: Chairman LaPlaca and the Environment & Public Services Committee

FROM: Dan Deeter, Village Engineer

DATE: January 13, 2014

RE: Oak Street Bridge Phase 2 (Design Engineering) Update

In December 2013, staff and our consultants, HR Green, met with Mr. Jim Today of the Adventist Hinsdale Hospital to understand the hospital's concerns during and after construction. HR Green reviewed the current phasing / traffic control plan for maintaining public access to the hospital throughout the construction period. We have continued this dialogue throughout the month to address the hospital's concerns.

HR Green continues to develop the plans and specifications. They will provide a progress set of plans to the Village staff around January 10, 2013 in anticipation of the early February Community Working Group meeting.

Hitchcock Design Group is developing imagery of the proposed bridge and the surrounding area. These images will provide the hospital and public with an idea of the finish grade conditions, retaining walls, and proposed architectural features of the completed bridge.

cc: Kathleen Gargano, Village Manager

IDOT Project Kickoff Meeting	HRG/Staff	10-15-2013
<i>This is an initial coordination meeting at IDOT District 1's Bureau of Local Roads which is required for any project receiving federal funds.</i>		
Project Working meeting	HRG/Staff	11-22-2013
<i>Coordination meeting with Village staff to review transition issues from Phase 1 to Phase 2 and prepare for a meeting with Adventist Hinsdale Hospital (AHH).</i>		
AHH Coordination Meeting	HRG/ Staff/AHH	12-9-2013
<i>A meeting to review AHH concerns and update them on plans to address these issues including Oak Street access, traffic staging plans, and maintenance of utilities.</i>		
Draft 30% Submittal To Village	HRG/Staff	01-10-2014
<i>Progress drawings for Staff's review and information. This allows the Village to monitor and comment as the consultant provides more details to the plan's structural components (typically described as "Type, Size, & Location" information or TSLs) and civil components (typically described as "Plans, Specifications, & Estimates" information or (PSEs).</i>		
CWG Update Meeting	Staff/CWG/HRG	02-6-2014
<i>A meeting to update Community Working Group (CWG) members concerning the status of the design development. These meetings will highlight significant design changes (if any) and update the CWG members on plan development in areas of public interest such as traffic management and aesthetics.</i>		
Preliminary Plans to IDOT	HRG	02-14-2014
<i>Submittal will consist of roadway plans with all required Right of Way shown; revised Type, Size and Location drawings for the bridge and retaining wall; a technical memorandum covering any changes from the approved Project Development Report and a preliminary opinion of constructed cost. If Right of Way impacts are the same or less than what was estimated in Phase 1, development of the Right of Way Plats, appraisals and appraisal reviews will begin immediately.</i>		
Preliminary Plans and Costs to ICC	HRG	02-14-2014
<i>Preliminary information to the ICC. More detailed plans will accompany the formal petition.</i>		

Design Process

Right of Way Plats to IDOT	HRG	03-27-2014
<i>Plats must be submitted to and approved by IDOT before negotiations can be started.</i>		
60% submittal to Village Staff and BNSF	HRG	05-28-2014
<i>This is a progress submittal for the benefit of the Village staff, BNSF and ICC. IDOT does not require a 60% submittal.</i>		
BNSF Coordination Meeting	HRG/BNSF	June, 2014
<i>BNSF support will be required for ICC to process the petition. This meeting will be held to show the anticipated Right of Way impacts at the bridge and adjacent to Hillgrove Avenue. BNSF restrictions on construction will also be addressed. This item will require at least one meeting and multiple follow up submittals.</i>		

Land Acquisition

Negotiations with Property Owners HRG May-August 2014

Process follows IDOT guidelines using IDOT certified negotiator.

ICC Petition

ICC Petition for review HRG/Vill. EPS Comm. 7-1-2014

Completed Petition should be filed by end of June. Will include letter of support from BNSF and 60% plans. We'll have to meet with BNSF in June to go over the 60% plans. B. Vercruysse requested a draft before we file so will target June 15th for the draft.

ICC Petition to Hearing ICC 8-15-2014

Completed petition Administrative Law Judge to review in August. It does not appear the board has to sign this document but a cover letter from the Village will certainly be required.

ICC Approval ICC 11-15-2014

Need no later than early January in order for IDOT to authorize project for construction.

Update Meeting

CWG Update Meeting Vill. Staff/CWG/HRG 6-26-2014

A final update for the Community Working Group. Plans should be sufficiently developed and the Right of Way process far enough along that most details can be shared with the group.

Complete the Plans

Submit ROW to IDOT HRG/IDOT 10-15-2014

IDOT Bureau of Land Acq. must approve. Some documents may require Village Engineer's signature.

90% (Prefinal) plans to IDOT & Village HRG/IDOT 10-17-2014

Hard deadline for submittal.

Final Plans, Specifications and Estimate to IDOT by HRG 12-15-2014

Again, deadline must be met make letting. Plan cover sheet will have to be signed by Village Engineer.

Draft Joint and Const. Agreements to IDOT HRG/Vill. Staff 12-15-2014

Selection of a construction engineer should be started before this date. IDOT may allow the Village to use HR Green if Village wishes to do so (policy is ambiguous right now) but, if the consultant selection process is required, the process should start when Pre-Final Plans are available.

Construction Phase Agreements through the Village Board

Final CE, Joint and RR Agt. To IDOT EPS Comm/Vill. Board 1-16-2015

The above are intergovernmental agreements prepared by HRG or IDOT. The Board will have to approve them.

Preparation for Letting Project

ROW Certified by IDOT	IDOT	1-21-2015
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All IDOT.

Letting by IDOT	IDOT	3-6-2015
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Start relocation of Private Utilities	HRG/Vill. Staff	1-1-2015
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Coordination with private utilities will resume as the Pre-Finals are submitted to IDOT.

**Veeck Park Wet Weather Facility
Hinsdale, Illinois**

Date	Bar Screen Channel Down Stream (feet)	Overflow Height Above Weir (feet)	Storage Tank Elevation (feet)	Precipitation (inches of water or water equivalent)	Cumulative Monthly Rainfall
12/01/13	0.00		2.81		
12/02/13	0.00		2.00	0.05	
12/03/13	0.00		2.13		
12/04/13	0.01		2.72	0.01	
12/05/13	0.00		2.59		
12/06/13	0.00		2.72		
12/07/13	0.00		2.85		
12/08/13	0.00		1.78		
12/09/13	0.00		1.95		
12/10/13	0.00		2.01		
12/11/13	0.00		2.87		
12/12/13	0.00		3.15		
12/13/13	0.00		2.90		
12/14/13	0.00		2.93		
12/15/13	0.00		2.83		
12/16/13	0.00		2.97		
12/17/13	0.01		3.67		
12/18/13	0.00		3.70		
12/19/13	0.00		3.78	0.14	
12/20/13	0.00		2.86	0.27	
12/21/13	0.00		2.78	0.72	
12/22/13	0.09		2.61	0.78	
12/23/13	0.00		3.05		
12/24/13	0.00		3.20		
12/25/13	0.00		3.51		
12/26/13	0.00		3.60		
12/27/13	0.00		3.65		
12/28/13	0.00		2.82		
12/29/13	0.00		2.74		
12/30/13	0.00		2.83		
12/31/13	0.00		2.90		

Total Precipitation in December 1.97
Departure from Normal: -0.46

Notes:

1. Minimum tank elevation is 2.0 feet to avoid running the pumps dry and damaging them.
2. Rain data from Hinsdale Middle School weather station.

Village of Hinsdale
Grant Funds Awarded in 2009 - 2013

Source	Program	Purpose	Funds Available	Amount
Illinois Commerce Commission	Crossing Safety Improvement Program	Oak Street Bridge - 60% Funding	2015 Capital Budget	\$10,200,000
Senator Dillard	State Capital Bill	Oak Street Bridge	Effective January 1, 2011	\$825,000
West Suburban Mass Transit	Car Sale Proceeds	Oak Street Bridge Eng/Construction	50/50 Reimbursement	\$395,000
Illinois Dept of Transportation	Federal Highway Bridge Program	Oak Street Bridge Phase I	July 2010 - 80/20	\$680,000
DuPage Mayors & Managers	Federal Stimulus	S. Garfield Reconstruction	Paid Through IDOT	\$1,632,000
Senator Dillard & Rep Bellock	Emergency Repair Program	Street resurfacing	Upon Project Completion	\$300,000
Representative Bellock	State Capital Bill	N. Washington Reconstruction	Upon issuance of bonds	\$340,000
New Local Transportation Projects	State Capital Bill	Road Improvements	20% released October, 2010	\$389,540
Lyons Township	Bond Proceeds	KLM Park Pavilion	Upon Project Completion	\$150,000
DuPage Mayors & Managers	STP Program	Oak Street Bridge	2015 Capital Budget	\$3,830,000
IDNR	OSLAD	Improvements to KLM	Awarded	\$150,000
IEPA	ARRA/State Revolving Loan	Garfield Sewer Separation	Loan docs received 7/05/11	\$444,160
IEPA	ARRA/State Revolving Loan	Chestnut Sewer Separation	Loan docs received 8/16/11	\$3,728,196
DuPage Mayors & Managers	Surface Transportation Projects	Hinsdale Avenue Resurfacing		\$311,627
DuPage Mayors & Managers	Surface Transportation Projects	Chicago Avenue Resurfacing	Approved by DMMC	\$203,291
DuPage Mayors & Managers	Surface Transportation Projects	York/Garfield Resurfacing	11/16/11 for FY 2017	\$293,442
DuPage Mayors & Managers	Surface Transportation Projects	N. Madison Resurfacing		\$317,765
DuPage Mayors & Managers	Surface Transportation Projects	S. Madison Resurfacing	Approved by DMMC	\$274,000
West Suburban Mass Transit	Car Sale Proceeds	Highland Parking Lot	12/04/12 for FY 2018	\$100,000
Total			2/3 reimbursement	<u>\$24,564,021</u>

Village of Hinsdale
Grant Applications Under Consideration

Source	Program	Purpose	Status	Amount
IDOT	Federal Highway Bridge Grant	Oak Street Bridge Phases II & III	Committed to by IDOT	\$4,895,000
IEPA	Illinois Green Initiative Grant (IGIG)	Woodlands Green Infrastructure	S: 12/15/13. Award: 07/01/14	\$750,000
Total				<u>\$5,645,000</u>

\$ 31,174.45	\$ 3,753.06	\$ -	\$
	\$ 27,421.39	Addition	

Project Budget
ChicagoLand Paving Bid
Change Order Requests to date
Revised Contract Amount
Remaining Project Budget/Contingency

2,799,900.00	4,423,040.00
<u>\$ 27,421.39</u>	
	<u>2,827,321.39</u>
	1,595,718.61

Change Order Field Record

Change Request No.	Date	Pay Item	Description and Reason for Change	Status	Estimated Cost		Submitted Cost		Change Order No.	Board Approval Date
					Addition	Deduction	Addition	Deduction		
1	06/03/13		Conflict with NICOR 8" Gas Main changed the storm sewer pipe retrofit from "pipe bursting" to pipe lining.	Completed						
			Trench Backfill				\$ 480.00			
			Topsoil Furnish and Place, 6"				\$ 625.00			
			Sodding				\$ 500.00			
			Tree Portection Fencing				\$ 98.00			
			HMA Surface Course, Mix D, N50, Driveways, 3" (& 6" Agg. Base)				\$ 600.00			
			PCC Sidewalk, 5" (6" at driveways)				\$ 230.00			
			Driveway Pavement Removal				\$ 180.00			
			Combination Curb & Gutter Removal				\$ 204.00			
			Sidewalk Removal				\$ 50.00			
			Combination Concrete Curb & Gutter, Type B-6.12				\$ 816.00			
			Alternate 1, Pipe Bursting 10" Storm Sewer					\$ 45,360.00		
			Alternate 1, Storm Service Reinstatement					\$ 11,550.00		
			Initial Storm Sewer Heavy Cleaning & Televising				\$ 4,000.00			
			Point Repair #1 110-121				\$ 3,850.00			
			Point Repair #2 180-190				\$ 3,500.00			
			Point Repair #3 278-327				\$ 10,770.00			
			Point Repair #4 0-80				\$ 15,800.00			
			12" CIPP (Cast-in-Place-Pipe)				\$ 28,486.20			
			Lateral Reinstatement				\$ 4,125.00			
2	07/18/13		Adjustments to water main fittings and valves. TideFlex Valve increased from 15" to 21" to match storm sewer pipe size.	Completed						
			6" Non-Pressure Connection				\$ 2,650.00			
			48" Dia. Valve Vault with Fr & Lid, 2 each					\$ 3,700.00		
			6" Valve Box, 3 each				\$ 1,500.00			
			8" Insert Valve				\$ 6,400.00			
			6" Insert Valve, 2 each					\$ 11,000.00		
			Storm Sewer, 21"				\$ 690.00			
			Tideflex Checkmate Valve, 21"				\$ 7,500.00			
			Tideflex Checkmate Valve, 15"					\$ 4,000.00		
3	07/19/13	T&M Tunneling Under 48" Storm Sewer	Elevation of existing storm sewer pipe on The Lane required a field change. The water main was required to go under the storm sewer pipe rather than over the storm sewer pipe. This required additional water main quality casing to meet IEPA protection standards	Completed			\$ 2,851.37			
4	07/22/13	Connection to Storm Sewer, 8" x 10"	Conflict between proposed storm sewer and existing sanitary sewer	Completed			\$ 2,800.00			
5	07/31/13		Replacement of two brick inlets in the parkway.	Completed						
			Removing Inlets				\$ 100.00			
			Inlets, 2' Dia., Type A, with Type 11 Frame and Grate				\$ 2,800.00			

Subtotal	\$	\$ 127,652.37	\$ 290,263.46
Total		-	Reduction
		\$(162,611.09)	

Construction	Project Budget
	Girardi Bid
	Change Order Requests to date
	Revised Contract Amount
	Remaining Project Construction Budget

1,889,739.50	1,918,874.00
(162,611.09)	
	<u>1,727,128.41</u>
	191,745.59

DATE: January 13, 2014

REQUEST FOR BOARD ACTION

AGENDA	ORIGINATING
SECTION NUMBER Board of Trustees Agenda	DEPARTMENT Community Development
ITEM Contract Change Order #1 2013 Resurfacing Project Gerardi Sewer & Water Company	APPROVAL Dan Deeter Village Engineer

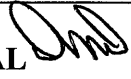
Staff is recommending approval of the attached change order 1. This change order includes final balancing of line item quantities (bid quantities versus actual construction quantities) as well as change order requests implemented and approved throughout the project. The final unit quantities and change order requests were reviewed by the Resident Engineer. They were previously reported to the Village Manager and Environment & Public Services Committee. Supporting documentation for each change order is on file with the Village staff.

This change order reflects the final construction cost for the project of \$1,727,128.41. The project contract amount was \$1,889,739.50 resulting in a savings for construction of \$162,611.09. The overall project savings (including engineering and construction) is \$259,350 as shown below. The Village has received a maintenance bond valued at 10% of the construction cost from Gerardi Sewer & Water Company.

The 2013 Resurfacing Project budget is listed below:

	<u>MIP Budget</u>	<u>Costs</u>
• Design Engineering	\$ 106,604	\$ 72,118
• Construction Observation	\$ 106,604	\$ 73,486
• Construction	<u>\$1,918,874</u>	<u>\$1,727,128</u>
• Total	\$2,132,082	\$1,872,732
• Budget Variance		\$ 259,350

MOTION: To Approve a Resolution for the 2013 Resurfacing Project Construction Contract Change Order Number 1 in the Amount of \$162,611.09 Reduction to Gerardi Sewer & Water Company.

APPROVAL 	APPROVAL	APPROVAL	APPROVAL	MANAGER'S APPROVAL
COMMITTEE ACTION:				
BOARD ACTION:				

RESOLUTION NO. _____

**A RESOLUTION APPROVING THE 2013 RESURFACING PROJECT
CONSTRUCTION CONTRACT CHANGE ORDER
NUMBER 1 IN THE AMOUNT OF \$ 162,611.09 TO
GERARDI SEWER & WATER COMPANY.**

WHEREAS, the Village of Hinsdale (the "Village") and Gerardi Sewer & Water Company ("Gerardi") have entered into that certain Contract (the "Contract") providing for the construction of the 2013 Resurfacing Project; and

WHEREAS, the President and Board of Trustees of the Village hereby find that the circumstances said to necessitate this Change Order were not reasonably foreseeable at the time the Contract was signed, the Change Order was germane to the original Contract as signed, and the Change Order is in the best interest of the Village of Hinsdale and authorized by law;

NOW, THEREFORE, BE IT RESOLVED by the President and Board of Trustees of the Village of Hinsdale, DuPage and Cook Counties and State of Illinois, as follows:

Section 1. Recital. The foregoing recitals are incorporated herein as findings of the President and Board of Trustees.

Section 2. Approval of Change Order. The Change Order is hereby approved in the form attached (Exhibit A) to this Ordinance and by this reference incorporated herein.

Section 3. Final Determination. This Resolution shall constitute the written determination required by Section 33E-9 of the Article 33E of the Criminal Code of 1961, as amended and shall be retained in the Contract file as required by said Section.

Section 4. Execution of Change Order. The Village Manager is authorized to execute the Change Order on behalf of the Village.

Section 5. Effective Date. This resolution shall be in full force and effective from and after its passage and approval.

PASSED: this _____ day of _____ 2014.

AYES:

NAYS:

ABSENT:

APPROVED this _____ day of _____ 2014.

Village President

ATTEST:

Village Clerk

Exhibit A
VILLAGE OF HINSDALE
CHANGE ORDER

Project: 2013 Resurfacing Project
Location: Various Streets
Contractor: Gerardi Sewer & Water Company

Change Order No. 1
Contract No. - N/A
Date: 01/13/14
Page 1 of 3

- I. A. Description of Changes Involved:
- 1 Storm sewer pipe retrofit was changed from "pipe bursting" to pipe lining.
 - 2 Adjustments to water main fittings and valves. TideFlex Valve increased from 15" to 21".
 - 3 Field change to route water main under the storm sewer pipe rather than over the storm sewer pipe.
 - 4 Connection to Storm Sewer, 8" x 10"
 - 5 Replacement of two brick inlets in the parkway.
 - 6 Provide storm sewer stub for resident at 602 N. County Line
 - 7 Replace two existing inlets.
 - 8 Change from "area reflective crack control" to "strip reflective crack control"
 - 9 PCC Base Course, Widening, Variable Depth
 - 10 Reconstruct sanitary manhole Minneola & N. County Line Road.
 - 11 Additional Brick Pavement Replacement
 - 12 Driveway Surface, 5", Commercial
 - 13 Contractor augered more water services than anticipated in the engineer's estimate.
 - 14 Final line item and quantity reconciliation.

Project: 2013 Resurfacing
Location: Various Streets
Contractor: Gerardi Sewer & Water Company

Change Order No. 1
Contract No. - N/A
Date: 01/13/14
Page 1 of 3

B. Reason for Change:

- 1 Conflict with NICOR 8" Gas Main
- 2 Water main valves placement adjusted at direction of Hinsdale Water Division. Tideflex increased to match existing pipe.
- 3 Underground conflict at The Lane required field change to protect pipe from frost line and to meet IEPA watermain protection standards.
- 4 Conflict between proposed storm sewer and existing sanitary
- 5 Storm inlets in the parkway were in need of replacement.
- 6 Provide drainage for low point west of the street.
- 7 Inlets were found to be in poor condition.
- 8 Water service construction allowed for strip reflective crack control application.
- 9 Construction required additional PCC base course than estimated in design.
- 10 Field conditions required sanitary manhole reconstruction.
- 11 Resetting additional driveway pavers after curb replacement.
- 12 Repave a commercial driveway which was identified as residential in the plans.
- 13 Saved trench backfill costs.
- 14 Project completion.

C. Revision in Contract Price: Total Deduction: \$ 162,611.09

1	Addition	\$	17,404.20
2	Addition	\$	40.00
3	Addition	\$	2,851.37
4	Addition	\$	2,800.00
5	Addition	\$	2,900.00
6	Addition	\$	1,214.00
7	Addition	\$	3,590.00
8	Deduction	\$	1,047.50
9	Addition	\$	1,801.80
10	Addition	\$	1,395.00
11	Addition	\$	1,620.00
12	Addition	\$	2,000.00
13	Deduction	\$	30,542.00
14	Deduction	\$	168,637.96

Project: 2013 Resurfacing
Location: Various Streets
Contractor: Gerardi Sewer & Water Company

Change Order No. 1
Contract No. - N/A
Date: 01/13/14
Page 3 of 3

II. Adjustments in Contract Price:

A.	Original Contract Price:	\$ 1,889,739.50
B.	Net (addition)(reduction) due to all previous Change Order No. _____	\$ -
C.	Contract Price, not including this Change Order	\$ 1,889,739.50
D.	(Addition)(Deduction) to Contract Price due to this Change Order	\$ 162,611.09
E.	Contract Price including this Change Order	<u>\$ 1,727,128.41</u>

Accepted:
Contractor: Gerardi Sewer & Water Company

By: _____
Signature of Authorized Representative Date

Village of Hinsdale:

By: _____
Signature of Authorized Representative Date

Gerardi Sewer & Water Co.

4520 N. OSAGE
NORRIDGE, IL 60706
(708) 453-4715



11-26-13

Village of Hinsdale
19 East Chicago Ave.
Hinsdale, IL 60521-3489

Attn: Mr. Al Diaz

Re: 2013 Street Improvement-Resurfacing (#1542)

Final Payout

1. Trench Backfill	4278.49	C.Y @ \$	32.00	\$136,911.68
2. Earth Excavation	1.30	C.Y @ \$	30.00	\$ 39.00
3. Topsoil Furnish & Place	2800	S.Y @ \$	5.00	\$ 14,000.00
4. Sodding	2800	S.Y @ \$	4.00	\$ 11,200.00
5. Supplemental Watering	--	UN @ \$	5.00	\$ 00.00
6. Inlet & Pipe Protection	27	Ea. @ \$	105.00	\$ 2,835.00
7. Tree Protection Fencing	2269	L.F @ \$	2.45	\$ 5,559.05
8. Root Pruning	61	L.F @ \$	3.30	\$ 201.30
9. Agg. Base Ty B, 6"	3584	S.Y @ \$	5.25	\$ 18,816.00
10. Agg. Base Ty B, 12"	218	S.Y @ \$	10.50	\$ 2,289.00
11. Agg. for Temp Access	2123	TN @ \$	10.50	\$ 22,291.50
12. Temporary Ramp (H.M.A.)	--	S.Y @ \$	24.00	\$ 00.00
13. H.M.A. Base Crse 6 1/2"	3584	S.Y @ \$	41.00	\$146,944.00
14. H.M.A. Binder Crse, 2 1/2"	555	TN @ \$	66.00	\$ 36,630.00
15. Mix for Cracks, Jts & Flg	--	TN @ \$	100.00	\$ 00.00
16. Bit. Materials Prime Coat	2400	Gal @ \$.05	\$ 120.00
17. Aggregate Prime Coat	11	TN @ \$	5.00	\$ 55.00
18. Leveling Binder 3/4"	482.98	TN @ \$	76.50	\$ 36,947.97
19. H.M.A. Surface Crse 2"	2296.13	TN @ \$	68.00	\$156,136.84
20. H.M.A. Surface Driveway 3"	92	S.Y @ \$	30.00	\$ 2,760.00
21. PCC Driveway 6"	37	S.Y @ \$	70.00	\$ 2,590.00
22. PCC Sidewalk 5"	6202	S.F @ \$	4.60	\$ 28,529.20
23. Detectable Warnings	576	S.F @ \$	26.00	\$ 14,976.00
24. H.M.A. Surface Rem 2"	11,048	S.Y @ \$	2.90	\$ 32,039.20
25. H.M.A. Surface Rem 3"	10,298	S.Y @ \$	3.60	\$ 37,072.80
26. Pavement Removal	3802	S.Y @ \$	3.00	\$ 11,406.00
27. Driveway Pavement	169	S.Y @ \$	9.00	\$ 1,521.00
28. Butt Joints	616	S.Y @ \$	9.50	\$ 5,852.00
29. Curb & Gutter Removal	2342	L.F @ \$	4.00	\$ 9,372.00
30. Sidewalk Removal	6150	S.F @ \$	1.00	\$ 6,150.00
31. Strip Reflective Treatment	7928	L.F @ \$	2.00	\$ 15,856.00
32. Area Reflective Treatment	--	S.Y @ \$	2.00	\$ 00.00
33. Storm Sewer W.M. Q, 8"	143	L.F @ \$	38.00	\$ 5,434.00
34. Storm Sewer W.M. Q, 12"	119	L.F @ \$	48.00	\$ 5,712.00
35. Storm Sewer 12" RCP	--	L.F @ \$	40.00	\$ 00.00

36.	Storm Sewer 18" RCP	1302 L.F	@ \$	48.00	\$62,496.00
37.	Flared End Section 18"	1 Ea.	@ \$	750.00	\$ 750.00
38.	Tideflex checkmate 8"	1 Ea	@ \$	1,500.00	\$ 1,500.00
39.	Tideflex Checkmate 15"	-- Ea	@ \$	4,000.00	\$ 00.00
40.	Tideflex Checkmate 18"	1 Ea	@ \$	4,500.00	\$ 4,500.00
41.	Inlets 2' Dia./Ty 11	9 Ea	@ \$	1,400.00	\$12,600.00
42.	Catch Basin 2' w/Ty 1	2 Ea	@ \$	1,475.00	\$ 2,950.00
43.	Catch Basin 2' w/Ty 8	1 Ea	@ \$	1,275.00	\$ 1,275.00
44.	Catch Basin 2' w/Ty 11	8 Ea	@ \$	1,675.00	\$13,400.00
45.	Catch Basin 4' Special #1	1 Ea	@ \$	3,000.00	\$ 3,000.00
46.	Catch Basin 4' w/Ty 11	1 Ea	@ \$	1,975.00	\$ 1,975.00
47.	Catch Basin 5' w/Ty 1	1 Ea	@ \$	2,400.00	\$ 2,400.00
48.	Manholes 4' w/Ty 1	6 Ea	@ \$	2,000.00	\$12,000.00
49.	Manholes 4' w/Ty 8	1 Ea	@ \$	1,800.00	\$ 1,800.00
50.	Manholes 4' w/Ty 11	2 Ea	@ \$	2,100.00	\$ 4,200.00
51.	Manholes 6' w/Ty 1	2 Ea	@ \$	3,750.00	\$ 7,500.00
52.	Storm Man to be Reconn	-- Ea	@ \$	1,500.00	\$ 00.00
53.	Storm Man to be Adj	5 Ea	@ \$	375.00	\$ 1,875.00
54.	Storm Man to be Adj, Spl	1 Ea	@ \$	525.00	\$ 525.00
55.	Inlets to be Adj. Spl	4 Ea	@ \$	425.00	\$ 1,700.00
56.	Vaults to be Adj. Spl	2 Ea	@ \$	525.00	\$ 1,050.00
57.	V.B to be adj, Spl	1 Ea	@ \$	275.00	\$ 275.00
58.	San Man to be Adj. Spl	6 Ea	@ \$	1,000.00	\$ 6,000.00
59.	San Man to be Adj. w/F & L	9 Ea	@ \$	1,275.00	\$11,475.00
60.	San Man to be Rec. Spl	8 Ea	@ \$	2,000.00	\$16,000.00
61.	Sanitary Manholes, 4' Dia.	-- Ea	@ \$	6,500.00	\$ 00.00
62.	New Ty 1 Frame & SSL	8 Ea	@ \$	275.00	\$ 2,200.00
63.	Structures to be Cleaned	5 Ea	@ \$	300.00	\$ 1,500.00
64.	Storm Sewer Removal	117 L.F	@ \$	4.00	\$ 468.00
65.	Sanitary Sewer Removal	14 L.F	@ \$	4.00	\$ 56.00
66.	Sanitary Sewer, 12" D.I.P.	14 L.F	@ \$	120.00	\$ 1,680.00
67.	Sanitary Service, 6" D.I.P.	230 L.F	@ \$	40.00	\$ 9,200.00
68.	Sanitary Lateral Encasement	-- Ea.	@ \$	500.00	\$ 00.00
69.	Removing Inlets	18 Ea	@ \$	50.00	\$ 900.00
70.	Removing Man & C.B.	10 Ea	@ \$	275.00	\$ 2,750.00
71.	Removing Sanitary Man	-- Ea	@ \$	275.00	\$ 00.00
72.	Curb & Gutter Ty B6.12	2343 L.F	@ \$	16.00	\$37,488.00
73.	Curb & Gutter, Special	-- L.F	@ \$	30.00	\$ 00.00
74.	Mobilization	1.00 L.S	@ \$25,000.00		\$25,000.00
75.	Traffic Control & Protect	1 L.S	@ \$67,700.00		\$67,700.00
76.	Changeable Message Board	1.27 CM	@ \$ 3,500.00		\$ 4,445.00
77.	Railroad Liability Insur	1 L.S	@ \$ 5,000.00		\$ 5,000.00
78.	Railroad Flaggers	1 L.S	@ \$ 4,000.00		\$ 4,000.00
79.	Thermo Pavt Marking Line 4"	1257 L.F	@ \$.80	\$ 1,005.60
80.	thermo Pavt Marking line 6"	690 L.F	@ \$	1.25	\$ 862.50
81.	Thermo Pavt Marking Line 12"	234 L.F	@ \$	2.50	\$ 585.00
82.	Thermo Pavt Marking line 16"	84 L.F	@ \$	3.35	\$ 281.40
83.	Thermo Pavt Marking line 24"	204 L.F	@ \$	5.00	\$ 1,020.00
84.	Thermo Pavt Marking Lt & Sy	212 S.F	@ \$	3.25	\$ 689.00
85.	Detector Loop R & R	116 L.F	@ \$	25.00	\$ 2,900.00
86.	6" PVC C-900 W.M.	220 L.F	@ \$	34.00	\$ 7,480.00

87.	8" PVC C-900 W.M.	3642	L.F.	@ \$	44.00	\$160,248.00
88.	14" Steel Casing	92	L.F.	@ \$	60.00	\$ 5,520.00
89.	16" Steel Casing	220	L.F.	@ \$	80.00	\$ 17,600.00
90.	PCC Thrust Block	46	Ea.	@ \$	75.00	\$ 3,450.00
91.	6" Pressure Connection	8	Ea.	@ \$	4,000.00	\$ 32,000.00
92.	8" Pressure Connection	1	Ea.	@ \$	4,350.00	\$ 4,350.00
93.	8" Non-Pressure Connection	2	Ea.	@ \$	2,850.00	\$ 5,700.00
94.	Watermain Disconnection	9	Ea.	@ \$	975.00	\$ 8,775.00
95.	6" R.S. Gate Valve	8	Ea.	@ \$	775.00	\$ 6,200.00
96.	8" R.S. Gate Valve	8	Ea.	@ \$	1,200.00	\$ 9,600.00
97.	6" Insert Valve	8	Ea.	@ \$	5,500.00	\$ 44,000.00
98.	48" Dia. Valve Vault	13	Ea.	@ \$	1,850.00	\$ 24,050.00
99.	6" Valve Box	12	Ea.	@ \$	500.00	\$ 6,000.00
100.	Valve Vault Removal	7	Ea.	@ \$	300.00	\$ 2,100.00
101.	Valve Box Removal	2	Ea.	@ \$	100.00	\$ 200.00
102.	Fire Hydrant 6" Inlet	8	Ea.	@ \$	3,000.00	\$ 24,000.00
103.	Fire Hydrant Removal	6	Ea.	@ \$	500.00	\$ 3,000.00
104.	Water Service Conn 1 1/2"	75	Ea.	@ \$	775.00	\$ 58,125.00
105.	Water Service 1 1/2"	0	L.F.	@ \$	12.00	\$ 00.00
106.	Water Service 1 1/2" Augured	2369	L.F.	@ \$	14.00	\$ 33,166.00
107.	Curb Stop & Box 1 1/2"	72	Ea.	@ \$	750.00	\$ 54,000.00
108.	Soil Certification	1	L.S.	@ \$	1,500.00	\$ 1,500.00
109.	PCC Driveway Pavt 6" Spl	--	S.Y.	@ \$	100.00	\$ 00.00
110.	Pipe Bursting 10" S.S.	--	L.F.	@ \$	80.00	\$ 00.00
111.	Storm Sewer Reinstatement	--	Ea.	@ \$	825.00	\$ 00.00
112.	Storm Sewer Cleaning & T.V.	1	L.S.	@ \$	4,000.00	\$ 4,000.00
113.	Point Repair #1	1	L.S.	@ \$	3,850.00	\$ 3,850.00
114.	Point Repair #2	1	L.S.	@ \$	3,500.00	\$ 3,500.00
115.	Point Repair #3	1	L.S.	@ \$	10,770.00	\$ 10,770.00
116.	Point Repair #4	1	L.S.	@ \$	15,800.00	\$ 15,800.00
117.	12" CIPP	1	L.S.	@ \$	28,486.20	\$ 28,486.20
118.	Lateral Reinstatement	5	Ea.	@ \$	825.00	\$ 4,125.00
119.	6" Non-Pressure Connection	1	Ea.	@ \$	2,650.00	\$ 2,650.00
120.	8" Insert Valve	1	Ea.	@ \$	6,400.00	\$ 6,400.00
121.	Tideflex Checkmate	1	Ea.	@ \$	7,500.00	\$ 7,500.00
122.	Tunneling 48" Storm	1	L.S.	@ \$	2,851.37	\$ 2,851.37
123.	Connection to S.S. 10"x8"	1	L.S.	@ \$	2,800.00	\$ 2,800.00
124.	6" Connection to M.H.	1	L.S.	@ \$	750.00	\$ 750.00
125.	6" Storm Stub	12	L.F.	@ \$	36.00	\$ 432.00
126.	Inlet 3' Dia. w/Ty 1	2	Ea.	@ \$	1,749.00	\$ 3,490.00
127.	PCC Base Course V.D.	52	S.Y.	@ \$	34.65	\$ 1,801.80
128.	Brick Replacement	18	S.Y.	@ \$	90.00	\$ 1,620.00
129.	New Ty 11 Frame & Grate	1	Ea.	@ \$	395.00	\$ 395.00
130.	H.M.A. Surface Driveway 5"	40	S.Y.	@ \$	50.00	\$ 2,000.00
131.	Sanitary Sewer Lids	6	Ea.	@ \$	155.00	\$ 930.00
132.	21" Pipe	6	L.F.	@ \$	115.00	\$ 690.00

Subtotal	\$1,727,128.41
Less 0% Retention	\$ 00.00
Subtotal	\$1,727,128.41
Less Previous Payout	\$1,550,766.97
Total Amount Due	\$ 176,361.44

PAY REQUEST NO. 7, FINAL
2013 STREET IMPROVEMENTS - RESURFACING (#1542)
VILLAGE OF HINSDALE

BY: EJJ		12/25/2013		HIN-03					
NO.	ITEM DESCRIPTION	UNITS	AWARDED QUANTITY	AWARDED AMOUNTS		ADJUSTED APPROVED AMOUNTS		CONSTRUCTED QUANTITIES	
				UNIT PRICE	EXTENDED PRICE	ADD/Deduct QUANTITIES	TOTAL APPROVED	EXTENDED PRICE	EXTENDED PRICE
1	Trench Backfill, (CA-7)	CY	5,178	\$32.00	\$165,696.00	15	5,193	\$166,176.00	\$136,911.68
2	Earth Excavation	CY	50	\$30.00	\$1,500.00		50	\$1,500.00	\$39.00
3	Topsoil Furnish and Place, 6"	SY	5,335	\$5.00	\$26,675.00	125	5,460	\$27,300.00	\$14,000.00
4	Sodding	SY	5,335	\$4.00	\$21,340.00	125	5,460	\$21,840.00	\$11,200.00
5	Supplemental Waterings	UN	80	\$5.00	\$400.00		80	\$400.00	\$0.00
6	Inlet and Pipe Protection	EA	43	\$105.00	\$4,515.00		43	\$4,515.00	\$2,835.00
7	Tree Protection Fencing	FT	4,163	\$2.45	\$10,199.35	40	4,203	\$10,297.35	\$5,559.05
8	Root Pruning	FT	240	\$3.30	\$792.00		240	\$792.00	\$201.30
9	Aggregate Base Course, Type B, 6"	SY	4,374	\$5.25	\$22,963.50		4,374	\$22,963.50	\$18,816.00
10	Aggregate Base Course, Type B, 12"	SY	230	\$10.50	\$2,415.00		230	\$2,415.00	\$2,289.00
11	Aggregate for Temporary Access	TN	2,031	\$10.50	\$21,325.50		2,031	\$21,325.50	\$22,291.50
12	Temporary Ramp (HMA at Sidewalks)	SY	50	\$24.00	\$1,200.00		50	\$1,200.00	\$0.00
13	HMA Base Course, 6-1/2" (in Two Lifts)	SY	4,374	\$41.00	\$179,334.00		4,374	\$179,334.00	\$146,944.00
14	HMA Binder Course, IL 19.0, N50, 2-1/2" (3" on The Lane)	TN	674	\$66.00	\$44,484.00		674	\$44,484.00	\$36,630.00
15	Mixture for Cracks, Joints and Flangeways	TN	15	\$100.00	\$1,500.00		15	\$1,500.00	\$0.00
16	Bituminous Material, Prime Coat	GL	6,407	\$0.05	\$320.35		6,407	\$320.35	\$120.00
17	Aggregate, Prime Coat	TN	70	\$5.00	\$350.00		70	\$350.00	\$55.00
18	Leveling Binder (Machine Method), N50, 3/4"	TN	549	\$76.50	\$41,988.50		549	\$41,988.50	\$36,947.97
19	HMA Surface Course, Mix D, N50, 2"	TN	2,461	\$68.00	\$167,348.00		2,461	\$167,348.00	\$156,136.84
20	HMA Surface Course, Mix D, N50, Driveways, 3" (& 6" Agg Base)	SY	165	\$30.00	\$4,950.00	20	185	\$5,550.00	\$2,760.00
21	PCC Driveway Pavement, 6" (& 6" Agg. Base)	SY	50	\$70.00	\$3,500.00	-13	37	\$2,590.00	\$2,590.00
22	PCC Sidewalk, 5" (6" at Driveways)	SF	5,373	\$4.60	\$24,715.80	724	6,097	\$28,046.20	\$28,529.20
23	Detectable Warnings	SF	528	\$26.00	\$13,728.00	38	566	\$14,716.00	\$14,976.00
24	HMA Surface Removal, 2"	SY	10,073	\$2.90	\$29,211.70		10,073	\$29,211.70	\$32,039.20
25	HMA Surface Removal, 3"	SY	11,273	\$3.60	\$40,582.80		11,273	\$40,582.80	\$37,072.80
26	Pavement Removal	SY	4,974	\$3.00	\$14,922.00		4,974	\$14,922.00	\$11,406.00
27	Driveway Pavement Removal	SY	235	\$9.00	\$2,115.00	7	242	\$2,178.00	\$1,521.00
28	Butt Joints	SY	616	\$9.50	\$5,852.00		616	\$5,852.00	\$5,852.00
29	Combination Curb and Gutter Removal	FT	2,179	\$4.00	\$8,716.00	164	2,343	\$9,372.00	\$9,372.00
30	Sidewalk Removal	SF	5,373	\$1.00	\$5,373.00	672	6,045	\$6,045.00	\$6,150.00
31	Strip Reflective Crack Control Treatment	FT	3,902	\$2.00	\$7,804.00	5200	9,102	\$18,204.00	\$15,856.00
32	Area Reflective Crack Control Treatment	SY	3,650	\$2.00	\$7,300.00	-3650	0	\$0.00	\$0.00
33	Storm Sewers, Watermain Quality Pipe, 8"	FT	87	\$38.00	\$3,306.00		87	\$3,306.00	\$5,434.00
34	Storm Sewers, Watermain Quality Pipe, 12"	FT	82	\$48.00	\$3,936.00		82	\$3,936.00	\$5,712.00
35	Storm Sewers, Type 2, Class IV, 12" RCP, Rubber Gasketed	FT	6	\$40.00	\$240.00		6	\$240.00	\$0.00
36	Storm Sewers, Type 2, Class IV, 18" RCP, Rubber Gasketed	FT	1,284	\$48.00	\$61,632.00		1,284	\$61,632.00	\$62,496.00
37	PRC Flared End Section, 18" with Grate	EA	1	\$750.00	\$750.00		1	\$750.00	\$750.00
38	Tideflex Checkmate Valve, 8"	EA	1	\$1,500.00	\$1,500.00		1	\$1,500.00	\$1,500.00
39	Tideflex Checkmate Valve, 15"	EA	1	\$4,000.00	\$4,000.00	-1	0	\$0.00	\$0.00
40	Tideflex Checkmate Valve, 18"	EA	1	\$4,500.00	\$4,500.00		1	\$4,500.00	\$4,500.00
41	Inlets, 2' Dia., Type A, with Type 11 Frame and Grate	EA	9	\$1,400.00	\$12,600.00		9	\$12,600.00	\$12,600.00
42	Catch Basin, 2' Dia., Type C, with Type 1 Frame and OL	EA	2	\$1,475.00	\$2,950.00		2	\$2,950.00	\$2,950.00
43	Catch Basin, 2' Dia., Type C, with Type 8 Grate	EA	1	\$1,275.00	\$1,275.00		1	\$1,275.00	\$1,275.00
44	Catch Basin, 2' Dia., Type C, with Type 11 Frame and Grate	EA	8	\$1,675.00	\$13,400.00		8	\$13,400.00	\$13,400.00
45	Catch Basin, 4' Dia., Special #1, with Type 1 Frame and CL	EA	1	\$3,000.00	\$3,000.00		1	\$3,000.00	\$3,000.00
46	Catch Basin, 4' Dia., Type A, with Type 11 Frame and Grate	EA	1	\$1,975.00	\$1,975.00		1	\$1,975.00	\$1,975.00
47	Catch Basin, 5' Dia., Type A with Type 1 Frame and CL (Conflict)	EA	1	\$2,400.00	\$2,400.00		1	\$2,400.00	\$2,400.00
48	Manholes, 4' Dia., Type A, with Type 1 Frame and CL	EA	6	\$2,000.00	\$12,000.00		6	\$12,000.00	\$12,000.00
49	Manholes, 4' Dia., Type A, with Type 8 Grate	EA	1	\$1,800.00	\$1,800.00		1	\$1,800.00	\$1,800.00
50	Manholes, 4' Dia., Type A, with Type 11 Frame and Grate	EA	2	\$2,100.00	\$4,200.00		2	\$4,200.00	\$4,200.00
51	Manholes, 6' Dia., Type A, with Type 1 Frame and CL	EA	2	\$3,750.00	\$7,500.00		2	\$7,500.00	\$7,500.00
52	Storm Manholes to be Reconstructed, Special	EA	2	\$1,500.00	\$3,000.00		2	\$3,000.00	\$0.00
53	Storm Manholes to be Adjusted	EA	9	\$375.00	\$3,375.00		9	\$3,375.00	\$1,875.00
54	Storm Manholes to be Adjusted, Special	EA	2	\$525.00	\$1,050.00		2	\$1,050.00	\$525.00
55	Inlets to be Adjusted, Special	EA	3	\$425.00	\$1,275.00		3	\$1,275.00	\$1,700.00
56	Valve Vaults to be Adjusted, Special	EA	3	\$525.00	\$1,575.00		3	\$1,575.00	\$1,050.00
57	Valve Boxes to be Adjusted, Special	EA	4	\$275.00	\$1,100.00		4	\$1,100.00	\$275.00
58	Sanitary Manholes to be Adjusted, Special	EA	18	\$1,000.00	\$18,000.00	-1	17	\$17,000.00	\$6,000.00
59	Sanitary Manholes to be Adjusted w/ New Frame & SSL, Special	EA	8	\$1,275.00	\$10,200.00		8	\$10,200.00	\$11,475.00
60	Sanitary Manholes to be Reconstructed, Special	EA	7	\$2,000.00	\$14,000.00	1	8	\$16,000.00	\$16,000.00
61	Sanitary Manholes, 4' Dia., Ty A, with Ty 1 Frame And SSL	EA	4	\$6,500.00	\$26,000.00		4	\$26,000.00	\$0.00
62	New Type 1 Frame and SSL	EA	6	\$275.00	\$1,650.00		6	\$1,650.00	\$2,200.00
63	Structures to be Cleaned	EA	7	\$306.00	\$2,100.00		7	\$2,100.00	\$1,600.00
64	Storm Sewer Removal	FT	152	\$4.00	\$608.00		152	\$608.00	\$468.00
65	Sanitary Sewer Removal	FT	40	\$4.00	\$160.00		40	\$160.00	\$56.00
66	Sanitary Sewer, 12" D.I.P., CL-52, Special	FT	40	\$120.00	\$4,800.00		40	\$4,800.00	\$1,680.00
67	Sanitary Service Repair, 6" DIP, CL-52, with Fittings	FT	580	\$40.00	\$23,200.00		580	\$23,200.00	\$9,200.00
68	Sanitary Lateral Encasement	EA	6	\$500.00	\$3,000.00		6	\$3,000.00	\$0.00
69	Removing Inlets	EA	19	\$50.00	\$950.00	2	21	\$1,050.00	\$900.00
70	Removing Storm Manholes and Catch Basins	EA	8	\$275.00	\$2,200.00		8	\$2,200.00	\$2,750.00
71	Removing Sanitary Manholes	EA	4	\$275.00	\$1,100.00		4	\$1,100.00	\$0.00
72	Comb. Concrete Curb and Gutter, Type B 6.12	FT	2,081	\$16.00	\$33,296.00	262	2,343	\$37,488.00	\$37,488.00
73	Comb. Concrete Curb and Gutter, Special	FT	98	\$30.00	\$2,940.00	-98	0	\$0.00	\$0.00
74	Mobilization	LS	1	\$25,000.00	\$25,000.00		1	\$25,000.00	\$25,000.00

75	Traffic Control and Protection	LS	1	\$67,700.00	\$67,700.00		1	\$67,700.00	1.00	\$67,700.00
76	Changeable Message Boards	CM	1	\$3,500.00	\$3,500.00		1	\$3,500.00	1.27	\$4,445.00
77	Railroad Protective Liability Insurance	LS	1	\$5,000.00	\$5,000.00		1	\$5,000.00	1	\$5,000.00
78	Railroad Flaggers	LS	1	\$4,000.00	\$4,000.00		1	\$4,000.00	1	\$4,000.00
79	Thermoplastic Pavement Marking Line - 4"	FT	1,420	\$0.80	\$1,136.00		1,420	\$1,136.00	1,267	\$1,005.60
80	Thermoplastic Pavement Marking Line - 6"	FT	730	\$1.25	\$912.50		730	\$912.50	690	\$862.50
81	Thermoplastic Pavement Marking Line - 12"	FT	224	\$2.50	\$560.00		224	\$560.00	234	\$595.00
82	Thermoplastic Pavement Marking Line - 16"	FT	100	\$3.35	\$335.00		100	\$335.00	84	\$281.40
83	Thermoplastic Pavement Marking Line - 24"	FT	162	\$5.00	\$810.00		162	\$810.00	204	\$1,020.00
84	Thermoplastic Pavement Marking - Letters & Symbols	SF	190	\$3.25	\$617.50		190	\$617.50	212	\$689.00
85	Detector Loop Removal and Replacement	FT	120	\$25.00	\$3,000.00		120	\$3,000.00	116	\$2,900.00
86	6" PVC C-900-75 SDR 18 Watermain	FT	263	\$34.00	\$8,942.00		263	\$8,942.00	220	\$7,480.00
87	8" PVC C-900-75 SDR 18 Watermain	FT	3,622	\$44.00	\$159,368.00		3,622	\$159,368.00	3,642	\$160,248.00
88	14" Steel Casing Pipe	FT	100	\$60.00	\$6,000.00		100	\$6,000.00	92	\$5,520.00
89	16" Steel Casing Pipe	FT	232	\$80.00	\$18,560.00		232	\$18,560.00	220	\$17,600.00
90	Reinforced PCC Thrust Blocks	EA	50	\$75.00	\$3,750.00		50	\$3,750.00	46	\$3,450.00
91	6" Pressure Connect with Tapping Valve and Sleeve	EA	8	\$4,000.00	\$32,000.00		8	\$32,000.00	8	\$32,000.00
92	8" Pressure Connect with Tapping Valve and Sleeve	EA	3	\$4,350.00	\$13,050.00		3	\$13,050.00	1	\$4,350.00
93	8" Non-Pressure Connection	EA	2	\$2,850.00	\$5,700.00		2	\$5,700.00	2	\$5,700.00
94	Watermain Disconnection (Cut, Cap and Block)	EA	9	\$975.00	\$8,775.00		9	\$8,775.00	9	\$8,775.00
95	6" RS Gate Valve	EA	8	\$775.00	\$6,200.00		8	\$6,200.00	8	\$6,200.00
96	8" RS Gate Valve	EA	6	\$1,200.00	\$7,200.00		6	\$7,200.00	8	\$9,600.00
97	6" Insert Valve	EA	10	\$5,500.00	\$55,000.00	-2	8	\$44,000.00	8	\$44,000.00
98	48" Dia., Type A Valve Vault with Fr. and Lid	EA	16	\$1,850.00	\$29,600.00	-2	14	\$25,900.00	13	\$24,050.00
99	6" Valve Box	EA	9	\$500.00	\$4,500.00	3	12	\$6,000.00	12	\$6,000.00
100	Valve Vault Removal	EA	8	\$300.00	\$2,400.00		8	\$2,400.00	7	\$2,100.00
101	Valve Box Removal	EA	5	\$100.00	\$500.00		5	\$500.00	2	\$200.00
102	Fire Hydrant, 6" Inlet	EA	8	\$3,000.00	\$24,000.00		8	\$24,000.00	8	\$24,000.00
103	Fire Hydrant Removal	EA	6	\$500.00	\$3,000.00		6	\$3,000.00	6	\$3,000.00
104	Water Service Connections, 1-1/2"	EA	74	\$775.00	\$57,350.00		74	\$57,350.00	75	\$58,125.00
105	Water Service Piping, 1-1/2" Copper, Type K	FT	1,513	\$12.00	\$18,156.00	-1513	0	\$0.00	0	\$0.00
106	Water Service Piping, 1-1/2" Augered Copper, Type K	FT	967	\$14.00	\$13,538.00	1513	2,480	\$34,720.00	2,369	\$33,166.00
107	Curb Stop and Box, 1-1/2"	EA	74	\$750.00	\$55,500.00		74	\$55,500.00	72	\$54,000.00
108	Uncontaminated Soil Certification	LS	1	\$1,500.00	\$1,500.00		1	\$1,500.00	1	\$1,500.00
109	PCC Driveway Pavement, 6" (& 5" Agg. Base) - Special	SY	40	\$100.00	\$4,000.00		40	\$4,000.00	0	\$0.00
110	Alternate 1, Pipe Bursting, 10" Storm Sewer	FT	567	\$80.00	\$45,360.00	-567	0	\$0.00	0	\$0.00
111	Alternate 1, Storm Service Reinstatement	EA	14	\$825.00	\$11,550.00	-14	0	\$0.00	0	\$0.00
112	Initial Storm Sewer Heavy Cleaning and Televising	LS		\$4,000.00	\$0.00	1	1	\$4,000.00	1	\$4,000.00
113	Point Repair #1 110-121	LS		\$3,850.00	\$0.00	1	1	\$3,850.00	1	\$3,850.00
114	Point Repair #2 180-190	LS		\$3,500.00	\$0.00	1	1	\$3,500.00	1	\$3,500.00
115	Point Repair #3 278-327	LS		\$10,770.00	\$0.00	1	1	\$10,770.00	1	\$10,770.00
116	Point Repair #4 0-80	LS		\$15,800.00	\$0.00	1	1	\$15,800.00	1	\$15,800.00
117	12" CIPP (Cast-in-Place Pipe)	LS		\$28,486.20	\$0.00	1	1	\$28,486.20	1	\$28,486.20
118	Lateral Reinstatement	EA		\$825.00	\$0.00	6	6	\$4,950.00	5	\$4,125.00
119	6" Non-Pressure Connection	EA		\$2,650.00	\$0.00	1	1	\$2,650.00	1	\$2,650.00
120	8" Insert Valve	EA		\$6,400.00	\$0.00	1	1	\$6,400.00	1	\$6,400.00
121	Tideflex Checkmate Valve 21"	EA		\$7,500.00	\$0.00	1	1	\$7,500.00	1	\$7,500.00
122	T&M Tunneling Under 48" Storm Sewer	LS		\$2,851.37	\$0.00	1	1	\$2,851.37	1	\$2,851.37
123	Connection to Storm Sewer, 8" x 10"	LS		\$2,800.00	\$0.00	1	1	\$2,800.00	1	\$2,800.00
124	6" Connection to MH 30+00	LS		\$750.00	\$0.00	1	1	\$750.00	1	\$750.00
125	6" Storm Stub to #602 County Line Road	FT		\$36.00	\$0.00	12	12	\$432.00	12	\$432.00
126	Inlet 3' Dia w/TY I Fr & CL	EA		\$1,745.00	\$0.00	2	2	\$3,490.00	2	\$3,490.00
127	PCC Base Course, Widening, Variable Depth	SY		\$34.65	\$0.00	50	125	\$4,331.25	52	\$1,801.80
128	Brick Paver Replacement	SY		\$90.00	\$0.00	20	20	\$1,800.00	18	\$1,620.00
129	New Type 11 Frame and Grate	EA		\$395.00	\$0.00	1	1	\$395.00	1	\$395.00
130	Driveway Surface, 6", Commercial	SY		\$50.00	\$0.00	40	40	\$2,000.00	40	\$2,000.00
131	New Sanitary Manhole Lids, TY S.S.L.	EA		\$155.00	\$0.00	6	6	\$930.00	6	\$930.00
132	Storm Sewer, 21"	LF		\$115.00	\$0.00	6	6	\$690.00	6	\$690.00
SUBTOTAL				\$1,889,739.50		\$1,939,585.72			\$1,727,128.41	
LESS 0% RETAINAGE									\$0.00	
LESS PREVIOUS PAYMENTS									\$1,550,766.97	
TOTAL									\$176,361.44	

Change Order Field Record

Change Request No.	Date	Pay Item	Description and Reason for Change	Status	Estimated Cost		Submitted Cost		Change Order No.	Board Approval Date
					Addition	Deduction	Addition	Deduction		
1	06/03/13		Conflict with NICOR 8" Gas Main changed the storm sewer pipe retrofit from "pipe bursting" to pipe lining.	Completed						
			Trench Backfill				\$ 480.00			1
			Topsoil Furnish and Place, 6"				\$ 625.00			3
			Sodding				\$ 500.00			4
			Tree Portection Fencing				\$ 98.00			7
			HMA Surface Course, Mix D, N50, Driveways, 3" (& 6" Agg. Base)				\$ 600.00			80
			PCC Sidewalk, 5" (6" at driveways)				\$ 230.00			22
			Driveway Pavement Removal				\$ 180.00			27
			Combination Curb & Gutter Removal				\$ 204.00			29
			Sidewalk Removal				\$ 50.00			30
			Combination Concrete Curb & Gutter, Type B-6.12				\$ 816.00			72
			Alternate 1, Pipe Bursting 10" Storm Sewer				\$ 45,360.00			110
			Alternate 1, Storm Service Reinstatement				\$ 4,000.00			112
			Initial Storm Sewer Heavy Cleaning & Televising				\$ 3,850.00			113
			Point Repair #1 110-121				\$ 3,500.00			114
			Point Repair #2 180-190				\$ 10,770.00			115
			Point Repair #3 278-327				\$ 15,800.00			116
			Point Repair #4 0-80				\$ 28,486.20			117
			12" CIPP (Cast-in-Place-Pipe)				\$ 4,125.00			118
			Lateral Reinstatement							
2	07/18/13		Adjustments to water main fittings and valves. TideFlex Valve increased from 15" to 21" to match storm sewer pipe size.	Completed						
			6" Non-Pressure Connection				\$ 2,650.00			119
			48" Dia. Valve Vault with Fr & Lid, 2 each				\$ 3,700.00			98
			6" Valve Box, 3 each				\$ 1,500.00			99
			8" Insert Valve				\$ 6,400.00			120
			8" Insert Valve, 2 each				\$ 11,000.00			97
			Storm Sewer, 21"				\$ 690.00			132
			Tideflex Checkmate Valve, 21"				\$ 7,500.00			121
			Tideflex Checkmate Valve, 15"				\$ 4,000.00			39
3	07/19/13	T&M Tunneling Under 48" Storm Sewer	Elevation of existing storm sewer pipe on The Lane required a field change. The water main was required to go under the storm sewer pipe rather than over the storm sewer pipe. This required additional water main quality casing to meet LEPA protection standards	Completed			\$ 2,851.37			122
4	07/22/13	Connection to Storm Sewer, 8" x 10"	Conflict between proposed storm sewer and existing sanitary sewer	Completed			\$ 2,800.00			123
5	07/31/13	Replacing Inlets	Replacement of two brick inlets in the parkway.	Completed			\$ 100.00			69
			Removing Inlets				\$ 2,800.00			41
			Inlets, 2' Dia., Type A, with Type 11 Frame and Grate							

\$	-	\$	\$ 127,472.37	\$ 291,111.46
			\$ (163,639.09)	Reduction

Project Budget	Change Order Requests to date	Revised Contract Amount	Remaining Project Construction Budget
Girardi Bid			

PAY REQUEST NO. 7, FINAL
2013 STREET IMPROVEMENTS - RESURFACING (#1542)
VILLAGE OF HINSDALE

12/20/2013
 BY: EJ

HIN-09

NO.	ITEM DESCRIPTION	UNITS	AWARDED AMOUNTS		ADJUSTED APPROVED AMOUNTS			CONSTRUCTED QUANTITIES	
			AWARDED QUANTITY	UNIT PRICE	EXTENDED PRICE	ADD / REDUCT QUANTITIES	TOTAL APPROVED	EXTENDED PRICE	EXTENDED PRICE
1	Trench Backfill, (CA-7)	CY	5,178	\$32.00	\$165,696.00	15	5,193	\$166,176.00	\$136,911.68
2	Earth Excavation	CY	50	\$30.00	\$1,500.00		50	\$1,500.00	\$39.00
3	Topsoil Furnish and Place, 6"	SY	5,335	\$5.00	\$26,675.00	125	5,460	\$27,300.00	\$14,000.00
4	Sodding	SY	5,335	\$4.00	\$21,340.00	125	5,460	\$21,840.00	\$11,200.00
5	Supplemental Waterings	UN	80	\$5.00	\$400.00		80	\$400.00	\$0.00
6	Inlet and Pipe Protection	EA	43	\$105.00	\$4,515.00		43	\$4,515.00	\$2,835.00
7	Tree Protection Fencing	FT	4,163	\$2.45	\$10,199.35	40	4,203	\$10,297.35	\$5,659.05
8	Root Pruning	FT	240	\$3.30	\$792.00		240	\$792.00	\$201.30
9	Aggregate Base Course, Type B, 6" <i>CHG ORD # 8</i>	SY	4,374	\$6.25	\$22,963.50		4,374	\$22,963.50	\$18,816.00
10	Aggregate Base Course, Type B, 12"	SY	230	\$10.50	\$2,415.00		230	\$2,415.00	\$2,289.00
11	Aggregate for Temporary Access	TN	2,031	\$10.50	\$21,325.50		2,031	\$21,325.50	\$22,291.50
12	Temporary Ramp (HMA at Sidewalks)	SY	50	\$24.00	\$1,200.00		50	\$1,200.00	\$0.00
13	HMA Base Course, 6-1/2" (In Two Lifts)	SY	4,374	\$41.00	\$179,334.00		4,374	\$179,334.00	\$146,944.00
14	HMA Binder Course, IL 19.0, N50, 2-1/2" (3" on The Lane)	TN	674	\$66.00	\$44,484.00		674	\$44,484.00	\$36,630.00
15	Mixture for Cracks, Joints and Flangeways	TN	15	\$100.00	\$1,600.00		15	\$1,600.00	\$0.00
16	Bituminous Material, Prime Coat	GL	6,407	\$0.05	\$320.35		6,407	\$320.35	\$120.00
17	Aggregate, Prime Coat	TN	70	\$5.00	\$350.00		70	\$350.00	\$55.00
18	Leveling Binder (Machine Method), N50, 3/4"	TN	549	\$76.50	\$41,998.50		549	\$41,998.50	\$36,947.97
19	HMA Surface Course, Mix D, N50, 2"	TN	2,461	\$68.00	\$167,348.00		2,461	\$167,348.00	\$156,136.84
20	HMA Surface Course, Mix D, N50, Driveways, 3" (& 6" Agg Base)	SY	165	\$30.00	\$4,950.00		165	\$5,550.00	\$2,760.00
21	PCC Driveway Pavement, 6" (& 6" Agg. Base)	SY	50	\$70.00	\$3,500.00	-13	37	\$2,590.00	\$2,590.00
22	PCC Sidewalk, 6" (6" at Driveways)	SF	5,373	\$4.60	\$24,715.80	724	6,097	\$28,046.20	\$28,529.20
23	Detectable Warnings	SF	528	\$28.00	\$13,728.00	38	566	\$14,716.00	\$14,976.00
24	HMA Surface Removal, 2"	SY	10,073	\$2.90	\$29,211.70		10,073	\$29,211.70	\$32,039.20
25	HMA Surface Removal, 3"	SY	11,273	\$3.60	\$40,582.80		11,273	\$40,582.80	\$37,072.80
26	Pavement Removal	SY	4,974	\$3.00	\$14,922.00		4,974	\$14,922.00	\$11,406.00
27	Driveway Pavement Removal	SY	235	\$9.00	\$2,115.00	7	242	\$2,178.00	\$1,521.00
28	Butt Joints	SY	616	\$9.50	\$5,852.00		616	\$5,852.00	\$5,852.00
29	Combination Curb and Gutter Removal	FT	2,179	\$4.00	\$8,716.00	164	2,343	\$9,372.00	\$9,372.00
30	Sidewalk Removal	SF	5,373	\$1.00	\$5,373.00	672	6,045	\$6,045.00	\$6,150.00
31	Strip Reflective Crack Control Treatment <i>CHG ORD # 8</i>	FT	3,902	\$2.00	\$7,804.00	5200	9,102	\$18,204.00	\$15,556.00
32	Area Reflective Crack Control Treatment <i>CHG ORD # 8</i>	SY	3,650	\$2.00	\$7,300.00	-3650	0	\$0.00	\$0.00
33	Storm Sewers, Watermain Quality Pipe, 8"	FT	87	\$38.00	\$3,306.00		87	\$3,306.00	\$5,434.00
34	Storm Sewers, Watermain Quality Pipe, 12"	FT	82	\$48.00	\$3,936.00		82	\$3,936.00	\$5,712.00
35	Storm Sewers, Type 2, Class IV, 12" RCP, Rubber Gasketed	FT	6	\$40.00	\$240.00		6	\$240.00	\$0.00
36	Storm Sewers, Type 2, Class IV, 18" RCP, Rubber Gasketed	FT	1,284	\$48.00	\$61,632.00		1,284	\$61,632.00	\$62,496.00
37	PRC Flared End Section, 18" with Grate	EA	1	\$750.00	\$750.00		1	\$750.00	\$750.00
38	Tideflex Checkmate Valve, 8"	EA	1	\$1,500.00	\$1,500.00		1	\$1,500.00	\$1,500.00
39	Tideflex Checkmate Valve, 15" <i>CHG ORD # 2</i>	EA	1	\$4,000.00	\$4,000.00	-1	0	\$0.00	\$0.00
40	Tideflex Checkmate Valve, 18"	EA	1	\$4,500.00	\$4,500.00		1	\$4,500.00	\$4,500.00
41	Inlets, 2' Dia., Type A, with Type 11 Frame and Grate <i>CHG ORD # 5</i>	EA	9	\$1,400.00	\$12,600.00		9	\$12,600.00	\$12,600.00
42	Catch Basin, 2' Dia., Type C, with Type 1 Frame and OL	EA	2	\$1,475.00	\$2,950.00		2	\$2,950.00	\$2,950.00
43	Catch Basin, 2' Dia., Type C, with Type 8 Grate	EA	1	\$1,275.00	\$1,275.00		1	\$1,275.00	\$1,275.00
44	Catch Basin, 2' Dia., Type C, with Type 11 Frame and Grate	EA	8	\$1,675.00	\$13,400.00		8	\$13,400.00	\$13,400.00
45	Catch Basin, 4' Dia., Special #1, with Type 1 Frame and CL	EA	1	\$3,000.00	\$3,000.00		1	\$3,000.00	\$3,000.00
46	Catch Basin, 4' Dia., Type A, with Type 11 Frame and Grate	EA	1	\$1,975.00	\$1,975.00		1	\$1,975.00	\$1,975.00
47	Catch Basin, 6' Dia., Type A with Type 1 Frame and CL (Conflict)	EA	1	\$2,400.00	\$2,400.00		1	\$2,400.00	\$2,400.00
48	Manholes, 4' Dia., Type A, with Type 1 Frame and CL	EA	6	\$2,000.00	\$12,000.00		6	\$12,000.00	\$12,000.00
49	Manholes, 4' Dia., Type A, with Type 8 Grate	EA	1	\$1,800.00	\$1,800.00		1	\$1,800.00	\$1,800.00
50	Manholes, 4' Dia., Type A, with Type 11 Frame and Grate	EA	2	\$2,100.00	\$4,200.00		2	\$4,200.00	\$4,200.00
51	Manholes, 6' Dia., Type A, with Type 1 Frame and CL	EA	2	\$3,750.00	\$7,500.00		2	\$7,500.00	\$7,500.00
52	Storm Manholes to be Reconstructed, Special	EA	2	\$1,500.00	\$3,000.00		2	\$3,000.00	\$0.00
53	Storm Manholes to be Adjusted	EA	9	\$375.00	\$3,375.00		9	\$3,375.00	\$1,875.00
54	Storm Manholes to be Adjusted, Special	EA	2	\$525.00	\$1,050.00		2	\$1,050.00	\$525.00
55	Inlets to be Adjusted, Special	EA	3	\$425.00	\$1,275.00		3	\$1,275.00	\$1,700.00
56	Valve Vaults to be Adjusted, Special	EA	3	\$525.00	\$1,575.00		3	\$1,575.00	\$1,050.00
57	Valve Boxes to be Adjusted, Special	EA	4	\$275.00	\$1,100.00		4	\$1,100.00	\$275.00
58	Sanitary Manholes to be Adjusted, Special <i>CHG ORD # 10</i>	EA	18	\$1,000.00	\$18,000.00	-1	17	\$17,000.00	\$6,000.00
59	Sanitary Manholes to be Adjusted w/ New Frame & SSL, Special	EA	8	\$1,275.00	\$10,200.00		8	\$10,200.00	\$11,475.00
60	Sanitary Manholes to be Reconstructed, Special <i>CHG ORD # 10</i>	EA	7	\$2,000.00	\$14,000.00	1	8	\$16,000.00	\$16,000.00
61	Sanitary Manholes, 4' Dia., Ty A, with Ty 1 Frame And SSL	EA	4	\$6,500.00	\$26,000.00		4	\$26,000.00	\$0.00
62	New Type 1 Frame and SSL	EA	6	\$275.00	\$1,650.00		6	\$1,650.00	\$2,200.00
63	Structures to be Cleaned	EA	7	\$300.00	\$2,100.00		7	\$2,100.00	\$1,500.00
64	Storm Sewer Removal	FT	152	\$4.00	\$608.00		152	\$608.00	\$468.00
65	Sanitary Sewer Removal	FT	40	\$4.00	\$160.00		40	\$160.00	\$56.00
66	Sanitary Sewer, 12" D.I.P., CL-52, Special	FT	40	\$120.00	\$4,800.00		40	\$4,800.00	\$1,680.00
67	Sanitary Service Repair, 6" DIP, CL-52, with Fittings	FT	580	\$40.00	\$23,200.00		580	\$23,200.00	\$9,200.00
68	Sanitary Lateral Encasement	EA	6	\$500.00	\$3,000.00		6	\$3,000.00	\$0.00
69	Removing Inlets <i>CHG ORD # 5 & 7</i>	EA	19	\$50.00	\$950.00	2	21	\$1,050.00	\$900.00
70	Removing Storm Manholes and Catch Basins	EA	8	\$275.00	\$2,200.00		8	\$2,200.00	\$2,750.00
71	Removing Sanitary Manholes	EA	4	\$275.00	\$1,100.00		4	\$1,100.00	\$0.00
72	Comb. Concrete Curb and Gutter, Type B 6.12	FT	2,081	\$16.00	\$33,296.00	262	2,343	\$37,488.00	\$37,488.00
73	Comb. Concrete Curb and Gutter, Special	FT	98	\$30.00	\$2,940.00	-98	0	\$0.00	\$0.00
74	Mobilization	LS	1	\$25,000.00	\$25,000.00		1	\$25,000.00	\$25,000.00

75	Traffic Control and Protection	LS	1	\$67,700.00	\$67,700.00		1
76	Changeable Message Boards	CM	1	\$3,500.00	\$3,500.00		1
77	Railroad Protective Liability Insurance	LS	1	\$5,000.00	\$5,000.00		1
78	Railroad Flaggers	LS	1	\$4,000.00	\$4,000.00		1
79	Thermoplastic Pavement Marking Line - 4"	FT	1,420	\$0.80	\$1,136.00		1,420
80	Thermoplastic Pavement Marking Line - 6"	FT	730	\$1.25	\$912.50		730
81	Thermoplastic Pavement Marking Line - 12"	FT	224	\$2.50	\$560.00		224
82	Thermoplastic Pavement Marking Line - 16"	FT	100	\$3.35	\$335.00		100
83	Thermoplastic Pavement Marking Line - 24"	FT	162	\$5.00	\$810.00		162
84	Thermoplastic Pavement Marking - Letters & Symbols	SF	190	\$3.25	\$617.50		190
85	Detector Loop Removal and Replacement	FT	120	\$25.00	\$3,000.00		120
86	6" PVC C-900-75 SDR 18 Watermain	FT	263	\$34.00	\$8,942.00		263
87	8" PVC C-900-75 SDR 18 Watermain	FT	3,622	\$44.00	\$159,368.00		3,622
88	14" Steel Casing Pipe	FT	100	\$60.00	\$6,000.00		100
89	16" Steel Casing Pipe	FT	232	\$80.00	\$18,560.00		232
90	Reinforced PCC Thrust Blocks	EA	50	\$75.00	\$3,750.00		50
91	6" Pressure Connect with Tapping Valve and Sleeve	EA	8	\$4,000.00	\$32,000.00		8
92	8" Pressure Connect with Tapping Valve and Sleeve	EA	3	\$4,350.00	\$13,050.00		3
93	8" Non-Pressure Connection	EA	2	\$2,850.00	\$5,700.00		2
94	Watermain Disconnection (Cut, Cap and Block)	EA	9	\$975.00	\$8,775.00		9
95	6" RS Gate Valve	EA	8	\$775.00	\$6,200.00		8
96	8" RS Gate Valve	EA	6	\$1,200.00	\$7,200.00		6
97	6" Insert Valve	EA	10	\$5,500.00	\$55,000.00	-2	8
98	48" Dia., Type A Valve Vault with Fr. and Lid	EA	16	\$1,850.00	\$29,600.00	-2	14
99	6" Valve Box	EA	9	\$500.00	\$4,500.00	3	12
100	Valve Vault Removal	EA	8	\$300.00	\$2,400.00		8
101	Valve Box Removal	EA	5	\$100.00	\$500.00		5
102	Fire Hydrant, 6" Inlet	EA	8	\$3,000.00	\$24,000.00		8
103	Fire Hydrant Removal	EA	6	\$500.00	\$3,000.00		6
104	Water Service Connections, 1-1/2"	EA	74	\$775.00	\$57,350.00		74
105	Water Service Piping, 1-1/2" Copper, Type K	FT	1,513	\$12.00	\$18,156.00	-1513	0
106	Water Service Piping, 1-1/2" Augered Copper, Type K	FT	987	\$14.00	\$13,838.00	1513	2,480
107	Curb Stop and Box, 1-1/2"	EA	74	\$750.00	\$55,500.00		74
108	Uncontaminated Soil Certification	LS	1	\$1,500.00	\$1,500.00		1
109	PCC Driveway Pavement, 6" (& 5" Agg. Base) - Special	SY	40	\$100.00	\$4,000.00		40
110	Alternate 1, Pipe Bursting, 10" Storm Sewer	FT	567	\$80.00	\$45,360.00	-567	0
111	Alternate 1, Storm Service Reinstatement	EA	14	\$825.00	\$11,550.00	-14	0
112	Initial Storm Sewer Heavy Cleaning and Televising	LS		\$4,000.00	\$0.00	1	1
113	Point Repair #1 110-121	LS		\$3,850.00	\$0.00	1	1
114	Point Repair #2 180-190	LS		\$3,500.00	\$0.00	1	1
115	Point Repair #3 278-327	LS		\$10,770.00	\$0.00	1	1
116	Point Repair #4 0-80	LS		\$15,800.00	\$0.00	1	1
117	12" CIPP (Cast-in-Place Pipe)	LS		\$28,486.20	\$0.00	1	1
118	Lateral Reinstatement	EA		\$825.00	\$0.00	6	6
119	6" Non-Pressure Connection	EA		\$2,650.00	\$0.00	1	1
120	8" Insert Valve	EA		\$6,400.00	\$0.00	1	1
121	Tideflex Checkmate Valve 21"	EA		\$7,500.00	\$0.00	1	1
122	T&M Tunneling Under 48" Storm Sewer	LS		\$2,851.37	\$0.00	1	1
123	Connection to Storm Sewer, 8" x 10"	LS		\$2,800.00	\$0.00	1	1
124	6" Connection to MH 30+00	LS		\$750.00	\$0.00	1	1
125	6" Storm Stub to #602 County Line Road	FT		\$36.00	\$0.00	12	12
126	Inlet 3' Dia w/TY I Fr & CL	EA		\$1,745.00	\$0.00	2	2
127	PCC Base Course, Widening, Variable Depth	SY		\$34.65	\$0.00	50	125
128	Brick Paver Replacement	SY		\$90.00	\$0.00	20	20
129	New Type 11 Frame and Grate	EA		\$395.00	\$0.00	1	1
130	Driveway Surface, 5", Commercial	SY		\$50.00	\$0.00	40	40
131	New Sanitary Manhole Lids, TY S.S.L.	EA		\$155.00	\$0.00	6	6
132	Storm Sewer, 21"	LF		\$115.00	\$0.00	6	6
SUBTOTAL				\$1,889,739.50		\$1,939,585	
LESS 0% RETAINAGE							
LESS PREVIOUS PAYMENTS							
TOTAL							

PAY REQUEST NO. 7, FINAL
2013 STREET IMPROVEMENTS - RESURFACING (#1542)
VILLAGE OF HINSDALE

10/25/2013 BY: EA			ITEM DESCRIPTION		UNITS	AWARDED AMOUNTS		ADJUSTED APPROVED AMOUNTS		CONSTRUCTED QUANTITIES		HIN-01	
NO.						AWARDED QUANTITY	UNIT PRICE	EXTENDED PRICE	ADD / DEDUCT QUANTITIES	TOTAL APPROVED	EXTENDED PRICE	CONSTRUCTED QUANTITY	EXTENDED PRICE
1	Trench Backfill, (CA-7)				CY	5,178	\$32.00	\$165,696.00	15	5,193	\$166,176.00	4,278.49	\$136,911.68
2	Earth Excavation				CY	50	\$30.00	\$1,500.00		50	\$1,500.00	1.3	\$39.00
3	Topsoil Furnish and Place, 6"				SY	5,335	\$5.00	\$26,675.00		5,460	\$27,300.00	2,800	\$14,000.00
4	Sodding				SY	5,335	\$4.00	\$21,340.00	125	5,460	\$21,840.00	2,800	\$11,200.00
5	Supplemental Waterings				UN	80	\$5.00	\$400.00		80	\$400.00	0	\$0.00
6	Inlet and Pipe Protection				EA	43	\$105.00	\$4,515.00		43	\$4,515.00	27	\$2,835.00
7	Tree Protection Fencing				FT	4,163	\$2.45	\$10,199.35	40	4,203	\$10,297.35	2,269	\$5,559.05
8	Root Pruning				FT	240	\$3.30	\$792.00		240	\$792.00	61	\$201.30
9	Aggregate Base Course, Type B, 6" CHG ORD # 8				SY	4,374	\$5.25	\$22,963.50		4,374	\$22,963.50	3,584	\$18,816.00
10	Aggregate Base Course, Type B, 12"				SY	230	\$10.50	\$2,415.00		230	\$2,415.00	218	\$2,289.00
11	Aggregate for Temporary Access				TN	2,031	\$10.50	\$21,325.50		2,031	\$21,325.50	2,123	\$22,291.50
12	Temporary Ramp (HMA at Sidewalks)				SY	50	\$24.00	\$1,200.00		50	\$1,200.00	0	\$0.00
13	HMA Base Course, 6-1/2" (in Two Lifts)				SY	4,374	\$41.00	\$179,334.00		4,374	\$179,334.00	3,584	\$146,944.00
14	HMA Binder Course, IL 19.0, N50, 2-1/2" (3" on The Lane)				TN	674	\$66.00	\$44,484.00		674	\$44,484.00	555	\$36,630.00
15	Mixture for Cracks, Joints and Flangeways				TN	15	\$100.00	\$1,500.00		15	\$1,500.00	0	\$0.00
16	Bituminous Material, Prime Coat				GL	6,407	\$0.05	\$320.35		6,407	\$320.35	2,400	\$120.00
17	Aggregate, Prime Coat				TN	70	\$5.00	\$350.00		70	\$350.00	11	\$55.00
18	Leveling Binder (Machine Method), N60, 3/4"				TN	549	\$76.50	\$41,998.50		549	\$41,998.50	482.98	\$36,947.97
19	HMA Surface Course, Mix D, N50, 2"				TN	2,461	\$68.00	\$167,348.00		2,461	\$167,348.00	2,296.13	\$156,136.84
20	HMA Surface Course, Mix D, N50, Driveways, 3" (& 6" Agg Base)				SY	165	\$30.00	\$4,950.00	20	185	\$5,550.00	92	\$2,760.00
21	PCC Driveway Pavement, 6" (& 5" Agg. Base)				SY	50	\$70.00	\$3,500.00	-13	37	\$2,590.00	37	\$2,590.00
22	PCC Sidewalk, 5" (6" at Driveways)				SF	5,373	\$4.60	\$24,715.80	724	6,097	\$28,046.20	6,202	\$28,529.20
23	Detectable Warnings				SF	528	\$26.00	\$13,728.00	38	566	\$14,716.00	576	\$14,976.00
24	HMA Surface Removal, 2"				SY	10,073	\$2.90	\$29,211.70		10,073	\$29,211.70	11,048	\$32,039.20
25	HMA Surface Removal, 3"				SY	11,273	\$3.60	\$40,582.80		11,273	\$40,582.80	10,298	\$37,072.80
26	Pavement Removal				SY	4,974	\$3.00	\$14,922.00		4,974	\$14,922.00	3,802	\$11,406.00
27	Driveway Pavement Removal				SY	235	\$9.00	\$2,115.00	7	242	\$2,178.00	169	\$1,521.00
28	Butt Joints				SY	616	\$9.50	\$5,852.00		616	\$5,852.00	616	\$5,852.00
29	Combination Curb and Gutter Removal				FT	2,179	\$4.00	\$8,716.00	164	2,343	\$9,372.00	2,343	\$9,372.00
30	Sidewalk Removal				SF	5,373	\$1.00	\$5,373.00	672	6,045	\$6,045.00	6,150	\$6,150.00
31	Strip Reflective Crack Control Treatment CHG ORD # 8				FT	3,902	\$2.00	\$7,804.00	5200	9,102	\$18,204.00	7,928	\$15,856.00
32	Area Reflective Crack Control Treatment CHG ORD # 8				SY	3,650	\$2.00	\$7,300.00	-3650	0	\$0.00	0	\$0.00
33	Storm Sewers, Watermain Quality Pipe, 8"				FT	87	\$38.00	\$3,306.00		87	\$3,306.00	143	\$5,434.00
34	Storm Sewers, Watermain Quality Pipe, 12"				FT	82	\$48.00	\$3,936.00		82	\$3,936.00	119	\$5,712.00
35	Storm Sewers, Type 2, Class IV, 12" RCP, Rubber Gasketed				FT	6	\$40.00	\$240.00		6	\$240.00	0	\$0.00
36	Storm Sewers, Type 2, Class IV, 18" RCP, Rubber Gasketed				FT	1,284	\$48.00	\$61,632.00		1,284	\$61,632.00	1,302	\$62,496.00
37	PRC Flared End Section, 18" with Grate				EA	1	\$750.00	\$750.00		1	\$750.00	1	\$750.00
38	Tideflex Checkmate Valve, 8"				EA	1	\$1,500.00	\$1,500.00		1	\$1,500.00	1	\$1,500.00
39	Tideflex Checkmate Valve, 15"			CHG ORD # 2	EA	1	\$4,000.00	\$4,000.00	-1	0	\$0.00	0	\$0.00
40	Tideflex Checkmate Valve, 18"				EA	1	\$4,500.00	\$4,500.00		1	\$4,500.00	1	\$4,500.00
41	Inlets, 2' Dia., Type A, with Type 11 Frame and Grate CHG ORD # 5				EA	9	\$1,400.00	\$12,600.00		9	\$12,600.00	9	\$12,600.00
42	Catch Basin, 2' Dia., Type C, with Type 1 Frame and OL				EA	2	\$1,475.00	\$2,950.00		2	\$2,950.00	2	\$2,950.00
43	Catch Basin, 2' Dia., Type C, with Type 8 Grate				EA	1	\$1,275.00	\$1,275.00		1	\$1,275.00	1	\$1,275.00
44	Catch Basin, 2' Dia., Type C, with Type 11 Frame and Grate				EA	8	\$1,675.00	\$13,400.00		8	\$13,400.00	8	\$13,400.00
45	Catch Basin, 4' Dia., Special #1, with Type 1 Frame and CL				EA	1	\$3,000.00	\$3,000.00		1	\$3,000.00	1	\$3,000.00
46	Catch Basin, 4' Dia., Type A, with Type 11 Frame and Grate				EA	1	\$1,975.00	\$1,975.00		1	\$1,975.00	1	\$1,975.00
47	Catch Basin, 5' Dia., Type A with Type 1 Frame and CL (Conflict)				EA	1	\$2,400.00	\$2,400.00		1	\$2,400.00	1	\$2,400.00
48	Manholes, 4' Dia., Type A, with Type 1 Frame and CL				EA	6	\$2,000.00	\$12,000.00		6	\$12,000.00	6	\$12,000.00
49	Manholes, 4' Dia., Type A, with Type 8 Grate				EA	1	\$1,800.00	\$1,800.00		1	\$1,800.00	1	\$1,800.00
50	Manholes, 4' Dia., Type A, with Type 11 Frame and Grate				EA	2	\$2,100.00	\$4,200.00		2	\$4,200.00	2	\$4,200.00
51	Manholes, 6' Dia., Type A, with Type 1 Frame and CL				EA	2	\$3,750.00	\$7,500.00		2	\$7,500.00	2	\$7,500.00
52	Storm Manholes to be Reconstructed, Special				EA	2	\$1,500.00	\$3,000.00		2	\$3,000.00	0	\$0.00
53	Storm Manholes to be Adjusted				EA	9	\$375.00	\$3,375.00		9	\$3,375.00	5	\$1,875.00
54	Storm Manholes to be Adjusted, Special				EA	2	\$525.00	\$1,050.00		2	\$1,050.00	1	\$525.00
55	Inlets to be Adjusted, Special				EA	3	\$425.00	\$1,275.00		3	\$1,275.00	4	\$1,700.00
56	Valve Vaults to be Adjusted, Special				EA	3	\$525.00	\$1,575.00		3	\$1,575.00	2	\$1,050.00
57	Valve Boxes to be Adjusted, Special				EA	4	\$275.00	\$1,100.00		4	\$1,100.00	1	\$275.00
58	Sanitary Manholes to be Adjusted, Special CHG ORD # 10				EA	18	\$1,000.00	\$18,000.00	-1	17	\$17,000.00	6	\$6,000.00
59	Sanitary Manholes to be Adjusted w/ New Frame & SSL, Special				EA	8	\$1,275.00	\$10,200.00		8	\$10,200.00	9	\$11,475.00
60	Sanitary Manholes to be Reconstructed, Special CHG ORD # 10				EA	7	\$2,000.00	\$14,000.00	1	8	\$16,000.00	8	\$16,000.00
61	Sanitary Manholes, 4' Dia., Ty A, with Ty 1 Frame And SSL				EA	4	\$6,500.00	\$26,000.00		4	\$26,000.00	0	\$0.00
62	New Type 1 Frame and SSL				EA	6	\$275.00	\$1,650.00		6	\$1,650.00	8	\$2,200.00
63	Structures to be Cleaned				EA	7	\$300.00	\$2,100.00		7	\$2,100.00	5	\$1,500.00
64	Storm Sewer Removal				FT	152	\$4.00	\$608.00		152	\$608.00	117	\$468.00
65	Sanitary Sewer Removal				FT	40	\$4.00	\$160.00		40	\$160.00	14	\$56.00
66	Sanitary Sewer, 12" D.I.P., CL-52, Special				FT	40	\$120.00	\$4,800.00		40	\$4,800.00	14	\$1,680.00
67	Sanitary Service Repair, 6" DIP, CL-52, with Fittings				FT	580	\$40.00	\$23,200.00		580	\$23,200.00	230	\$9,200.00
68	Sanitary Lateral Encasement				EA	6	\$500.00	\$3,000.00		6	\$3,000.00	0	\$0.00
69	Removing Inlets CHG ORD # 5 & 7				EA	19	\$50.00	\$950.00	2	21	\$1,050.00	18	\$900.00
70	Removing Storm Manholes and Catch Basins				EA	8	\$275.00	\$2,200.00		8	\$2,200.00	10	\$2,750.00
71	Removing Sanitary Manholes				EA	4	\$275.00	\$1,100.00		4	\$1,100.00	0	\$0.00
72	Comb. Concrete Curb and Gutter, Type B 6.12				FT	2,081	\$16.00	\$33,296.00	262	2,343	\$37,488.00	2,343	\$37,488.00
73	Comb. Concrete Curb and Gutter, Special				FT	98	\$30.00	\$2,940.00	-98	0	\$0.00	0	\$0.00
74	Mobilization				LS	1	\$25,000.00	\$25,000.00		1	\$25,000.00	1	\$25,000.00

PAY REQUEST NO. 7, FINAL
2013 STREET IMPROVEMENTS - RESURFACING (#1542)
VILLAGE OF HINSDALE

NO.	ITEM DESCRIPTION	UNITS	AWARDED AMOUNTS			ADJUSTED APPROVED AMOUNTS			CONSTRUCTED QUANTITIES		
			AWARDED QUANTITY	UNIT PRICE	EXTENDED PRICE	ADD / DEDUCT QUANTITIES	TOTAL APPROVED	EXTENDED PRICE	CONSTRUCTED QUANTITY	EXTENDED PRICE	
1	Trench Backfill, (CA-7)	CY	5,178	\$32.00	\$165,696.00	15	5,193	\$166,176.00	4,278.49	\$136,911.68	
2	Earth Excavation	CY	50	\$30.00	\$1,500.00		50	\$1,500.00	1.3	\$39.00	
3	Topsoil Furnish and Place, 6"	SY	5,335	\$5.00	\$26,675.00	125	5,460	\$27,300.00	2,800	\$14,000.00	
4	Sodding	SY	5,335	\$4.00	\$21,340.00	125	5,460	\$21,840.00	2,800	\$11,200.00	
5	Supplemental Waterings	UN	80	\$5.00	\$400.00		80	\$400.00	0	\$0.00	
6	Inlet and Pipe Protection	EA	43	\$105.00	\$4,515.00		43	\$4,515.00	27	\$2,835.00	
7	Tree Protection Fencing	FT	4,163	\$2.45	\$10,199.35	40	4,203	\$10,297.35	2,269	\$6,559.05	
8	Root Pruning	FT	240	\$3.30	\$792.00		240	\$792.00	61	\$201.30	
9	Aggregate Base Course, Type B, 6"	SY	4,374	\$5.25	\$22,963.50		4,374	\$22,963.50	3,584	\$18,616.00	
10	Aggregate Base Course, Type B, 12"	SY	230	\$10.50	\$2,415.00		230	\$2,415.00	218	\$2,289.00	
11	Aggregate for Temporary Access	TN	2,031	\$10.50	\$21,325.50		2,031	\$21,325.50	2,123	\$22,291.50	
12	Temporary Ramp (HMA at Sidewalks)	SY	50	\$24.00	\$1,200.00		50	\$1,200.00	0	\$0.00	
13	HMA Base Course, 6-1/2" (in Two Lifts)	SY	4,374	\$41.00	\$179,334.00		4,374	\$179,334.00	3,584	\$146,944.00	
14	HMA Binder Course, IL 19.0, N50, 2-1/2" (3" on The Lane)	TN	674	\$66.00	\$44,484.00		674	\$44,484.00	555	\$36,630.00	
15	Mixture for Cracks, Joints and Flangeways	TN	15	\$100.00	\$1,500.00		15	\$1,500.00	0	\$0.00	
16	Bituminous Material, Prime Coat	GL	6,407	\$0.05	\$320.35		6,407	\$320.35	2,400	\$120.00	
17	Aggregate, Prime Coat	TN	70	\$5.00	\$350.00		70	\$350.00	11	\$55.00	
18	Leveling Binder (Machine Method), N50, 3/4"	TN	549	\$76.50	\$41,998.50		549	\$41,998.50	482.98	\$36,947.97	
19	HMA Surface Course, Mix D, N50, 2"	TN	2,461	\$68.00	\$167,348.00		2,461	\$167,348.00	2,296.13	\$156,136.84	
20	HMA Surface Course, Mix D, N50, Driveways, 3" (& 6" Agg Base)	SY	165	\$30.00	\$4,950.00		165	\$4,950.00	92	\$2,760.00	
21	PGC Driveway Pavement, 6" (& 5" Agg. Base)	SY	50	\$70.00	\$3,500.00	-13	37	\$2,590.00	37	\$2,590.00	
22	PGC Sidewalk, 5" (6" at Driveways)	SF	5,373	\$4.60	\$24,715.80	724	6,097	\$28,046.20	6,202	\$28,529.20	
23	Detectable Warnings	SF	528	\$26.00	\$13,728.00	38	566	\$14,716.00	576	\$14,976.00	
24	HMA Surface Removal, 2"	SY	10,073	\$2.90	\$29,211.70		10,073	\$29,211.70	11,048	\$32,039.20	
25	HMA Surface Removal, 3"	SY	11,273	\$3.60	\$40,582.80		11,273	\$40,582.80	10,298	\$37,072.80	
26	Pavement Removal	SY	4,974	\$3.00	\$14,922.00		4,974	\$14,922.00	3,802	\$11,406.00	
27	Driveway Pavement Removal	SY	235	\$9.00	\$2,115.00	7	242	\$2,178.00	169	\$1,521.00	
28	Butt Joints	SY	616	\$9.50	\$5,852.00		616	\$5,852.00	616	\$5,852.00	
29	Combination Curb and Gutter Removal	FT	2,179	\$4.00	\$8,716.00	164	2,343	\$9,372.00	2,343	\$9,372.00	
30	Sidewalk Removal	SF	5,373	\$1.00	\$5,373.00	672	6,045	\$6,045.00	6,150	\$6,150.00	
31	Strip Reflective Crack Control Treatment	FT	3,902	\$2.00	\$7,804.00	5200	9,102	\$18,204.00	7,928	\$15,856.00	
32	Area Reflective Crack Control Treatment	SY	3,650	\$2.00	\$7,300.00	-3650	0	\$0.00	0	\$0.00	
33	Storm Sewers, Watermain Quality Pipe, 8"	FT	87	\$38.00	\$3,306.00		87	\$3,306.00	143	\$5,434.00	
34	Storm Sewers, Watermain Quality Pipe, 12"	FT	82	\$48.00	\$3,936.00		82	\$3,936.00	119	\$5,712.00	
35	Storm Sewers, Type 2, Class IV, 12" RCP, Rubber Gasketed	FT	6	\$40.00	\$240.00		6	\$240.00	0	\$0.00	
36	Storm Sewers, Type 2, Class IV, 18" RCP, Rubber Gasketed	FT	1,284	\$48.00	\$61,632.00		1,284	\$61,632.00	1,302	\$82,496.00	
37	PRC Flared End Section, 18" with Grate	EA	1	\$750.00	\$750.00		1	\$750.00	1	\$750.00	
38	Tideflex Checkmate Valve, 8"	EA	1	\$1,500.00	\$1,500.00		1	\$1,500.00	1	\$1,500.00	
39	Tideflex Checkmate Valve, 15"	EA	1	\$4,000.00	\$4,000.00	-1	0	\$0.00	0	\$0.00	
40	Tideflex Checkmate Valve, 18"	EA	1	\$4,500.00	\$4,500.00		1	\$4,500.00	1	\$4,500.00	
41	Inlets, 2' Dia., Type A, with Type 11 Frame and Grate	EA	9	\$1,400.00	\$12,600.00		9	\$12,600.00	9	\$12,600.00	
42	Catch Basin, 2' Dia., Type C, with Type 1 Frame and OL	EA	2	\$1,475.00	\$2,950.00		2	\$2,950.00	2	\$2,950.00	
43	Catch Basin, 2' Dia., Type C, with Type 8 Grate	EA	1	\$1,275.00	\$1,275.00		1	\$1,275.00	1	\$1,275.00	
44	Catch Basin, 2' Dia., Type C, with Type 11 Frame and Grate	EA	8	\$1,675.00	\$13,400.00		8	\$13,400.00	8	\$13,400.00	
45	Catch Basin, 4' Dia., Special #1, with Type 1 Frame and CL	EA	1	\$3,000.00	\$3,000.00		1	\$3,000.00	1	\$3,000.00	
46	Catch Basin, 4' Dia., Type A, with Type 11 Frame and Grate	EA	1	\$1,975.00	\$1,975.00		1	\$1,975.00	1	\$1,975.00	
47	Catch Basin, 5' Dia., Type A with Type 1 Frame and CL (Conflict)	EA	1	\$2,400.00	\$2,400.00		1	\$2,400.00	1	\$2,400.00	
48	Manholes, 4' Dia., Type A, with Type 1 Frame and CL	EA	6	\$2,000.00	\$12,000.00		6	\$12,000.00	6	\$12,000.00	
49	Manholes, 4' Dia., Type A, with Type 8 Grate	EA	1	\$1,800.00	\$1,800.00		1	\$1,800.00	1	\$1,800.00	
50	Manholes, 4' Dia., Type A, with Type 11 Frame and Grate	EA	2	\$2,100.00	\$4,200.00		2	\$4,200.00	2	\$4,200.00	
51	Manholes, 6' Dia., Type A, with Type 1 Frame and CL	EA	2	\$3,750.00	\$7,500.00		2	\$7,500.00	2	\$7,500.00	
52	Storm Manholes to be Reconstructed, Special	EA	2	\$1,500.00	\$3,000.00		2	\$3,000.00	0	\$0.00	
53	Storm Manholes to be Adjusted	EA	9	\$375.00	\$3,375.00		9	\$3,375.00	5	\$1,875.00	
54	Storm Manholes to be Adjusted, Special	EA	2	\$525.00	\$1,050.00		2	\$1,050.00	1	\$525.00	
55	Inlets to be Adjusted, Special	EA	3	\$425.00	\$1,275.00		3	\$1,275.00	4	\$1,700.00	
56	Valve Vaults to be Adjusted, Special	EA	3	\$525.00	\$1,575.00		3	\$1,575.00	2	\$1,050.00	
57	Valve Boxes to be Adjusted, Special	EA	4	\$275.00	\$1,100.00		4	\$1,100.00	1	\$275.00	
58	Sanitary Manholes to be Adjusted, Special	EA	18	\$1,000.00	\$18,000.00	-1	17	\$17,000.00	6	\$6,000.00	
59	Sanitary Manholes to be Adjusted w/ New Frame & SSL, Special	EA	8	\$1,275.00	\$10,200.00		8	\$10,200.00	9	\$11,475.00	
60	Sanitary Manholes to be Reconstructed, Special	EA	7	\$2,000.00	\$14,000.00	1	8	\$16,000.00	8	\$16,000.00	
61	Sanitary Manholes, 4' Dia., Ty A, with Ty 1 Frame And SSL	EA	4	\$6,500.00	\$26,000.00		4	\$26,000.00	0	\$0.00	
62	New Type 1 Frame and SSL	EA	6	\$275.00	\$1,650.00		6	\$1,650.00	8	\$2,200.00	
63	Structures to be Cleaned	EA	7	\$300.00	\$2,100.00		7	\$2,100.00	5	\$1,500.00	
64	Storm Sewer Removal	FT	152	\$4.00	\$608.00		152	\$608.00	117	\$468.00	
65	Sanitary Sewer Removal	FT	40	\$4.00	\$160.00		40	\$160.00	14	\$56.00	
66	Sanitary Sewer, 12" D.I.P., CL-52, Special	FT	40	\$120.00	\$4,800.00		40	\$4,800.00	14	\$1,680.00	
67	Sanitary Service Repair, 6" DIP, CL-52, with Fittings	FT	580	\$40.00	\$23,200.00		580	\$23,200.00	230	\$9,200.00	
68	Sanitary Lateral Encasement	EA	6	\$500.00	\$3,000.00		6	\$3,000.00	0	\$0.00	
69	Removing Inlets	EA	19	\$50.00	\$950.00	2	21	\$1,050.00	18	\$900.00	
70	Removing Storm Manholes and Catch Basins	EA	8	\$275.00	\$2,200.00		8	\$2,200.00	10	\$2,750.00	
71	Removing Sanitary Manholes	EA	4	\$275.00	\$1,100.00		4	\$1,100.00	0	\$0.00	
72	Comb. Concrete Curb and Gutter, Type B 6.12	FT	2,081	\$16.00	\$33,296.00	262	2,343	\$37,488.00	2,343	\$37,488.00	
73	Comb. Concrete Curb and Gutter, Special	FT	98	\$30.00	\$2,940.00	-98	0	\$0.00	0	\$0.00	
74	Mobilization	LS	1	\$25,000.00	\$25,000.00		1	\$25,000.00	1	\$25,000.00	

12/5/2013
BY: EJ

HIN-49

75	Traffic Control and Protection	LS	1	\$67,700.00	\$67,700.00			1	\$67,700.00	1.00	\$67,700.00
76	Changeable Message Boards	CM	1	\$3,500.00	\$3,500.00			1	\$3,500.00	1.27	\$4,445.00
77	Railroad Protective Liability Insurance	LS	1	\$5,000.00	\$5,000.00			1	\$5,000.00	1	\$5,000.00
78	Railroad Flaggers	LS	1	\$4,000.00	\$4,000.00			1	\$4,000.00	1	\$4,000.00
79	Thermoplastic Pavement Marking Line - 4"	FT	1,420	\$0.80	\$1,136.00			1,420	\$1,136.00	1,257	\$1,005.60
80	Thermoplastic Pavement Marking Line - 6"	FT	730	\$1.25	\$912.50			730	\$912.50	690	\$862.50
81	Thermoplastic Pavement Marking Line - 12"	FT	224	\$2.50	\$560.00			224	\$560.00	234	\$585.00
82	Thermoplastic Pavement Marking Line - 16"	FT	100	\$3.35	\$335.00			100	\$335.00	84	\$281.40
83	Thermoplastic Pavement Marking Line - 24"	FT	162	\$5.00	\$810.00			162	\$810.00	204	\$1,020.00
84	Thermoplastic Pavement Marking - Letters & Symbols	SF	190	\$3.25	\$617.50			190	\$617.50	212	\$689.00
85	Detector Loop Removal and Replacement	FT	120	\$25.00	\$3,000.00			120	\$3,000.00	116	\$2,900.00
86	6" PVC C-900-75 SDR 18 Watermain	FT	263	\$34.00	\$8,942.00			263	\$8,942.00	220	\$7,480.00
87	8" PVC C-900-75 SDR 18 Watermain	FT	3,622	\$44.00	\$159,368.00			3,622	\$159,368.00	3,642	\$160,248.00
88	14" Steel Casing Pipe	FT	100	\$60.00	\$6,000.00			100	\$6,000.00	92	\$5,520.00
89	16" Steel Casing Pipe	FT	232	\$80.00	\$18,560.00			232	\$18,560.00	220	\$17,600.00
90	Reinforced PCC Thrust Blocks	EA	50	\$75.00	\$3,750.00			50	\$3,750.00	46	\$3,450.00
91	6" Pressure Connect with Tapping Valve and Sleeve	EA	8	\$4,000.00	\$32,000.00			8	\$32,000.00	8	\$32,000.00
92	8" Pressure Connect with Tapping Valve and Sleeve	EA	3	\$4,350.00	\$13,050.00			3	\$13,050.00	1	\$4,350.00
93	8" Non-Pressure Connection	EA	2	\$2,850.00	\$5,700.00			2	\$5,700.00	2	\$5,700.00
94	Watermain Disconnection (Cut, Cap and Block)	EA	9	\$975.00	\$8,775.00			9	\$8,775.00	9	\$8,775.00
95	6" RS Gate Valve	EA	8	\$775.00	\$6,200.00			8	\$6,200.00	8	\$6,200.00
96	8" RS Gate Valve	EA	6	\$1,200.00	\$7,200.00			6	\$7,200.00	8	\$9,600.00
97	6" Insert Valve	EA	10	\$5,500.00	\$55,000.00	-2		8	\$44,000.00	8	\$44,000.00
98	48" Dia., Type A Valve Vault with Fr. and Lid	EA	16	\$1,850.00	\$29,600.00	-2		14	\$25,900.00	13	\$24,050.00
99	6" Valve Box	EA	9	\$500.00	\$4,500.00	3		12	\$6,000.00	12	\$6,000.00
100	Valve Vault Removal	EA	8	\$300.00	\$2,400.00			8	\$2,400.00	7	\$2,100.00
101	Valve Box Removal	EA	5	\$100.00	\$500.00			5	\$500.00	2	\$200.00
102	Fire Hydrant, 6" Inlet	EA	8	\$3,000.00	\$24,000.00			8	\$24,000.00	8	\$24,000.00
103	Fire Hydrant Removal	EA	6	\$500.00	\$3,000.00			6	\$3,000.00	6	\$3,000.00
104	Water Service Connections, 1-1/2"	EA	74	\$775.00	\$57,350.00			74	\$57,350.00	75	\$58,125.00
105	Water Service Piping, 1-1/2" Copper, Type K	FT	1,513	\$12.00	\$18,156.00	-1513		0	\$0.00	0	\$0.00
106	Water Service Piping, 1-1/2" Augered Copper, Type K	FT	967	\$14.00	\$13,538.00	1513		2,480	\$34,720.00	2,369	\$33,166.00
107	Curb Stop and Box, 1-1/2"	EA	74	\$750.00	\$55,500.00			74	\$55,500.00	72	\$54,000.00
108	Uncontaminated Soil Certification	LS	1	\$1,500.00	\$1,500.00			1	\$1,500.00	1	\$1,500.00
109	PCC Driveway Pavement, 6" (& 5" Agg. Base) - Special	SY	40	\$100.00	\$4,000.00			40	\$4,000.00	0	\$0.00
110	Alternate 1, Pipe Bursting, 10" Storm Sewer	FT	567	\$80.00	\$45,360.00	-567		0	\$0.00	0	\$0.00
111	Alternate 1, Storm Service Reinstatement	EA	14	\$825.00	\$11,550.00	-14		0	\$0.00	0	\$0.00
112	Initial Storm Sewer Heavy Cleaning and Televising	LS		\$4,000.00	\$0.00	1		1	\$4,000.00	1	\$4,000.00
113	Point Repair #1 110-121	LS		\$3,850.00	\$0.00	1		1	\$3,850.00	1	\$3,850.00
114	Point Repair #2 180-190	LS		\$3,500.00	\$0.00	1		1	\$3,500.00	1	\$3,500.00
115	Point Repair #3 278-327	LS		\$10,770.00	\$0.00	1		1	\$10,770.00	1	\$10,770.00
116	Point Repair #4 0-80	LS		\$15,800.00	\$0.00	1		1	\$15,800.00	1	\$15,800.00
117	12" CIPP (Cast-in-Place Pipe)	LS		\$28,486.20	\$0.00	1		1	\$28,486.20	1	\$28,486.20
118	Lateral Reinstatement	EA		\$825.00	\$0.00	6		6	\$4,950.00	5	\$4,125.00
119	6" Non-Pressure Connection	EA		\$2,650.00	\$0.00	1		1	\$2,650.00	1	\$2,650.00
120	8" Insert Valve	EA		\$6,400.00	\$0.00	1		1	\$6,400.00	1	\$6,400.00
121	Tideflex Checkmate Valve 21"	EA		\$7,500.00	\$0.00	1		1	\$7,500.00	1	\$7,500.00
122	T&M Tunneling Under 48" Storm Sewer	LS		\$2,851.37	\$0.00	1		1	\$2,851.37	1	\$2,851.37
123	Connection to Storm Sewer, 8" x 10"	LS		\$2,800.00	\$0.00	1		1	\$2,800.00	1	\$2,800.00
124	6" Connection to MH 30+00	LS		\$750.00	\$0.00	1		1	\$750.00	1	\$750.00
125	6" Storm Stub to #602 County Line Road	FT	14	\$36.00	\$0.00	12		12	\$432.00	12	\$432.00
126	Inlet 3' Dia w/TTY I Fr & CL	EA		\$1,745.00	\$0.00	2		2	\$3,490.00	2	\$3,490.00
127	PCC Base Course, Widening, Variable Depth	SY		\$34.65	\$0.00	50		125	\$4,331.25	52	\$1,801.80
128	Brick Paver Replacement	SY		\$90.00	\$0.00	20		20	\$1,800.00	18	\$1,620.00
129	New Type 11 Frame and Grate	EA		\$395.00	\$0.00	1		1	\$395.00	1	\$395.00
130	Driveway Surface, 5", Commercial	SY		\$50.00	\$0.00	40		40	\$2,000.00	40	\$2,000.00
131	New Sanitary Manhole Lids, TY S.S.L.	EA		\$155.00	\$0.00	6		6	\$930.00	6	\$930.00
132	Storm Sewer, 21"	LF		\$115.00	\$0.00	6		6	\$690.00	6	\$690.00
SUBTOTAL				\$1,889,739.50	\$1,939,585.72	\$1,727,128.41					
LESS 0% RETAINAGE						\$0.00					
LESS PREVIOUS PAYMENTS						\$1,550,766.97					
TOTAL						\$176,361.44					

DATE: January 13, 2014

REQUEST FOR BOARD ACTION

AGENDA	ORIGINATING
SECTION NUMBER Board of Trustees Item	DEPARTMENT Community Development
ITEM North Madison Drainage Project	APPROVAL Daniel M. Deeter Village Engineer

On 11/20/13 Request For Proposals (RFP) for design services for the North Madison Drainage Project were sent to seven engineering consultants with satisfactory relationships with the Village in accordance with 50 ILCS 510, section 5. The RFP application period ended 12/18/13 and the proposals received were evaluated against the RFP requirements.


The seven engineering consultants were asked to provide proposals for design and construction observation services. These consultants are: Christopher B. Burke Engineering, Ltd.; ERA Consultants, Inc.; HR Green, Inc.; James J. Benes & Associates, Inc.; Rempe-Sharpe & Associates, Inc.; Primera Engineers, Ltd.; and RJN Group. Five consultants provided proposals which are attached. After reviewing the proposals, staff is recommending Christopher B. Burke Engineering, Inc. as the best qualified consultant to provide the design services. Christopher B. Burke Engineering, Inc. has a significant amount of expertise concerning stormwater design within DuPage County and, specifically, in the Salt Creek watershed. Design services will cost \$43,616. Total engineering services will cost \$67,616. Initial staff estimates of the project cost is \$365,000.

The project is designed to restore the drainage capability of the low point in the 400/500-block of North Madison to the 1975 design standard by constructing a storm water pumping station and force main with back-up power provided by a trailer mounted generator.

The design phase is anticipated to occur in the first half of 2014 with construction in the second half of 2014.

Should the Committee concur with this recommendation, the following motion would be appropriate:

Motion: To Award the Engineering Services for the Design of the North Madison Drainage Project to Christopher B. Burke Engineering, Ltd. in the Amount Not to Exceed \$43,616.00.

APPROVAL 	APPROVAL	APPROVAL	APPROVAL	MANAGER'S APPROVAL
COMMITTEE ACTION:				
BOARD ACTION:				

North Madison Drainage Project
Hinsdale, IL
Subject: Proposals for Engineering Services
Date: 01/13/14

Design	CBBEL		HR Green		RIN Group		Primera		James J. Benes	
	Services/Hrs	Cost	Services/Hrs	Cost	Services/Hrs	Cost	Services/Hrs	Cost	Services/Hrs	Cost
Scope: Stormwater lift station including a wet well, two variable speed pumps, plumbing/controls, trailer mounted generator, and a force main.										
Alternate Force Main Routing analysis and comparison										
Topo survey	Y	\$ 4,116	Y	\$ 6,620	Y	\$ 4,000	Y	\$ 2,500	Y	
Plat of Easement	Y	\$ 3,500	Y		Y	\$ 5,220	Y		ID	
Soil Borings	N		N		N				Y	
Geotechnical Consultation	Y	\$ 500	Y	\$ 1,680	Y				Y	
SWMM Modeling - existing conditions	Y	\$ 9,500	Y	\$ 10,600	Y	\$ 7,080	Y	\$ 4,000	Y	\$ 49,602
SWMM Modeling - proposed conditions	Y		Y		Y		Y		Y	
Pump Station Design 2.3 cfs present, 4 cfs future	Y	\$ 10,000	Y		Y		Y		Y	
Force Main Design	Y	\$ 5,000	Y	\$ 35,968	Y	\$ 37,160	Y	\$ 13,800		\$ 63,842
Storm Sewer System Improvements Design	Y	\$ 5,000	Y		Y		Y			
Permitting	Y	\$ 2,500	Y	\$ 2,200	Y	\$ 2,870	Y		Y	
CCDD Certification			Y	\$ 1,040	Y	\$ 685	Y			
Engineer's Opinion of Construction Costs (EOPCC)	Y	\$ 1,000	Y		Y	\$ 1,455	Y	\$ 1,900	Y	
Bidding Assistance	Y	\$ 2,500	Y	\$ 6,544	Y	\$ 2,645	Y			
Sub-total		\$ 43,616		\$ 64,652		\$ 61,115		\$ 22,200		\$ 113,444
Construction Observation										
Construction Administration Services/Resident Engr. ¹	160	\$ 24,000		\$ 35,056	240	\$ 33,525	Y	\$ 38,700		\$ 53,136
Record Drawings	Y		Y		Y	\$ 2,310	Y	\$ 700		
TOTAL		\$ 67,616		\$ 99,708		\$ 96,950		\$ 61,600		\$ 166,580

Notes:
1. CBBEL assumes 6-8 weeks construction.
HR Green assumes 25 working days construction.



CHRISTOPHER B. BURKE ENGINEERING, LTD.

9575 W. Higgins Road, Suite 600 Rosemont, Illinois 60018-4920 TEL (847) 823-0500 FAX (847) 823-0520

December 18, 2013

Village of Hinsdale
19 East Chicago Avenue
Hinsdale, IL 60521-3489

Attention: Mr. Dan Deeter, PE
Village Engineer

Subject: **PROPOSAL FOR PROFESSIONAL ENGINEERING SERVICES**
2013 North Madison Drainage Project
Request for Proposal No. 04-2013

Dear Dan:

Christopher B. Burke Engineering, Ltd. (CBBEL) is pleased to submit this proposal for professional engineering services for the 2013 North Madison Drainage Project. Included in this proposal is our Understanding of the Assignment, Scope of Services and Estimate of Fee.

UNDERSTANDING OF THE ASSIGNMENT

It is our understanding that the Village of Hinsdale would like design engineering and construction observation services for a proposed storm water lift station and force main in the 400/500 block of North Madison Street. The area in the vicinity of the 400/500 block of North Madison forms an isolated low point with an approximate 20 acre tributary area. A 15-inch storm sewer drains this area to the west and north.

Portions of the storm sewer system have become backpitched due to the presence of peat below the low point on Madison. This has caused more frequent ponding and increased ponding depths during larger storms. Since restoration of the 15-inch pipe is not appropriate due to the disruption of resident's yards during construction, the Village would like to have a consultant design a storm water lift station and force main including wet well, two variable speed pumps, plumbing and controls, and back-up trailer mounted generator.

SCOPE OF SERVICES

Task 1 – Topographic Survey: The survey will be used as a base map for design purposes. The limits of work will include full topographic survey from the centerline of roadway to the westerly right-of-way of North Madison Street, and all side yard/rear yard areas along proposed force main location (see attached limit of work exhibit). Included are the following survey tasks:

- ❖ Horizontal Control: Utilizing state plane coordinates, CBBEL will set recoverable primary control utilizing NAD '83 IL. EAST SPC Horizontal Datum.
- ❖ Vertical Control: CBBEL will perform a level circuit throughout the entire length of the project establishing benchmarks and assigning elevations to the horizontal control points. The elevations will be based on NAVD '88 Vertical Datum.
- ❖ Topographic Survey: CBBEL will field locate all pavements, driveways, curb and gutters, signs, manholes, utility vaults, drainage structures, driveway culverts, cross road culverts, etc.
- ❖ Cross-Sections: CBBEL will survey cross-sections of the roadway at 50' intervals along approximately 900' (LF) of proposed force main. CBBEL will also survey cross-sections at all driveways, railroad crossings, and other grade controlling features.
- ❖ Utility Survey: CBBEL will survey all above ground utilities including, but not limited to: water, sanitary sewer, storm sewer, telephone, electric, cable and gas, etc. Identify size, type, rim, and invert elevations.
- ❖ Research at the DuPage County Recorder's Office.
- ❖ Field recon and survey to locate existing monumentation and boundary evidence.
- ❖ Analyze Record and Field Data necessary to compute approximate Right-of-Way.
- ❖ CBBEL will also obtain utility information from all known utility companies along the project corridor and include the utility information in the existing conditions base sheets developed from the above information. The base sheets will be drafted at a scale of 1"=20'.

Task 2 – Plat of Easement Preparation:

- ❖ Initial coordination with Client.
- ❖ Research at the DuPage County Recorder's Office.
- ❖ Field recon and survey to locate existing monumentation and boundary evidence.
- ❖ Office calculations and plotting of field and record data.
- ❖ CAD drafting of the Plat of Easement for the proposed easement area.
- ❖ Write legal description's for the proposed easement area.
- ❖ Final review and submittal by an Illinois Professional Land Surveyor.

Task 3 – Soil Borings: It is our understanding that soil borings have been performed and were made available as an attachment to the RFP. The information contained in the soil borings will be used in the design of the pump station and force main.

Task 4 – SWMM Modeling:

Task 4.1 – Existing Conditions SWMM Modeling: We will develop an EPA SWMM model of the existing drainage system in the study area. Specifically, the model will include the 12" storm sewer on Madison starting at Warren Court and heading south, the 15" storm sewer running through the year yards to Monroe Street, and the Monroe Street storm sewer running north to Ogden Avenue. The Ogden Avenue storm sewer will not be modeled, and a boundary condition will be assumed to represent the receiving storm sewer. We will delineate the subbasins tributary to this system and enter all storm sewer information provided by the Village atlases, etc. We will run a series of design storms and any historic storms the Village requests with the SWMM model to verify the system capacity and evaluate the draindown times of the depressional area. The deliverable for this task will be a technical memorandum summarizing the model results and any applicable exhibits.

Task 4.2 – Proposed Conditions SMMM Modeling: We will revise the existing SWMM model to reflect the proposed improvements. As specified in the RFP, the basic components of the proposed improvements have already been determined. We will evaluate two scenarios, including a 2.3 and 4 cfs capacity pump station. For each scenario, we will quantify the reduction in draindown times and peak elevation for the depressional area. The deliverable for this task will be a technical memorandum summarizing the model results and any applicable exhibits.

Task 5 – Pump Station Design: CBBEL will design an approximately 2.3 cfs storm water pump station that can accommodate an increase to 4 cfs in the future. Pump station design will include precast concrete wet well, electrical controls housed in an exterior rated weatherproof enclosure, submersible electric motor driven centrifugal pumps, standby trailer mounted electric generator, check and isolation valves, and associated discharge piping. Preliminary and final specifications and contract documents will be prepared according to IDOT's Procedural Guidelines and will include the force main design and storm sewer system improvements.

Task 6 – Force Main Design: CBBEL will design the pump station force main to discharge up to 4 cfs from the pump station. Design will include force main fittings, air release valves (if necessary) and construction details for backfill and joint restraint.

Task 7 – Storm Sewer System Improvements: CBBEL will provide the required storm sewer design plans to detail the necessary storm sewer improvements required by the design. Storm sewer design shall conform to Standard Specifications for Water and Sewer Main Construction in Illinois.

Task 8 – Permitting: CBBEL will apply for and submit applicable permits which may be required for this project.

Task 9 – Preparation of Engineer's Opinion of Probable Construction Cost: CBBEL will prepare an opinion of probable construction cost based on the design elements selected and present to the Village in spreadsheet format.

Task 10 – Bidding Assistance: CBBEL will assist the Village with solicitation of proposals, attend a pre-bid meeting, answer bidders' questions prior to bid, attend bid opening, review and tabulate bids received, and make recommendation to the Village for award.

Task 11 – Construction Observation:

Task 11.1 – Shop Drawing Review: CBBEL will provide services related to reviewing information and data submitted by the Contractor. Services will include the following:

- Log all Contractor data received and maintain a log book of shop drawings and submissions so as to track the status of submittals.
- Review Contractor's submittals for compliance with the intent of the Contract Documents.
- Prepare shop drawing review correspondence providing Contractor with our review comments and if submittals comply with intent of Contract Documents.
- Notify the Owner of deficiencies, deviations or substitutions. With the notification, provide Owner with an opinion for acceptance or denial, and request direction from the Owner regarding the deviation or substitution.
- Advise the Owner when disapprovals may be necessary due to failing to conform to the Contract Documents.
- Provide office support to the Resident Engineer related to interpretation of Contract Documents.
- Maintain office files of project correspondence.

Task 11.2 – Construction Engineering: Under this task CBBEL will provide a full-time Resident Engineer (RE). We have estimated approximately 6 – 8 weeks of construction and therefore have budgeted 160 hours of construction observation and contract administration. The RE will perform the following duties:

- When present on site, observe the progress and quality of the executed work and determine if the work is proceeding in accordance with the Contract Documents. The RE will keep the Owner informed of the progress of the work.
- Serve as the Owner's liaison with the Contractor working principally through the Contractor's field superintendent.
- Attend preconstruction conference and construction conferences. Maintain and circulate copies of meeting notes.
- Provide clarification(s) related to the intent of the Contract Documents.
- Review the Contractor's schedule at construction conferences, and compare actual progress of work to Contractor's proposed construction schedule.
- Maintain orderly files for correspondence, reports of job conferences, shop drawings and other submissions, reproductions or original Contract Documents including all addenda, change orders and additional drawings issued subsequent to the award of the contract.
- When present on site keep a report book, which shall contain, weather conditions, daily activities, job decisions and observations as well as general and specific observations

- and job progress.
- Except upon written instructions of the Owner, the Resident Engineer shall not authorize any deviation from the Contract Documents.
- Determine if the project has been completed in accordance with the Contract Documents and that the Contractor has fulfilled all of their obligations.
- CBBEL will review pay requests prepared by the Contractor and make recommendations to the Owner for payment.

Task 11.3 – Commissioning/Start-Up:

- Prior to final walk through, submit to the Contractor a list of observed items (punch list) requiring correction.
- Verify that punch list items have been addressed and corrections have been made.
- Coordinate and conduct the final walk through with the Owner, prepare a final punchlist (if required).
- Verify that all the items on the final punchlist have been corrected and make recommendations to the Owner concerning acceptance of the project.
- Attend commissioning/start-up of facility to determine equipment is operating satisfactorily as intended. Observe equipment as it is operated under normal operating conditions.

ESTIMATE OF FEE

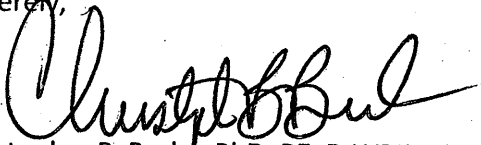
Based upon the Scope of Services presented above, we estimate the following fees:

TASK	FEE
Task 1 – Topographic Survey	\$4,116.00
Task 2 – Plat of Easement Preparation	(Per Plat) \$3,500.00
Task 3 – Soil Borings	\$500.00
Task 4 – SWMM Modeling	\$9,500.00
Task 5 – Pump Station Design	\$10,000.00
Task 6 – Force Main Design	\$5,000.00
Task 7 – Storm Sewer Design	\$5,000.00
Task 8 – Permitting	\$2,500.00
Task 9 – Preparation of Engineer's Opinion of Probable Construction Cost	\$1,000.00
Task 10 – Bidding Assistance	\$2,500.00
Subtotal Design	\$43,616.00
Task 11 – Construction Observation	\$24,000.00
TOTAL	\$67,616.00

We will bill you at the hourly rates specified on the attached Schedule of Charges and establish our contract in accordance with the attached General Terms and Conditions. Direct costs for blueprints, photocopying, mailing, overnight delivery, messenger services and report compilation are not included in the Fee Estimate. These General Terms and Conditions are expressly incorporated into and are an integral part of this contract for professional services. Please note that any requested meetings or additional services are not included in the preceding fee estimate and will be billed at the attached hourly rates.

Please sign and return one copy of this agreement as an indication of acceptance and notice to proceed. Please feel free to contact us anytime.

Sincerely,



Christopher B. Burke, PhD, PE, D.WRE, Dist.M.ASCE
President

JPC/pjb

Encl. Schedule of Charges
 General Terms and Conditions

THIS PROPOSAL, SCHEDULE OF CHARGES & GENERAL TERMS & CONDITIONS
ACCEPTED FOR THE VILLAGE OF HINSDALE

BY: _____
TITLE: _____
DATE: _____

FLOOD MITIGATION PUMP STATION

TIME PERIOD

2012 to 2013

LOCATION

Elmwood Park, Illinois

CLIENT / REFERENCE

Village of Elmwood Park
11 Conti Parkway
Elmwood Park, IL 60707

Paul Volpe
(708) 452-7300

FUNDING SOURCE

Local

CONSTRUCTION COST / FEE

\$3,600,000 / \$125,000

PROJECT TEAM

John Caruso, PE
(Project Manager/Lead Design Engineer)

Anthony DeRicco, PE, LEED AP, LC
(Electrical Engineer)

Joseph Marino, PE
(Project Engineer)

PROJECT DESCRIPTION

Design of a storm water pump station as part of a Village flood mitigation project. The design consisted of 40' x 30' x 30' deep cast-in-place concrete wet well with integrally cast valve vault, four 20", 235 Hp submersible type pumping units capable of a total station flow of 67,300 gpm (150 cfs), precast concrete 30' x 10' electrical controls building, 1600 amp motor control center, two variable frequency drives (VFDs) with reduced voltage autotransformer motor starter bypass, two solid state reduced voltage motor starters, SCADA and video surveillance.

Christopher B. Burke Engineering, Ltd. (CBBEL) designed a 1000 kW diesel engine generator to provide on-site backup electrical service to the station.

The pump station forcemain discharge piping will be installed in two phases. In this project, 1,000 feet of twin 36" fusion welded HDPE pipe will be installed. During Phase 2, 1,500 feet of twin 36" HDPE forcemain will connect the Phase 1 pump station and forcemain to the outlet structure at the Des Plaines River. During the interim condition, the pump station will discharge into a 7' diameter precast structure that is connected to an existing 30" RCP gravity storm sewer. As the discharge structure fills, it will surcharge the 30" RCP converting it into a low pressure forcemain to convey the storm water flow.

This project is part of an overall Village flood mitigation project that consists of separating 240 acres of combined sewer, installing 40,000 feet of storm sewer, a 150 cfs pump station, 14 acre-feet detention basin, 2,000 feet of flood wall, water main replacement and roadway reconstruction.

SCOPE OF SERVICES

CBBEL provided the following engineering services:

- Design and Planning
- Preparation of Contract Drawings and Documents
- Utility Coordination
- Shop Drawing Review
- Construction Observation and Contract Administration
- Pump Station Start-Up



Pump Control Building and Engine Generator



Storm Water Pumps on Shipping Skid

BERENS-MONALDI STORM WATER PUMP STATION

TIME PERIOD

2010-2013

LOCATION

Dyer, IN

CLIENT / REFERENCE

Town of Dyer
One Town Square
Dyer, IN 46311

Rick Eberly
Interim Village Administrator
(219)-865-4222

FUNDING SOURCE

Federal Grant

CONSTRUCTION COST / FEE

\$550,000 / \$50,000

PROJECT TEAM

John P. Caruso, PE
Project Manager

Joe Marino, PE
Project Engineer

Mark Kaiser, PE
Resident Engineer

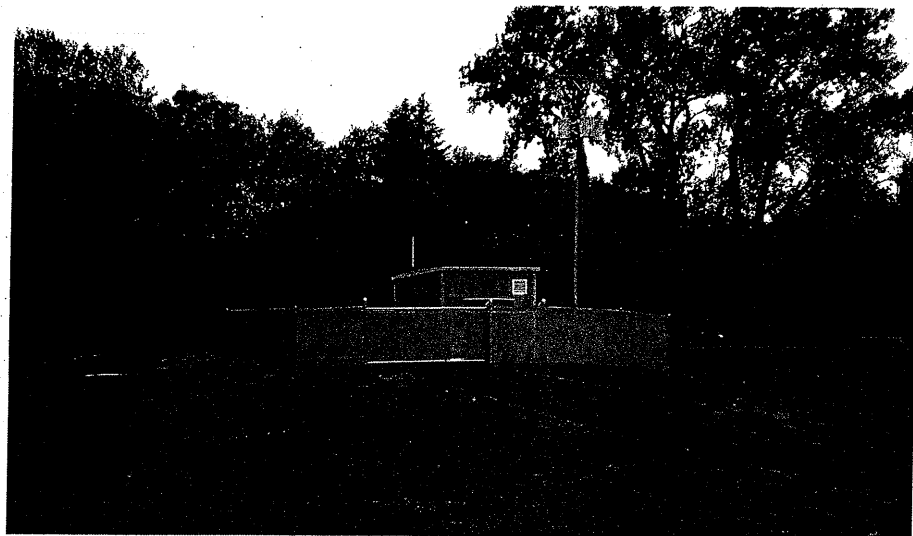
PROJECT DESCRIPTION

Design of a storm water pump station to alleviate flooding of the Berens-Monaldi Subdivision consisted of a 7' x 7' square precast diversion structure with a 48" elastomeric check valve over an existing 48" RCP storm sewer, a 9' x 9' square precast concrete wet well housing two (2) 12", 50 Hp submersible type pumps capable of pumping 5,000 gallons per minute (gpm) each, and a fiberglass reinforced stop gate to isolate the station from the system during maintenance.

The site required NIPSCO to bring 3 phase power overhead to the station as well as natural gas service. CBBEL designed a 100 kW natural gas generator to provide on-site backup electrical power to the station.

SCOPE OF SERVICES

- Design and Planning
- Preparation of Contract Drawings
- Grant Application and Submittal
- Utility Coordination
- Shop Drawing Review
- Construction Observation
- Commissioning



NOTES:

1. THE ABOVE SOIL CONDITIONS ARE FOR INFORMATIONAL PURPOSES ONLY. SEE DRILLING SETS FOR SOIL BORING LOGS. THE SOIL BORINGS NEAR THE PROPOSED DOWNGRADES WELLS WERE NOT TAKEN ALL THE WAY DOWN TO BEDROCK. THE ABOVE WELL LOG WAS COMPLETED BASED ON NEARBY SOIL BORINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING AND RECORDING THE ACTUAL SOIL CONDITIONS DURING CONSTRUCTION.

1 ANTICIPATED WELL LOG FOR SUBMERISABLE DOWNGRADES WELLS #1 & #2

NOT TO SCALE

1 ANTICIPATED WELL LOG FOR
SUBMERSIBLE DEWATERING WELL #1 & #2
NOT TO SCALE

GRAFF DRIVE STORMWATER PUMP STATION

TIME PERIOD

2008-2009

LOCATION

Rosemont, IL

CLIENT / REFERENCE

Village of Rosemont
9501 W. Devon Avenue
Rosemont, IL 60018

*Mike Raimondi,
Director of Public Works
(847) 671-4677*

FUNDING SOURCE

Local

CONSTRUCTION COST / FEE

\$560,000 / \$40,000

PROJECT TEAM

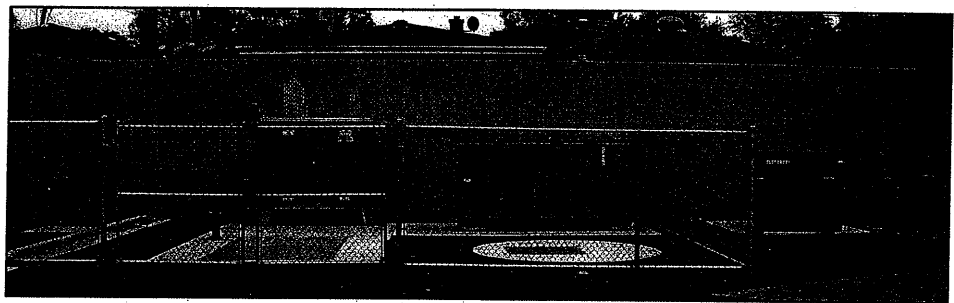
John P. Caruso, PE
Project Manager

Joe Marino, PE
Project Engineer

PROJECT DESCRIPTION

Christopher B. Burke Engineering, Ltd. (CBBEL) was retained by the Village of Rosemont to design a stormwater pump station to alleviate flooding of Graff Dr. CBBEL determined that a flow rate of 20.7 cfs was necessary to protect against a 50-yr storm. The design consisted of 6 catch basins with high capacity inlets, 48" HDPE storm sewer pipe, 380' of directionally bored 16" PVC C905 forcemain, 8' diameter precast concrete valve vault, and a 15' deep 9'x9' square precast concrete wet well housing two (2) 12", 50hp submersible type pumps capable of pumping 5,000 gallons per minute (gpm) each.

The site required ComEd to bring 3 phase power under ground to a new transformer. CBBEL designed a 100kW natural gas generator to provide on-site backup electrical service to the station. The pump controls are connected to the existing SCADA system at Rosemont Public Works.



Top: Looking South at Graff Dr., the below grade stormwater pump station, pump control panel, 100 kW natural gas generator, ComEd transformer, and Nicor gas meter.



Right: Looking Northwest on Graff Dr. 3 of the 6 catch basins with high capacity inlets sized to accommodate the large inflow of water to the site.

SCOPE OF SERVICES

CBBEL provided the following engineering services to the Village of Rosemont:

- Design and Planning
- Preparation of Contract Drawings
- Utility Coordination
- Obtaining Easements
- Shop Drawing Review
- Construction Observation

CHRISTOPHER B. BURKE ENGINEERING, LTD.
STANDARD CHARGES FOR PROFESSIONAL SERVICES
JANUARY, 2013

<u>Personnel</u>	<u>Charges*</u> <u>(\$/Hr)</u>
Principal	240
Engineer VI	210
Engineer V	173
Engineer IV	138
Engineer III	125
Engineer I/II	102
Survey V	178
Survey IV	134
Survey III	130
Survey II	100
Survey I	78
Resource Planner V	112
Resource Planner IV	108
Resource Planner III	100
Resource Planner I/II	88
Engineering Technician V	150
Engineering Technician IV	137
Engineering Technician III	112
Engineering Technician I/II	97
CAD Manager	138
Assistant CAD Manager	126
CAD II	125
CAD I	98
GIS Specialist III	120
GIS Specialist I/II	67
Landscape Architect	138
Environmental Resource Specialist V	160
Environmental Resource Specialist IV	134
Environmental Resource Specialist III	114
Environmental Resource Specialist I/II	94
Environmental Resource Technician	90
Administrative	88
Engineering Intern	53
Survey Intern	53
Information Technician III	100
Information Technician I/II	67

Direct Costs

Outside Copies, Blueprints, Messenger, Delivery Services, Mileage Cost + 12%

*Charges include overhead and profit

Christopher B. Burke Engineering, Ltd. reserves the right to increase these rates and costs by 5% after December 31, 2013.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
GENERAL TERMS AND CONDITIONS

1. Relationship Between Engineer and Client: Christopher B. Burke Engineering, Ltd. (Engineer) shall serve as Client's professional engineer consultant in those phases of the Project to which this Agreement applies. This relationship is that of a buyer and seller of professional services and as such the Engineer is an independent contractor in the performance of this Agreement and it is understood that the parties have not entered into any joint venture or partnership with the other. The Engineer shall not be considered to be the agent of the Client. Nothing contained in this Agreement shall create a contractual relationship with a cause of action in favor of a third party against either the Client or Engineer.

Furthermore, causes of action between the parties to this Agreement pertaining to acts of failures to act shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of substantial completion.

2. Responsibility of the Engineer: Engineer will strive to perform services under this Agreement in accordance with generally accepted and currently recognized engineering practices and principles, and in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinion, document, or otherwise.

Notwithstanding anything to the contrary which may be contained in this Agreement or any other material incorporated herein by reference, or in any Agreement between the Client and any other party concerning the Project, the Engineer shall not have control or be in charge of and shall not be responsible for the means, methods, techniques, sequences or procedures of construction, or the safety, safety precautions or programs of the Client, the construction contractor, other contractors or subcontractors performing any of the work or providing any of the services on the Project. Nor shall the Engineer be responsible for the acts or omissions of the Client, or for the failure of the Client, any architect, engineer, consultant, contractor or subcontractor to carry out their respective responsibilities in accordance with the Project documents, this Agreement or any other agreement concerning the Project. Any provision which purports to amend this provision shall be without effect unless it contains a reference that the content of this condition is expressly amended for the purposes described in such amendment and is signed by the Engineer.

3. Changes: Client reserves the right by written change order or amendment to make changes in requirements, amount of work, or engineering time schedule adjustments, and Engineer and Client shall negotiate appropriate adjustments acceptable to both parties to accommodate any changes, if commercially possible.
4. Suspension of Services: Client may, at any time, by written order to Engineer (Suspension of Services Order) require Engineer to stop all, or any part, of the services required by this Agreement. Upon receipt of such an order, Engineer shall immediately comply with its terms and take all reasonable steps to minimize the costs associated with the services affected by such order. Client, however, shall pay all costs incurred by the suspension, including all costs necessary to maintain continuity and for the resumptions

extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising therefrom or in connection therewith.

The Client recognizes that changes or modifications to the Engineer's instruments of professional service introduced by anyone other than the Engineer may result in adverse consequences which the Engineer can neither predict nor control. Therefore, and in consideration of the Engineer's agreement to deliver its instruments of professional service in machine readable form, the Client agrees, to the fullest extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising out of or in any way connected with the modification, misinterpretation, misuse, or reuse by others of the machine readable information and data provided by the Engineer under this Agreement. The foregoing indemnification applies, without limitation, to any use of the Project Documentation on other projects, for additions to this Project, or for completion of this Project by others, excepting only such use as may be authorized, in writing, by the Engineer.

7. Reuse of Documents: All Project Documents including but not limited to reports, opinions of probable costs, drawings and specifications furnished by Engineer pursuant to this Agreement are intended for use on the Project only. They cannot be used by Client or others on extensions of the Project or any other project. Any reuse, without specific written verification or adaptation by Engineer, shall be at Client's sole risk, and Client shall indemnify and hold harmless Engineer from all claims, damages, losses, and expenses including attorney's fees arising out of or resulting therefrom.

The Engineer shall have the right to include representations of the design of the Project, including photographs of the exterior and interior, among the Engineer's promotional and professional materials. The Engineer's materials shall not include the Client's confidential and proprietary information if the Client has previously advised the Engineer in writing of the specific information considered by the Client to be confidential and proprietary.

8. Standard of Practice: The Engineer will strive to conduct services under this agreement in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as of the date of this Agreement.
9. Compliance With Laws: The Engineer will strive to exercise usual and customary professional care in his/her efforts to comply with those laws, codes, ordinance and regulations which are in effect as of the date of this Agreement.

With specific respect to prescribed requirements of the Americans with Disabilities Act of 1990 or certified state or local accessibility regulations (ADA), Client understands ADA is a civil rights legislation and that interpretation of ADA is a legal issue and not a design issue and, accordingly, retention of legal counsel (by Client) for purposes of interpretation is advisable. As such and with respect to ADA, Client agrees to waive any action against Engineer, and to indemnify and defend Engineer against any claim arising from Engineer's alleged failure to meet ADA requirements prescribed.

Any claim, dispute or other matter in question arising out of or related to this Agreement, which can not be mutually resolved by the parties of this Agreement, shall be subject to mediation as a condition precedent to arbitration (if arbitration is agreed upon by the parties of this Agreement) or the institution of legal or equitable proceedings by either party. If such matter relates to or is the subject of a lien arising out of the Engineer's services, the Engineer may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by arbitration.

The Client and Engineer shall endeavor to resolve claims, disputes and other matters in question between them by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Requests for mediation shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

13. Successors and Assigns: The terms of this Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns: provided, however, that neither party shall assign this Agreement in whole or in part without the prior written approval of the other.
14. Waiver of Contract Breach: The waiver of one party of any breach of this Agreement or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof, shall be limited to the particular instance, shall not operate or be deemed to waive any future breaches of this Agreement and shall not be construed to be a waiver of any provision, except for the particular instance.
15. Entire Understanding of Agreement: This Agreement represents and incorporates the entire understanding of the parties hereto, and each party acknowledges that there are no warranties, representations, covenants or understandings of any kind, matter or description whatsoever, made by either party to the other except as expressly set forth herein. Client and the Engineer hereby agree that any purchase orders, invoices, confirmations, acknowledgments or other similar documents executed or delivered with respect to the subject matter hereof that conflict with the terms of the Agreement shall be null, void and without effect to the extent they conflict with the terms of this Agreement.
16. Amendment: This Agreement shall not be subject to amendment unless another instrument is duly executed by duly authorized representatives of each of the parties and entitled "Amendment of Agreement".

24. Client's Responsibilities: The Client agrees to provide full information regarding requirements for and about the Project, including a program which shall set forth the Client's objectives, schedule, constraints, criteria, special equipment, systems and site requirements.

The Client agrees to furnish and pay for all legal, accounting and insurance counseling services as may be necessary at any time for the Project, including auditing services which the Client may require to verify the Contractor's Application for Payment or to ascertain how or for what purpose the Contractor has used the money paid by or on behalf of the Client.

The Client agrees to require the Contractor, to the fullest extent permitted by law, to indemnify, hold harmless, and defend the Engineer, its consultants, and the employees and agents of any of them from and against any and all claims, suits, demands, liabilities, losses, damages, and costs ("Losses"), including but not limited to costs of defense, arising in whole or in part out of the negligence of the Contractor, its subcontractors, the officers, employees, agents, and subcontractors of any of them, or anyone for whose acts any of them may be liable, regardless of whether or not such Losses are caused in part by a party indemnified hereunder. Specifically excluded from the foregoing are Losses arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, and the giving of or failure to give directions by the Engineer, its consultants, and the agents and employees of any of them, provided such giving or failure to give is the primary cause of Loss. The Client also agrees to require the Contractor to provide to the Engineer the required certificate of insurance.

The Client further agrees to require the Contractor to name the Engineer, its agents and consultants as additional insureds on the Contractor's policy or policies of comprehensive or commercial general liability insurance. Such insurance shall include products and completed operations and contractual liability coverages, shall be primary and noncontributing with any insurance maintained by the Engineer or its agents and consultants, and shall provide that the Engineer be given thirty days, unqualified written notice prior to any cancellation thereof.

In the event the foregoing requirements, or any of them, are not established by the Client and met by the Contractor, the Client agrees to indemnify and hold harmless the Engineer, its employees, agents, and consultants from and against any and all Losses which would have been indemnified and insured against by the Contractor, but were not.

When Contract Documents prepared under the Scope of Services of this contract require insurance(s) to be provided, obtained and/or otherwise maintained by the Contractor, the Client agrees to be wholly responsible for setting forth any and all such insurance requirements. Furthermore, any document provided for Client review by the Engineer under this Contract related to such insurance(s) shall be considered as sample insurance requirements and not the recommendation of the Engineer. Client agrees to have their own risk management department review any and all insurance requirements for adequacy and to determine specific types of insurance(s) required for the project. Client further agrees that decisions concerning types and amounts of insurance are

Kotecki Waiver. Contractor (and any subcontractor into whose subcontract this clause is incorporated) agrees to assume the entire liability for all personal injury claims suffered by its own employees, including without limitation claims under the Illinois Structural Work Act, asserted by persons allegedly injured on the Project; waives any limitation of liability defense based upon the Worker's Compensation Act, court interpretations of said Act or otherwise; and to the fullest extent permitted by law, agrees to indemnify and hold harmless and defend Owner and Engineer and their agents, employees and consultants (the "Indemnitees") from and against all such loss, expense, damage or injury, including reasonable attorneys' fees, that the Indemnitees may sustain as a result of such claims, except to the extent that Illinois law prohibits indemnity for the Indemnitees' own negligence. The Owner and Engineer are designated and recognized as explicit third party beneficiaries of the Kotecki Waiver within the general contract and all subcontracts entered into in furtherance of the general contract.

28. Job Site Safety/Supervision & Construction Observation: The Engineer shall neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences of procedures, or for safety precautions and programs in connection with the Work since they are solely the Contractor's rights and responsibilities. The Client agrees that the Contractor shall supervise and direct the work efficiently with his/her best skill and attention; and that the Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction and safety at the job site. The Client agrees and warrants that this intent shall be carried out in the Client's contract with the Contractor. The Client further agrees that the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work; and that the Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the subject site and all other persons who may be affected thereby. The Engineer shall have no authority to stop the work of the Contractor or the work of any subcontractor on the project.

When construction observation services are included in the Scope of Services, the Engineer shall visit the site at intervals appropriate to the stage of the Contractor's operation, or as otherwise agreed to by the Client and the Engineer to: 1) become generally familiar with and to keep the Client informed about the progress and quality of the Work; 2) to strive to bring to the Client's attention defects and deficiencies in the Work and; 3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Engineer shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. If the Client desires more extensive project observation, the Client shall request that such services be provided by the Engineer as Additional and Supplemental Construction Observation Services in accordance with the terms of this Agreement.

The Engineer shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the Work, or any agents or employees of any of them. The Engineer does not guarantee the performance of the

Daniel Deeter

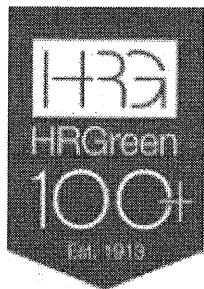
From: Creech, Scott [screech@hrgreen.com]
Sent: Wednesday, December 18, 2013 9:43 AM
To: Daniel Deeter
Cc: Jain, Ajay; Dobrosavljevic, Milan
Subject: 2013 North Madison Drainage Project - HRG proposal
Attachments: pro_86130461-NorthMadisonDrainage.pdf

Good morning Dan. Attached is our proposal for the 2013 North Madison St. Drainage Project. As always thank you for considering our firm for the work and do not hesitate to contact me or Ajay Jain regarding any questions/comments you may have regarding the proposal.

Scott

T. SCOTT CREECH, P.E.
Site Director - New Lenox, IL

HR GREEN, INC.
323 Alana Drive
New Lenox, IL. 60451
Office: 815.462.9324
Direct: 815.320.7119
Fax: 815.462.9328



Learn more at HRGreen.com

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PROFESSIONAL SERVICES AGREEMENT

For

**2013 North Madison Drainage Project
RFP No. 04-2013
Hinsdale, Illinois**

Village of Hinsdale
Daniel M. Deeter, P.E.
19 East Chicago Avenue
Hinsdale, IL 60521
(630) 789-7039

T. Scott Creech, P.E.
HR Green
323 Alana Drive
New Lenox, IL 60451
87130304

December 18, 2013

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- 8.0 TERMS AND CONDITIONS

THIS **AGREEMENT** is between The Village of Hinsdale (hereafter "CLIENT") and HR GREEN, INC. (hereafter "COMPANY").

1.0 Project Understanding

1.1 General Understanding

The CLIENT is requesting engineering services to design and provide construction observation services for a proposed storm water lift station and force main in the 400/500 block of N. Madison Street. The proposed design will provide flood reduction in the isolated low area in the vicinity of the 400/500 block of N. Madison Street by pumping storm water to a storm manhole S1190 (from where it will flow by gravity). According to the aerial map provided by the CLIENT, the storm water from MH S1190 is conveyed via an existing storm sewer that flows west to North Monroe Street and then north to West Ogden Avenue. Approximately 20-acres of drainage area are tributary to this low area. A 15-inch storm sewer used to drain this area to the west through a 10-foot easement in side and rear yards. This 15-inch storm sewer appears to be back pitched and is not functioning at the original discharge capacity and is also not a good candidate for replacement due to disruption in the resident's yard and long term issues with settlement and maintaining proper slopes due to poor soil conditions. The pumping rate from the lift station shall establish a pumping rate equal to that of the original 15-inch pipe at 0.11% slope ($Q_{full} = 2.14$ cfs, $Q_{max} = 2.30$ cfs). The CLIENT also wishes the design to accommodate future increase in capacity of up to 4 cfs along with possible extension of the force main.

1.2 Design Criteria/Assumptions

The plans and specifications are to be prepared per IDOT's Procedural Guidelines for the Assemblage and Handling of an MFT Construction, Latest Edition. The following design criteria shall be followed:

- a. Village of Hinsdale Ordinances, engineering design standards and standard details;
- b. IDOT Standard Specifications and Supplemental Specifications;
- c. Latest ADA, State and Federal Standards;
- d. Standard Specifications for Water and Sewer Main Construction in Illinois;
- e. IEPA NPDES Phase II regulations for Stormwater Pollution Prevention Plans (SWPPP); and
- f. Applicable storm water regulations per DuPage County Stormwater Ordinance

2.0 Scope of Services

As requested in the Request for Proposal (RFP), the scope of services will be those necessary to design and bid the construction of a storm water lift station and a ±450-foot force main. The scope shall also include construction observation services. The CLIENT agrees to employ COMPANY to perform the following specific scope of services:

2.1 Surveying Services

COMPANY will provide the topographic survey services associated with the Subject Project which will include the following:

Topographic Survey

For the purposes of developing construction drawings, COMPANY will perform topographic survey in the area of the proposed lift station and along the proposed force main route ("construction limits") as depicted on the map titled "Monroe Street and Madison Street Drainage Analysis and Storm Sewer Feasibility Study". COMPANY will locate visible manhole structures and provide invert depths and pipe sizes (where possible) on public storm sewers, sanitary sewers and water main utilities located within the limits specified above. COMPANY will attempt to map the underground utilities within the limits specified above based on best available information (i.e. Julie markings, Village Atlas, etc.). Trees six (6) inches or larger in diameter lying within the limits specified above will also be located and shown on the survey, but species will not be identified. In addition to the topographic survey along the construction limits, the extents of the low area (subject to flooding) between Warren Court and Morris Lane and the existing storm sewer from the low area to its outfall on West Ogden Avenue will be surveyed for the purposes of hydraulic modeling. Elevations will be referenced to the Hinsdale benchmarks, which are on the NAVD 88 vertical datum. Coordinates will be tied to the Illinois State Plane, East Zone (NAD 83) Coordinate System. It is assumed that there will be three (3) trips to the site required to complete this task

- a. Topographic Survey Drawing – The final drawing will depict existing visible improvements and property, easement, right of way lines within the areas described above. The final drawing will be incorporated into the Engineering Plans to be prepared by COMPANY. The drawing will be completed in AutoCAD Civil 3D. Because the topographic data collected will be used specifically for in-house design, a Topographic Survey Plat will not be prepared and therefore is not included within this contract.
- b. Plat of Easement – It is anticipated that additional easements will not be required as the proposed public storm sewer improvements will be placed in a public street right of way or public utility and drainage easement already dedicated or granted to the Village of Hinsdale.
- c. Record Drawing – COMPANY will provide a plan set showing rim and invert elevations, pipe lengths, percentages of slope, and locations of visible new public storm sewer structures, in accordance with the engineering plans marked "For Construction" prepared by COMPANY. The location of these utilities shall be performed only once. Any adjustments shall be done on a time and material basis. The CLIENT or contractor must notify COMPANY of any changes to the utilities, so they can be shown on the plan set accordingly. COMPANY will provide a digital copy of the plan set to be completed in AutoCAD release 2012, in addition to providing two (2) paper copies of the plan set.

2.2 Stormwater Modeling Services

COMPANY will perform the existing and proposed conditions hydrologic and hydraulic model using EPA SWMM (or other models as approved by the Village) for the area starting at the low point to the storm sewer outfall north of Ogden Avenue. The model will be developed to show that the proposed conditions will return the depth of ponding level to conditions when the existing 15-inch storm sewer was functioning adequately and the ponding levels were acceptable to the residents. This may require a pump discharge capacity of approximately 2.3 cfs as discussed in the Village's Request for Proposals (RFP). The model as well as the final design shall also include accommodating future increase in capacity to 4 cfs and associated force main extension. The modeling method to be utilized shall be approved by Village of Hinsdale and DuPage County staff prior to commencement of work.

The results of the hydrologic and hydraulic model and associated improvements (pump station wet well design, pump selections, rated capacity, pipe sizing, detention storage, interim and future design conditions, etc. will be summarized and discussed with the Village prior to start of final engineering design.

2.3 Engineering Services

Geotechnical Analysis

The CLIENT has recently conducted a geotechnical investigation in September 2013. It is our opinion that the geotechnical investigations performed are adequate for the purposes of determining soil bearing conditions and unsuitable soils. We also anticipate that the force main may be constructed using trenchless methods. Therefore, in lieu of additional soil borings and investigations, COMPANY will consult with the geotechnical engineer for written recommendations for the lift station construction and directional boring.

Clean Construction or Demolition Debris (CCDD) Certification

COMPANY will review the Village Wide Environmental Record Search (to be provided by the Village) to identify areas that may cause CCDD material rejections and will develop specifications and quantities to account for the contractor's management of handling rejected material. This includes line items to address actions upon being notified that a material is suspected of being contaminated.

Final Engineering Plans and Specifications

Upon approval of the storm water modeling and selection of the final design elements for the drainage improvements, COMPANY will prepare final engineering plans and specifications for the bidding and construction of the proposed improvements. The final engineering plans, construction specifications and contract documents will be prepared in AutoCAD Civil 3D software and in accordance with Design Criteria discussed in Section 1.2 above.

The following major design elements and associated improvements will be detailed within the final engineering plans and construction specifications:

- a. A variable drive duplex storm water lift station;
- b. Force main from low point to MH S1190 (approximately 450-foot).
- c. Design of a backup trailer mounted generator
- d. Modification or improvements to the area storm sewer along North Madison Street to bring more storm water to the proposed lift station.
- e. For all underground improvements including the force main and storm sewers, the option to use open cut and trenchless construction will be evaluated and recommendations provided to the Village. This will include sensitivity to minimizing tree impacts, and rear and side yard impacts.

The final engineering plan set shall generally consist of the following sheets:

- a. Cover Sheet;
- b. General Notes and Specifications Sheets;
- c. Schedule of Quantities Sheet;
- a. Plan and Profile Sheets
- d. Traffic Control Plan
- e. Erosion Control Plan Sheet; and
- f. Details

Also, as requested by the Village, the following design guidelines and coordination will be incorporated into the final engineering plans and construction specifications:

- a. Tree protection methods such as root pruning and tree protection fending to protect trees during construction per the Village standards/guidance;
- b. Notes that all private underground utilities including irrigation systems, invisible fences, etc. located on private or public property will be restored by the contractor;
- c. All parkway impacted by construction activities will be restored with new sod;
- d. Existing driveway aprons and sidewalks will remain unless disturbed by construction activities. Sidewalk ramps and sidewalks will be replaced to meet IDOT and ADA standards or as directed by the Village. Plans will show carriage walk steps are restored in kind.
- e. Coordinate the design with all public and private utilities

Contract Documents

COMPANY will prepare necessary bidding and contract documents required for the bidding and construction of the proposed improvements. The bidding and contract documents shall generally consist of the invitation to bid, instructions to bidders, bid form, general conditions of the contract, special provisions, contract construction forms and all other contents of the project contract document manual. The CLIENT will provide the General Conditions of the Contract upon which the contract documents shall be based. Special provisions shall be provided by the COMPANY for items not covered by the specifications or other parts of the contract documents.

Permitting

The following permits are anticipated being required for the project:

a. IEPA IRL-10 General NPDES Permit

COMPANY will prepare and submit a Notice of Intent (NOI) and Stormwater Pollution Prevention Plans (SWPPP) for coverage under the IEPA IRL-10 General NPDES Permit.

No other local, state or federal permits are anticipated including wetland delineation and mitigation. If any additional permits are necessary and not included in the scope of services as identified above, these permits can be obtained as a supplemental service to this contract.

Engineer's Opinion of Probable Construction Costs (EOPCC)

COMPANY will provide an EOPCC for the proposed improvements construction costs.

2.7 Bidding Services

COMPANY will provide bidding services that shall include preparation, printing, and distribution of bid/construction documents, verifying bid prices, contractor recommendations, attendance at bid opening, verification of bid prices and bid tabulations, and verification of bid documents. COMPANY will prepare a written recommendation of award for Village Board approval. During the bid period, COMPANY will provide assistance including preparation of any necessary addendum's, drawings, and/or specifications.

2.8. Project Progress Meetings

The COMPANY shall attend a project kickoff meeting and two (2) project progress meeting which shall include one (1) meeting with affected residents. The COMPANY will provide plans to the Village for their review at completion of the preliminary engineering, pre-final and final engineering.

2.9. Project Administration Services

COMPANY will conduct project administration duties, including project set-up, scope reviews, scheduling, budget control, manpower planning, team meetings, quality control, correspondence, and invoicing.

2.10 Construction Administration Services

COMPANY will provide a Full-time Resident Engineer (RE) for the duration of the project. For the purposes of the contract, it is assumed that the proposed work will require twenty-five (25) Working Days at eight (8) hours per day. In general, the scope will include project startup and attending a pre-construction meeting, construction observation and project closeout.

More specifically and as requested in the RFP, the RE responsibilities shall include but are not limited to:

- a. Attendance at project meeting including pre-bid, pre-construction, and weekly construction meetings.
- b. On-site observation of the contractor's operations to ensure conformance

- with the contract documents.
- c. Maintain a project diary and provide a written weekly progress report to the Village. Keep field notes for documentation of payable work as well as allow for verification of the contractor's submitted Record Drawings. Advise the Village of any changes or conditions that impact the project in a timely manner.
 - d. Serve as the Village's liaison with the Contractor, public/private utilities, various jurisdictional agencies, and the general public.
 - e. Documentation of quantities, quality assurance, arranging for materials testing, and other documentation as may be required by IDOT standards.
 - f. Daily review and inspect traffic control items and erosion control plan implementation/maintenance.
 - g. Alert the contractor's field superintendent when un-approved materials or equipment are being used and advise the Village of such occurrences.
 - h. Meeting the requirements of Public Act 96-1416 to include certification of the site of origin and ensuring that all construction debris taken from the site is monitored by a photo-ionization detector (PID) for volatile chemicals, as necessary.
 - i. Review and provide recommendations to the Village concerning applications for payment by the contractor and change order requests.
 - j. Upon substantial completion, inspect the improvements, develop and monitor completion of the final punch-list.
 - k. Coordinate with the contractor to provide a complete set of record drawings.
 - l. Track project costs.
 - m. Monitor and inform the Village Engineer of any change to the construction contractor's scope of work to support the "Village of Hinsdale Infrastructure Change Order Policy" dated September 2012 including
 - i. Notify the Village Engineering of change orders prior to their execution. Construction cannot be conducted on that change until approval is received from the Village Manager or Trustee(s).
 - ii. Provide a weekly update to the Village Engineer for change orders.
 - iii. Review, approve and forward change order documentation to the Village Engineer in a timely manner.
 - n. Provide a pre-construction video of the construction site and adjacent property features.
 - o. Assist the Village with resident notifications as required.
 - p. Coordinate with Village Public Services for utility conflicts, main breaks, water main filling/flushing, interim record drawings, etc. as necessary.

3.0 Deliverables and Schedules Included in this Agreement

The following deliverables will be submitted to the Village of Hinsdale before completion of the contract:

- 1. Hydraulic/hydrologic Analysis and Report including:
 - a. Existing storm water conveyance system maps
 - b. Local watershed map

- c. Hydrologic model input and output files (hard copy and computer disk)
- d. Hydraulic model input and output files (hard copy and computer disk)
2. Final construction documents (AutoCAD format for plans and MS Word format for Specifications).
3. Record Drawings (AutoCAD format for plans and MS Word format for Specifications).
4. Project Files (Job Boxes) at the completion of the project.

The schedule as provided below was prepared to include reasonable allowances for review and approval times required by the CLIENT and public authorities having jurisdiction over the project. This schedule shall be equitably adjusted as the project progresses, allowing for changes in the scope of the project requested by the CLIENT or for delays or other causes beyond the control of COMPANY.

Project Schedule:

- | | |
|--|-----------------------|
| • Engineering Services Contract Approval | 01/21/2014 |
| • Construction Document Development & Permitting | 01/21/14 – 06/02/2014 |
| • Construction Bid Advertisement | 06/02/2014 |
| • Construction Bid Opening | 06/23/2014 |
| • Earliest Construction Start - | 08/15/2014 |
| • Construction Completion - | 11/15/2014* |

**The construction completion date is based on a substantial completion pending pump installation and startup of the lift station. This is based on the schedule of 16-20 weeks lead time for pump delivery. The pump lead time will start from the date of shop drawing review and approval.*

4.0 Items not included in Agreement/Supplemental Services

The following items are not included as part of this agreement:

1. ROW and/or easement negotiations.
2. Soil borings and geotechnical investigations. COMPANY anticipates using existing soil boring information with supplemental geotechnical consultations as included in the scope.
3. Preliminary or final engineering design for future conditions which includes upgrading the lift station of a 4.0 cfs capacity and force main extension beyond MH S1190 to a discharge point at or beyond Ogden Avenue. However, the engineering analysis for the lift station and force main design as well as pump selections will take into account accommodating this future condition.
4. Structural Engineering Service not included
5. Full-Time Construction Observation is included for 25 field days (at an average of 8 hours/day)
6. Wetland Delineation and/or related permitting
7. Floodplain Analysis and Permitting

Supplemental services not included in the agreement can be provided by COMPANY under separate agreement, if desired.

5.0 Services by Others

None included

6.0 Client Responsibilities

The Village will provide the following materials for use with this project:

1. Guidance in establishing design criteria
2. Guidance in preparation of engineering plans, construction specifications, and contract documents
3. Electronic copies of the general conditions of the contract, the invitation to bid, instructions to bidders, bid forms, and contract construction forms
4. Guidance in establishing Specifications format
5. Guidance in selecting design materials
6. Copy of the Village wide Environmental Record Search

7.0 Professional Services Fee

7.6 Fees

The fee for services will be based on COMPANY standard hourly rates current at the time the agreement is signed. These standard hourly rates are subject to change upon 30 days' written notice. Non salary expenses directly attributable to the project such as: (1) living and traveling expenses of employees when away from the home office on business connected with the project; (2) identifiable communication expenses; (3) identifiable reproduction costs applicable to the work; and (4) outside services will be charged in accordance with the rates current at the time the work is done.

7.7 Invoices

Invoices for COMPANY's services shall be submitted, on a monthly basis. Invoices shall be due and payable upon receipt. If any invoice is not paid within 15 days, COMPANY may, without waiving any claim or right against the CLIENT, and without liability whatsoever to the CLIENT, suspend or terminate the performance of services. The retainer shall be credited on the final invoice. Accounts unpaid 30 days after the invoice date may be subject to a monthly service charge of 1.5% (or the maximum legal rate) on the unpaid balance. In the event any portion of an account remains unpaid 60 days after the billing, COMPANY may institute collection action and the CLIENT shall pay all costs of collection, including reasonable attorney's fees.

7.8 Extra Work

Any work required but not included as part of this contract shall be considered extra work. Extra work will be billed on a Time and Material basis with prior approval of the CLIENT.

7.9 Exclusion

This fee does not include attendance at any meetings or public hearings other than those specifically listed in the Scope of Services. These work items are considered extra and are billed separately on an hourly basis.

7.10 Payment

The CLIENT AGREES to pay COMPANY on the following basis:

No.	Item Description	Labor Costs	Direct Costs	Total Costs
Surveying Services				
1.	Topographic Survey	\$6,492.00	\$128.00 ¹	\$6,620.00
Total For Surveying Services				\$6,620.00
Stormwater Modeling Services				
1.	Hydrologic and Hydraulic Modeling	\$10,600.00		\$10,600.00
Total For Stormwater Modeling				\$10,600.00
Engineering Services				
1.	Geotechnical Analysis	\$680.00	\$1,000.00 ²	\$1,680.00
2.	CCDD Certification	\$1,040.00		\$1,040.00
3.	Final Engineering Plans and Specifications	\$23,190.00	\$200.00 ¹	\$23,390.00
4.	Contract Documents	\$3,810.00	\$1,000.00 ¹	\$4,810.00
6.	Permitting	\$2,200.00		\$2,200.00
Total for Engineering Services				\$33,140.00
Bidding Services				
1.	Bidding Assistant Services	\$5,500.00		\$5,500.00
2.	Attend Bid Meeting	\$1,010.00	\$34.00 ¹	\$1,044.00
Total for Bidding Services				\$6,544.00
Project Progress Meetings				
1.	Meetings	\$1,720.00	\$68.00 ¹	\$1,788.00
Total for Meetings				\$1,788.00
Project Administration Services				
1.	Project Administration and QA/QC	\$5,980.00		\$5,980.00
Total for Project Administration Services				\$5,980.00
Full Time Construction Management				
1.	Project Startup and Pre-Construction Meeting	\$1,760.00	\$68.00 ¹	\$1,828.00
2.	Shop Drawing Review	\$2,300.00		\$2,300.00
3.	Construction Observation	\$23,760.00	\$960.00 ¹	\$24,720.00
4.	Project Closeout	\$6,140.00	\$68.00 ¹	\$6,208.00
Total for Full Time Construction Management				\$35,056.00
TOTAL FOR PROJECT		\$96,202.00	\$3,526.00	\$99,728.00

1. Printing and mileage reimbursable cost
2. Geotechnical sub-consultant cost

Time and Material Basis with a Not to Exceed Fee of \$103,064.00

8.0 Terms and Conditions

The following Terms and Conditions are incorporated into this AGREEMENT and made a part of it.

8.6 Standard of Care

Services provided by COMPANY under this AGREEMENT will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing at the same time and in the same or similar locality.

8.7 Entire Agreement

This Agreement, and its attachments, constitutes the entire understanding between CLIENT and COMPANY relating to professional engineering services. Any prior or contemporaneous agreements, promises, negotiations, or representations not expressly set forth herein are of no effect. Subsequent modifications or amendments to this Agreement shall be in writing and signed by the parties to this Agreement. If the CLIENT, its officers, agents, or employees request COMPANY to perform extra work or services pursuant to this Agreement, CLIENT will pay for the additional services even though an additional written Agreement is not issued or signed.

8.8 Time Limit and Commencement of Work

This AGREEMENT must be executed within ninety (90) days to be accepted under the terms set forth herein. The work will be commenced immediately upon receipt of this signed Agreement.

8.9 Suspension of Services

If the Project or the COMPANY's services are suspended by the CLIENT for more than thirty (30) calendar days, consecutive or in the aggregate, over the term of this Agreement, the COMPANY shall be compensated for all services performed and reimbursable expenses incurred prior to the receipt of notice of suspension. In addition, upon resumption of services, the CLIENT shall compensate the COMPANY for expenses incurred as a result of the suspension and resumption of its services, and the COMPANY's schedule and fees for the remainder of the Project shall be equitably adjusted.

If the COMPANY's services are suspended for more than ninety (90) days, consecutive or in the aggregate, the COMPANY may terminate this Agreement upon giving not less than five (5) calendar days' written notice to the CLIENT.

If the CLIENT is in breach of this Agreement, the COMPANY may suspend performance of services upon five (5) calendar days' notice to the CLIENT. The COMPANY shall have no liability to the CLIENT, and the CLIENT agrees to make no claim for any delay or damage as a result of such suspension caused by any breach of this Agreement by the CLIENT. Upon receipt of payment in full of all outstanding sums due from the CLIENT, or curing of such other breach which caused the COMPANY to suspend services, the COMPANY shall resume services and there shall be an equitable adjustment to the remaining project schedule and fees as a result of the suspension.

8.10 Book of Account

COMPANY will maintain books and accounts of payroll costs, travel, subsistence, field, and incidental expenses for a period of five (5) years. Said books and accounts will be available at all reasonable times for examination by CLIENT at the corporate office of COMPANY during that time.

8.11 Insurance

COMPANY will maintain insurance for claims under the Worker's Compensation Laws, and from General Liability and Automobile claims for bodily injury, death, or property damage arising from the negligent performance by COMPANY's employees of the functions and services required under this Agreement.

8.12 Termination or Abandonment

Either party has the option to terminate this Agreement. In the event of failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party, then the obligation to provide further services under this Agreement may be terminated upon seven days written notice. If any portion of the work is terminated or abandoned by CLIENT, the provisions of this Schedule of Fees and Conditions in regard to compensation and payment shall apply insofar as possible to that portion of the work not terminated or abandoned. If said termination occurs prior to completion of any phase of the project, the fee for services

performed during such phase shall be based on COMPANY's reasonable estimate of the portion of such phase completed prior to said termination, plus a reasonable amount to reimburse COMPANY for termination costs.

8.13 Waiver

COMPANY's waiver of any term, condition, or covenant or breach of any term, condition, or covenant, shall not constitute a waiver of any other term, condition, or covenant, or the breach thereof.

8.14 Severability

If any provision of this Agreement is declared invalid, illegal, or incapable of being enforced by any Court of competent jurisdiction, all of the remaining provisions of this Agreement shall nevertheless continue in full force and effect, and no provision shall be deemed dependent upon any other provision unless so expressed herein.

8.15 Successors and Assigns

All of the terms, conditions, and provisions hereof shall inure to the benefit of and be binding upon the parties hereto, and their respective successors and assigns, provided, however, that no assignment of this Agreement shall be made without written consent of the parties to this Agreement.

8.16 Third-Party Beneficiaries

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the CLIENT or the COMPANY. The COMPANY's services under this Agreement are being performed solely for the CLIENT's benefit, and no other party or entity shall have any claim against the COMPANY because of this Agreement or the performance or nonperformance of services hereunder. The CLIENT and COMPANY agree to require a similar provision in all contracts with contractors, subcontractors, sub-COMPANYs, vendors and other entities involved in this project to carry out the intent of this provision.

8.17 Governing Law and Jurisdiction

The CLIENT and the COMPANY agree that this Agreement and any legal actions concerning its validity, interpretation and performance shall be governed by the laws of the State of Illinois without regard to any conflict of laws provisions, which may apply the laws of other jurisdictions.

It is further agreed that any legal action between the CLIENT and the COMPANY arising out of this Agreement or the performance of the services shall be brought in a court of competent jurisdiction in the State of Illinois.

8.18 Dispute Resolution

Mediation. In an effort to resolve any conflicts that arise during the design or construction of the project or following the completion of the project, the CLIENT and COMPANY agree that all disputes between them arising out of or relating to this Agreement shall be submitted to non-binding mediation unless the parties mutually agree otherwise. The CLIENT and COMPANY further agree to include a similar mediation provision in all agreements with independent contractors and COMPANYs retained for the project and to require all independent contractors and consultants also to include a similar mediation provision in all agreements with subcontractors, sub-consultants, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements.

Arbitration. In the event the parties to this Agreement are unable to reach a settlement of any dispute arising out of the services under this Agreement, involving an amount of less than \$50,000, in Mediation, then such disputes shall be settled by binding arbitration by an arbitrator to be mutually agreed upon by the parties, and shall proceed in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect. If the parties cannot agree on a single arbitrator, then the arbitrator(s) shall be selected in accordance with the above-referenced rules.

8.19 Attorney's Fees

If litigation arises for purposes of collecting fees or expenses due under this Agreement, the Court in such litigation shall award reasonable costs and expenses, including attorney fees, to the party justly entitled thereto. In awarding attorney fees, the Court shall not be bound by any Court fee schedule, but shall, in the interest of justice, award the full amount of costs, expenses, and attorney fees paid or incurred in good faith.

8.20 Ownership of Instruments of Service

All reports, plans, specifications, field data, field notes, laboratory test data, calculations, estimates and other documents including all documents on electronic media prepared by COMPANY as instruments of service shall remain the property of COMPANY. COMPANY shall retain these records for a period of five (5) years following completion/submission of the records, during which period they will be made available to the CLIENT at all reasonable times.

8.21 Reuse of Documents

All project documents including, but not limited to, plans and specifications furnished by COMPANY under this project are intended for use on this project only. Any reuse, without specific written verification or adoption by COMPANY, shall be at the CLIENT's sole risk, and CLIENT shall defend, indemnify and hold harmless COMPANY from all claims, damages and expenses including attorney's fees arising out of or resulting therefrom.

Under no circumstances shall delivery of electronic files for use by the CLIENT be deemed a sale by the COMPANY, and the COMPANY makes no warranties, either express or implied, of merchantability and fitness for any particular purpose. In no event shall the COMPANY be liable for indirect or consequential damages as a result of the CLIENT's use or reuse of the electronic files.

8.22 Failure to Abide by Design Documents or To Obtain Guidance

The CLIENT agrees that it would be unfair to hold COMPANY liable for problems that might occur should COMPANY'S plans, specifications or design intents not be followed, or for problems resulting from others' failure to obtain and/or follow COMPANY'S guidance with respect to any errors, omissions, inconsistencies, ambiguities or conflicts which are detected or alleged to exist in or as a consequence of implementing COMPANY'S plans, specifications or other instruments of service. Accordingly, the CLIENT waives any claim against COMPANY, and agrees to defend, indemnify and hold COMPANY harmless from any claim for injury or losses that results from failure to follow COMPANY'S plans, specifications or design intent, or for failure to obtain and/or follow COMPANY'S guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities or conflicts contained within or arising as a result of implementing COMPANY'S plans, specifications or other instruments of services. The CLIENT also agrees to compensate COMPANY for any time spent and expenses incurred remedying CLIENT's failures according to COMPANY'S prevailing fee schedule and expense reimbursement policy.

8.23 Opinion of Probable Construction Cost

COMPANY shall submit to the CLIENT an opinion of probable cost required to construct work recommended, designed, or specified by COMPANY, if required by CLIENT. COMPANY is not a construction cost estimator or construction contractor, nor should COMPANY'S rendering an opinion of probable construction costs be considered equivalent to the nature and extent of service a construction cost estimator or construction contractor would provide. This requires COMPANY to make a number of assumptions as to actual conditions that will be encountered on site; the specific decisions of other design professionals engaged; the means and methods of construction the contractor will employ; the cost and extent of labor, equipment and materials the contractor will employ; contractor's techniques in determining prices and market conditions at the time, and other factors over which COMPANY has no control. Given the assumptions which must be made, COMPANY cannot guarantee the accuracy of his or her opinions of cost, and in recognition of that fact, the CLIENT waives any claim against COMPANY relative to the accuracy of COMPANY'S opinion of probable construction cost.

8.24 Design Information in Electronic Form

Because electronic file information can be easily altered, corrupted, or modified by other parties, either intentionally or inadvertently, without notice or indication, COMPANY reserves the right to remove itself from its ownership and/or involvement in the material from each electronic medium not held in its possession. CLIENT shall retain copies of the work performed by COMPANY in electronic form only for information and use by CLIENT for the specific purpose for which COMPANY was engaged. Said material shall not be used by CLIENT or transferred to any other party, for use in other projects, additions to this project, or any other purpose for which the material was not strictly intended by COMPANY without COMPANY's expressed written permission. Any unauthorized use or reuse or modifications of this material shall be at CLIENT'S sole risk. Furthermore, the CLIENT agrees to defend, indemnify, and hold COMPANY harmless from all claims, injuries, damages, losses, expenses, and attorney's fees arising out of the modification or reuse of these materials.

The CLIENT recognizes that designs, plans, and data stored on electronic media including, but not limited to computer disk, magnetic tape, or files transferred via email, may be subject to undetectable alteration and/or uncontrollable deterioration. The CLIENT, therefore, agrees that COMPANY shall not be liable for the completeness or accuracy of any materials provided on electronic media after a 30 day inspection period, during which time COMPANY shall correct any errors detected by the CLIENT to complete the design in accordance with the intent of the contract and specifications. After 40 days, at the request of the CLIENT, COMPANY shall submit a final set of sealed drawings, and any additional services to be performed by COMPANY relative to the submitted electronic materials shall be subject to separate AGREEMENT. The CLIENT is aware that differences may exist between the electronic files delivered and the printed hard-copy construction documents. In the event of a conflict between the signed construction documents prepared by the COMPANY and electronic files, the signed or sealed hard-copy construction documents shall govern.

8.25 Information Provided by Others

The CLIENT shall furnish, at the CLIENT's expense, all information, requirements, reports, data, surveys and instructions required by this AGREEMENT. The COMPANY may use such information, requirements, reports, data, surveys and instructions in performing its services and is entitled to rely upon the accuracy and completeness thereof. The COMPANY shall not be held responsible for any errors or omissions that may arise as a result of erroneous or incomplete information provided by the CLIENT and/or the CLIENT's consultants and contractors.

COMPANY is not responsible for accuracy of any plans, surveys or information of any type including electronic media prepared by any other consultants, etc. provided to COMPANY for use in preparation of plans. The CLIENT agrees, to the fullest extent permitted by law, to indemnify and hold harmless the COMPANY from any damages, liabilities, or costs, including reasonable attorneys' fees and defense costs, arising out of or connected in any way with the services performed by other consultants engaged by the CLIENT.

COMPANY is not responsible for accuracy of topographic surveys provided by others. A field check of a topographic survey provided by others will not be done under this contract unless indicated in the Scope of Work.

8.26 Force Majeure

The CLIENT agrees that the COMPANY is not responsible for damages arising directly or indirectly from any delays for causes beyond the COMPANY's control. CLIENT agrees to defend, indemnify, and hold COMPANY, its consultants, agents, and employees harmless from any and all liability, other than that caused by the negligent acts, errors, or omissions of COMPANY, arising out of or resulting from the same. For purposes of this Agreement, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions or other natural disasters or acts of God; fires, riots, war or other emergencies; failure of any government agency to act in timely manner; failure of performance by the CLIENT or the CLIENT'S contractors or consultants; or discovery of any hazardous substances or differing site conditions. Severe weather disruptions include but are not limited to extensive rain, high winds, snow greater than two (2) inches and ice. In addition, if the delays resulting from any such causes increase the cost or time required by the COMPANY to perform its services in an orderly and efficient manner, the COMPANY shall be entitled to a reasonable adjustment in schedule and compensation.

8.27 Job Site Visits and Safety

Neither the professional activities of COMPANY, nor the presence of COMPANY'S employees and subconsultants at a construction site, shall relieve the General Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. COMPANY and its personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The CLIENT agrees that the General Contractor is solely responsible for job site safety, and warrants that this intent shall be made evident in the CLIENT's AGREEMENT with the General Contractor. The CLIENT also agrees that the CLIENT, COMPANY and COMPANY'S consultants shall be indemnified and shall be made additional insureds on the General Contractor's and all subcontractor's general liability policies on a primary and non-contributory basis.

8.28 Hazardous Materials

CLIENT hereby understands and agrees that COMPANY has not created nor contributed to the creation or existence of any or all types of hazardous or toxic wastes, materials, chemical compounds, or substances, or any other type of environmental hazard or pollution, whether latent or patent, at CLIENT's premises, or in connection with or related to this project with respect to which COMPANY has been retained to provide professional engineering services. The compensation to be paid COMPANY for said professional engineering services is in no way commensurate with, and has not been calculated with reference to, the potential risk of injury or loss which may be caused by the exposure of persons or property to such substances or conditions. Therefore, to the fullest extent permitted by law, CLIENT agrees to defend, indemnify, and hold COMPANY, its officers, directors, employees, and consultants, harmless from and against any and all claims, damages, and expenses, whether direct, indirect, or consequential, including, but not limited to, attorney fees and Court costs, arising out of, or resulting from the discharge, escape, release, or saturation of smoke, vapors, soot, fumes, acid, alkalis, toxic chemicals, liquids gases, or any other materials, irritants, contaminants, or pollutants in or into the atmosphere, or on, onto, upon, in, or into the surface or subsurface of soil, water, or watercourses, objects, or any tangible or intangible matter, whether sudden or not.

It is acknowledged by both parties that COMPANY'S scope of services does not include any services related to asbestos or hazardous or toxic materials. In the event COMPANY or any other party encounters asbestos or hazardous or toxic materials at the job site, or should it become known in any way that such materials may be present at the job site or any adjacent areas that may affect the performance of COMPANY'S services, COMPANY may, at its option and without liability for consequential or any other damages, suspend performance of services on the project until the CLIENT retains appropriate specialist consultant(s) or contractor(s) to identify, abate and/or remove the asbestos or hazardous or toxic materials, and warrants that the job site is in full compliance with applicable laws and regulations.

Nothing contained within this Agreement shall be construed or interpreted as requiring COMPANY to assume the status of a generator, storer, transporter, treater, or disposal facility as those terms appear within the Resource Conservation and Recovery Act, 42 U.S.C.A., §6901 et seq., as amended, or within any State statute governing the generation, treatment, storage, and disposal of waste.

8.29 Certificate of Merit

The CLIENT shall make no claim for professional negligence, either directly or in a third party claim, against COMPANY unless the CLIENT has first provided COMPANY with a written certification executed by an independent design professional currently practicing in the same discipline as COMPANY and licensed in the State in which the claim arises. This certification shall: a) contain the name and license number of the certifier; b) specify each and every act or omission that the certifier contends is a violation of the standard of care expected of a Design Professional performing professional services under similar circumstances; and c) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation. This certificate shall be provided to COMPANY not less than thirty (30) calendar days prior to the presentation of any claim or the institution of any judicial proceeding.

8.30 Limitation of Liability

The CLIENT agrees, to the fullest extent permitted by law, to limit the liability of COMPANY and COMPANY'S officers, directors, partners, employees, shareholders, owners and subconsultants to the CLIENT for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, including attorneys' fees and costs and expert witness fees and costs, so that the total aggregate liability of COMPANY and its officers, directors, partners, employees, shareholders, owners and subconsultants to all those named shall not exceed COMPANY'S total fee received for services rendered on this project or \$50,000.00, whichever is less. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.

8.31 Drywells, Underdrains and Other Infiltration Devices

Services provided by COMPANY under this AGREEMENT do NOT include the geotechnical design of drywells, underdrains, injection wells or any other item that may be devised for the purpose of removing water from the CLIENT'S property by infiltration into the ground. Due to the high variability of soil types and conditions such devices will not be reliable in all cases. While for this reason COMPANY does not recommend the use of these devices, in some cases their use may be necessary to obtain an adequate amount of area for development on the CLIENT'S property. Since the use of these devices is intended to enhance the value of the CLIENT'S property and, in some cases, allow development that would otherwise not

be possible, the CLIENT will assume all risks inherent in the design and construction of these devices, unless the contractor or a Geotechnical Engineer assumes these risks. Typical risks include but are not limited to:

- Failure to obtain the required release rate;
- Variability of the soils encountered during construction from those encountered in soil borings. (Soils can vary widely over a small change in location, horizontal or vertical, particularly with regards to permeability);
- Failure of the device due to siltation, poor construction or changes in the water table;
- Need to obtain additional soils information (i.e. borings etc.) to evaluate the function of installed devices;
- Reconstruction of failed or inadequate devices;
- Enlargement of detention/ retention facilities to make up for release rates that are lower than those used in the stormwater design, including engineering design and additional land required for such enlargement; and
- Regular maintenance to remove accumulated silt over the device's life span.

If the use of these devices is required COMPANY will advise the CLIENT that a Geotechnical Engineer must be retained to consult on the project. The CLIENT must enter into a separate agreement directly with this consultant. They will not be sub-contracted through COMPANY nor are their fees included as part of this AGREEMENT. COMPANY will work together with this consultant to obtain a final design. Our collaboration may include the use of a common standard detail or the creation of a new standard detail. COMPANY may make suggestions to the Geotechnical Engineer on ways to tailor these devices to meet the needs of the overall site design. The Geotechnical Engineer will evaluate these suggested details and modifications based on his experience and measured soils information to estimate the release rate for each detail considered. COMPANY may use a release rate of these devices as provided by the Geotechnical Engineer for the design of the stormwater system. This rate may be faxed to us, as a draft copy of the Geotechnical Engineers report or as a final copy of that report. In no case will COMPANY accept responsibility for the determination of the expected release rate of these devices.

If certification of the contractor's construction of these devices is required by the municipality or desired by the CLIENT a Geotechnical Engineer must also be obtained for these services. This is highly recommended in order to observe the actual soils where the devices are being constructed and to verify that the construction methods used do not violate any assumptions made by the Geotechnical Engineer during the design and evaluation of the standard detail. If a Geotechnical Engineer is not retained by the CLIENT to provide construction review, the CLIENT shall assume all risks that the devices may fail requiring additional geotechnical investigation or reconstruction and shall defend, indemnify and hold harmless COMPANY from all claims, damages and expenses including attorney's fees arising out of or resulting therefrom. Any construction observation services provided by COMPANY shall not include these devices.

8.32 Environmental Audits/Site Assessments

Environmental Audit/Site Assessment report(s) are prepared for CLIENT's sole use. CLIENT agrees to defend, indemnify, and hold COMPANY, its consultants, agents, and employees harmless against all damages, claims, expenses, and losses arising out of or resulting from any reuse of the Environmental Audit/Site Assessment report(s) without the written authorization of COMPANY.

8.33 Construction Observation

COMPANY shall visit the project at appropriate intervals (as described in the scope of services) during construction to become generally familiar with the progress and quality of the contractors' work and to determine if the work is proceeding in general accordance with the Contract Documents. The CLIENT has not retained COMPANY to make detailed inspections or to provide exhaustive or continuous project review and observation services. COMPANY does not guarantee the performance of, and shall have no responsibility for, the acts or omissions of any contractor, subcontractor, supplier or any other entity furnishing materials or performing any work on the project.

If the CLIENT desires more extensive project observation or full-time project representation, the CLIENT shall request in writing such services be provided by COMPANY as Additional Services in accordance with the terms of the Agreement.

This AGREEMENT is approved and accepted by the CLIENT and COMPANY upon both parties signing and dating the AGREEMENT. Work cannot begin until COMPANY receives a signed agreement. The effective date of the AGREEMENT shall be the last date entered below.

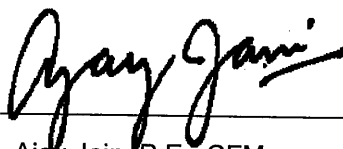
Sincerely,

HR GREEN, INC.



T. Scott Creech, P.E.
Site Director

Approved by:



Printed/Typed Name: Ajay Jain, P.E., CFM

Title: Vice President, Practice Leader Date: 12-18-13

CLIENT NAME

Accepted by:

Printed/Typed Name: Daniel M. Deeter, P.E.

Title: _____ Date: _____

December 18, 2013

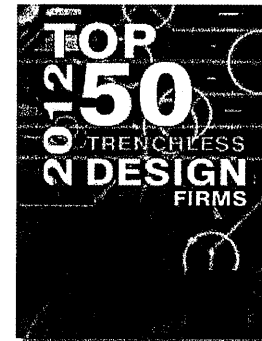
Mr. Daniel M. Deeter, P.E.
Village Engineer
Village of Hinsdale
19 East Chicago Avenue
Hinsdale, Illinois 60521-3431

SUBJECT: PROPOSAL FOR PROFESSIONAL ENGINEERING SERVICES (RFP NO. 04-2013)
2013 NORTH MADISON DRAINAGE PROJECT

Dear Mr. Deeter:

RJN Group, Inc. (RJN) is pleased to submit this proposal to the Village of Hinsdale (Village) for the preliminary engineering, engineering design, and construction services for the 2013 North Madison Drainage Project.

RJN, founded in headquarterd in Wheaton, Illinois is a consulting engineering and specialized field services firm. We specialize in providing underground utility engineering services especially with our use of innovative design concepts centered on trenchless technology. As the 2012 *Trenchless Technology* magazine, 12th ranked engineering firm for trenchless design nationally, our experience includes all methods of trenchless repair and replacement.



Our recent lift station and force main experience includes projects for many local municipalities in DuPage County as well as surrounding areas, including Elmhurst, Rolling Meadows, Glenview, Schaumburg, and the Flag Creek Water Reclamation District. Summaries of these projects are included as Exhibit A attached. We would be happy to provide references to these and other projects at your request.

Timothy Grimm, P.E. will be the project manager and Vincent Bergl, P.E., will be the project engineer for RJN Group for this project. Catherine Morley, P.E., will provide trenchless design experience. This team has substantial lift station and force main design experience and is more than capable to complete this project for the Village. Brief summaries of their experience is provided in Exhibit B.

PROJECT UNDERSTANDING AND APPROACH

Currently, the storm sewer system in the 400/500 block of North Madison Street near Warren Court drains by gravity west to Monroe Street and then north to an outfall north of Ogden Avenue. When designed and constructed in 1975, the system properly conveyed storm water during smaller storms and reduced the frequency and depth of ponding during larger events.

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However, since construction, two of the segments have become backpitched to the point that they can no longer convey the flows desired during storm events. It has been determined that these backpitched sewers have been caused by a six-foot thick seam of peat running through the area.

Included in the scope of work for this project is to model the existing and proposed conditions of this storm sewer system from their sources on N. Madison Avenue, to the outfall on Ogden Avenue. It is assumed for the purposes of this proposal that the sewers beyond the proposed force main connection at Manhole S1190, indicated on Attachment 2 of the RFP, are of sufficient capacity to transmit the flows from a proposed lift station.

The Village has indicated that the selected engineering firm will be responsible for preliminary engineering, site survey and soil borings, final engineering design, bidding assistance, and Phase III construction engineering services.

Optional Route

We have reviewed the proposed gravity and force main locations on the provided Attachment 2 of the RFP. In this review, we feel that it may be worth considering an alternate route for the force main for this project. Running a force main through the existing detention basin, and along the



Detention Basin and Proposed Lift Station Location

same route as the backpitched storm sewer may not be the most effective method as it may require substantial excavation and a difficult-to-maintain force main. Additionally, without soil borings along the length of this route, it may be difficult to confirm the absence of peat, which could cause problems with the new force main.

As an alternate route, the Village may consider another route, potentially along a new easement following the northwest property line of the property at 508 Warren Court. If granted, this easement could be a good candidate for directional drilling, should avoid the detention basin issues, and would avoid the unstable peat soils south of the detention basin. An alternate route such as this one may be less expensive to construct.

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PROPOSED SCOPE OF SERVICES

Per the RFP, our proposed scope of services is as follows:

PHASE I – Preliminary Design and Model

1. A project kick-off meeting will be held with the Village and RJN to discuss the details of the project scope and limits.
2. Record drawings, previous studies, and utility atlases of the project site will be obtained from the Village as available. RJN will also complete a Design Stage Request through JULIE and follow-up with the underground utility owners for utility atlases.
3. A detailed topographic field survey will be conducted by a qualified surveying firm to collect the horizontal and vertical locations for each element including curb and gutter, driveways, sidewalks, trees, large shrubs, utilities, inverts for storm and sanitary sewer, depth of water main at valve locations, and ground elevations. Control points and benchmarks to be used during construction will also be established. Plans will be prepared at 1" = 20' scale. Survey will use the NAVD 88 datum.
4. Develop a hydraulic model using the SWMM calculation engine to verify design criteria and evaluate downstream impacts of the proposed improvements. The model will utilize inputs (e.g. drainage areas, measures of imperviousness, and slope) from previous studies as practicable; however, if determined necessary, data from previous studies will be independently checked for reasonability and accuracy. **The hydraulic model will not include modeling of overland flow routes, nor will it be used for mapping of flood zones.** The hydraulic model will entail the following:
 - a. Development of a pipe network of the study area using field surveyed rim and invert data.
 - b. Delineation of drainage areas using DuPage County topographical data and survey data as applicable.
 - c. Determination of runoff coefficients using data available from previous analysis of the study area and land use characteristics.
 - d. Verification of peak and design discharge rates from previous studies using outputs from the hydraulic model.
 - e. Model simulation of the proposed routing alternative.

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- f. Model simulation of both existing and proposed conditions for up to two design storm events.
 - g. Model inputs and results, including drainage areas, runoff coefficients, and hydraulic profiles.
 - h. Recommendations for proposed improvements to satisfy the design criteria stipulated by the Village.
- 5. If needed to expand upon already collected geotechnical information, RJN will obtain geotechnical testing services, including soil borings, at locations along the proposed improvements.
- 6. A review of the Huff & Huff environmental records search will be completed. At each boring location, pH testing will be completed. This proposal does not include follow-up environmental testing should it be required.
- 7. A preliminary design memo will be submitted to the Village for review, discussion, and approval. This document will outline the design calculations, sizing, material selection, construction methodologies, and options for the lift station pumps, wet well, force main, generator, controls, and any new gravity sewers being installed as a part of this project.
- 8. Prior to proceeding with the detailed design, a preliminary site and alignment plan (30% completion) will be presented to the Village for review, discussion, and approval.

PHASE II – Project Design Services

- 9. RJN will prepare project plans sheets for the project design.
- 10. RJN will prepare front-end documents and technical specifications based on IDOT Standard Specifications and Supplemental Specifications, Village of Hinsdale engineering design standards and standard details, and the latest ADA state and federal standards. Additionally, the Standard Specifications for Water and Sewer Main Construction in Illinois will be incorporated into the design. As this project will be funded by Village funds, MFT paperwork is not included in this proposal.
- 11. RJN will prepare a schedule of quantities together with an anticipated construction cost (including a contingency).
- 12. RJN will provide to the Village a pre-final set of plans, specifications, and an opinion of probable construction cost for review at the 60% completion stage, and again at 90% completion prior to submitting for permits.

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13. On receipt of final mark-ups from the Village, RJN will prepare the final set and forward plans and specifications to the Village.
14. After reviewing the project, it is our assumption that there are no floodplains or special management areas within the project area. As the Village of Hinsdale is a partial-waiver community with regards to the DuPage County Stormwater Management permitting process. RJN will complete the required paperwork to submit to the Village for review and issuance of the permit for the project.
15. RJN will undertake bidding services including contacting prospective bidders, preparation, printing, and distribution of bidding and construction documents, answering questions, attending the bid opening, tabulating and verifying bids, and providing a recommendation of award to the Village.

PHASE III – Resident Engineering Services

16. RJN will provide a full-time Resident Engineer for the duration of the project. This proposal is based on 240-hours of on-site Resident Engineer (RE) services. The RE services include those outlined in Item 14 of the Project Details section provided in the RFP. RJN will arrange for materials and construction debris testing as a part of this proposal, but testing itself will be performed under the construction contract.
17. RJN will prepare for the Village a set of final construction documents in original AutoCAD and Microsoft Word format. RJN will prepare and provide record drawings from the contractor's as-built plans.

SCHEDULE

RJN is prepared to begin work on this important project upon a notice to proceed from the Village and is prepared to meet the dates outlined in the schedule provided in the Request for Proposal (RFP).

PROPOSED FEE

The base scope of services will be provided on a time and materials basis with a not-to-exceed cost of \$92,950 as outlined in the attached Summary of Engineering Services Fees. Please note that the proposed fee is based on a total of 240 hours of on-site observation of the contractor's operations.

The following optional services are not included in the base proposal, but can be included if the Village chooses.

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Mr. Daniel M. Deeter, P.E.

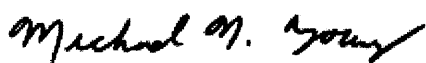
December 18, 2013

- A detailed analysis of the alternate force main route described in the approach, including site survey, model updates, and a cost comparison can be completed for an additional cost of \$4,000. This cost does not include obtaining new easements.
- Soil borings and accompanying geotechnical analysis can be added at a cost of \$2,000 per boring. No borings are included in the base scope of services.
- Additional on-site construction observation services will be provided at a rate of \$95 per hour.

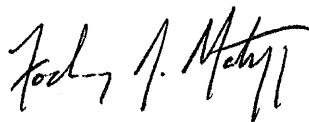
It is our pleasure to submit this proposal to the Village of Hinsdale. Please feel free to contact us at (630) 682-4700 if you would like to discuss this proposal in detail. We are looking forward to the opportunity to begin working with the Village on this important project.

Sincerely yours,

RJN Group, Inc.



Michael N. Young, P.E.
Principal



Zachary J. Matyja, P.E.
Client Manager

VILLAGE OF HINSDALE
2013 NORTH MADISON DRAINAGE PROJECT
Summary of Engineering Services Fees




LABOR COSTS

Task No.	Task Description	\$ 165 QC	\$ 135 PM	\$ 105 PE	\$ 95 RE	\$ 80 EI	\$ 60 FT	\$ 55 CL	Total Hours	Direct Costs	Total Cost
Task 1 - PRELIMINARY DESIGN											
1001	Survey and Utility Coordination and Preliminary Investigations	-	-	4	-	8	16	2	30	\$ 3,090	\$ 5,220
1002	Hydraulic Model	-	4	44	-	24	-	-	72		\$ 7,080
1003	Environmental Review	-	-	2	-	4	-	2	8	\$ 45	\$ 685
1004	Preliminary Design and Alignment	2	12	12	-	36	-	4	66		\$ 6,310
1005	Project Coordination, Meetings, and Management	2	8	8	-	2	-	4	24	\$ 90	\$ 2,720
SUBTOTAL											\$ 22,015
Task 1 - DESIGN											
2001	Final Design - Plans	4	16	12	-	98	-	-	130	\$ 3,000	\$ 14,920
2002	Final Design - Specifications	4	16	12	-	60	-	2	94	\$ 1,500	\$ 10,490
2003	Final Design - Quantities and Costs	1	2	-	4	8	-	-	15		\$ 1,455
2004	Permitting - DuPage County Stormwater Permit	1	4	8	-	16	-	-	29	\$ 45	\$ 2,870
2005	Bidding Assistance	-	2	8	6	6	-	8	30	\$ 45	\$ 2,645
2006	Project Coordination, Meetings, and Management	2	8	8	-	2	-	4	24	\$ 90	\$ 2,720
SUBTOTAL											\$ 35,100
Task 3 - RESIDENT ENGINEERING SERVICES											
3001	Contracts and Pre-Construction Meeting	2	2	-	8	-	-	4	16	\$ 45	\$ 1,625
3002	Shop Drawing Review	-	2	2	8	6	-	2	20	\$ -	\$ 1,830
3003	On-Site Construction Observation	-	-	-	240	-	-	-	240	\$ 800	\$ 23,600
3004	Reports, Punch List, and Final Inspection	-	4	-	12	4	-	2	22	\$ 90	\$ 2,200
3005	Contract Management	-	4	-	12	-	-	2	18	\$ -	\$ 1,790
3006	Record Drawings	-	2	-	8	16	-	-	26	\$ -	\$ 2,310
3007	Project Coordination, Meetings, and Management	2	8	-	8	-	-	4	22	\$ 90	\$ 2,480
SUBTOTAL											\$ 35,835
TOTAL											
		20	94	120	306	290	16	40	886	\$ 8,930	\$ 92,950

Legend

QC	Quality Control
PM	Project Manager
PE	Project Engineer
RE	Resident Engineer
EI	Engineer Intern
CD	Civil Designer
FT	Field Technician
CL	Clerical

SIMILAR EXPERIENCE

PROJECT/OWNER	DESCRIPTION
<p>Kenilworth Storm Sewer Replacement</p> <p>Glen Ellyn, Illinois</p> 	<p>Design and construction inspection services to improve capacity for 1,600 LF of an existing 10-inch storm sewer serving a residential neighborhood. Services to prepare the preliminary and final design documents included:</p> <ul style="list-style-type: none"> • Site surveys to validate surface elevations and existing storm sewer inverts and topographic survey of the ROW • Review of CCTV of the existing storm sewer and sewer pipes • Hydraulic modeling to determine sizing requirements for a 5-year 1-hour storm event • Preliminary layouts and costs to up size the storm sewer to 15-inches • Topographic survey of right-of-way <p>Much of the existing pipe was located 15- to 17-feet below the large parkway trees and partially under the concrete pavement of the roadway. The less invasive trenchless construction techniques – horizontal directional drilling and pipe bursting – minimized the negative impacts to the mature landscape and existing pavement. Approximately 716 LF was constructed using pipe bursting and 500 LF used horizontal directional drilling. Services also included bidding assistance and construction inspection services. Construction was completed within the 90 day construction period. The existing trees were preserved, minimal pavement replacement was needed, and pedestrian and local traffic were not significantly impacted.</p>
<p>Atrium Force Main Replacement</p> <p>Elmhurst, Illinois</p>  	<p>Design and construction management services for the replacement of an aging 8-inch force main. Due to a history of breaks and an IEPA violation notice, a 1,360 LF pipe segment of the 6,550 LF force main needed to be expeditiously repaired/ replaced. This segment was located in Eldridge Park which is an actively used recreational area, situated on a landfill site along Salt Creek. The existing force main alignment within the Park was located in the Salt Creek floodplain. Preserving the integrity of the Park landscaping, protecting the “memorial” trees, and allowing safe access to the park facilities during construction were primary City and Park District requirements. The design process had to account for a number of challenges because of the unique site location.</p> <ul style="list-style-type: none"> • Several trenchless methods were evaluated and directional drilling for a new alignment was the selected option. While pipe bursting and lining were feasible because there were no capacity issues, bypass pumping options were an issue because of the proximity of Salt Creek. Soil borings were taken along the route which indicated a mixture of soil, clay, and landfill. This information was used to determine the allowable depths for the drilling process. • Environmental issues had to be addressed to ensure that the drilling process did not degrade or pollute the site, and that all excavated material could be replaced at the site and did not require transport to landfill. <p>Working closely with the City, the Park District, and the County during the planning and design phases, and the contractor early in the construction phase contributed to the success of the project. Construction was completed by using two pipe segments, drilling through two bore holes, one at each end of the site, and connecting the pipe in the middle. Effort spent to collect soil borings, review existing as-builts, and develop a good profile ensured that the project was completed to meet the goals of the City withing required time frames.</p>

PROJECT/OWNER**Lift Station Consolidation Study and Design**

Burr Ridge, Illinois

**DESCRIPTION**

Engineering evaluation to assess the feasibility of consolidating four aging lift stations and followup design services. A comprehensive analysis was completed to determine based on existing equipment and current and future flow demands whether the current facilities could be abandoned, replaced or rehabilitated. The assessment included:

- Evaluating the existing collection system conditions
- Assessing and projecting future system needs
- Developing four alternatives that included a combination of abandonment, replacement, and rehabilitation for each of the four lift stations
- Analyzing and estimating costs associated with each alternative

Alternative selected relocated and replaced the Yorkshire lift station was the most cost-effective solution. Design services were provided for the new facility which uses two submersible pumps with a capacity of 1,400 gallons per minute each with a provision to add a third pump in the future. Design also included 2,747 LF of force main. Since the project was located in a floodplain, compensatory storage and other stormwater improvements were also included in the design. Construction inspection services were provided during construction.

East of Harms Lift Station

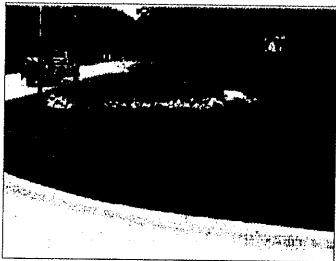
Glenview, Illinois



Design and construction inspection services for a backup prevention system that preliminary analysis of capacity requirements under various storm events. After an alternative review, design services were provided for 4,000 LF of gravity sewer, 400 LF of force main, and two lift stations that pumped flow back into the MWRDGC interceptor system during high flow events. Design utilized trenchless technologies including guided bore to minimize disturbances. Project tasks included flow monitoring, field surveys/utility locations, hydraulic and buoyancy calculations, preparation of contract plans and specifications, Construction Permit preparation for MWRDGC, Illinois Environmental Protection Agency (IEPA), and the Cook County Highway Department (CCHD) permits.

Richnee Force Main Replacement

Rolling Meadows, Illinois



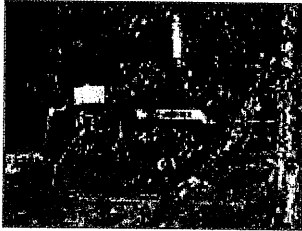
Design and construction management services for the emergency replacement of the deteriorating Richnee force main. The force main was located in a residential parkway with no sidewalks, but extensive landscaping, including terraced retaining walls and paver driveways. The City wanted to minimize disruption to the local residents and their property while keeping the project cost-effective. The existing Richnee force main was a 4-inch diameter ductile iron pipe. 560 linear feet was replaced using 4-inch HDPE DR11 in two drills. The design phase involved:

- Survey and new alignment
- Calculation of optimal pipe-size based on new alignment and head calculations for IEPA pump station permit modification
- Preparation of detail plan and profile sheets and specifications including:
 - Plan and profile sheets for a Quick Connect Valve Vault
 - Force Main Clean-out located in the roadway
 - Design for new clean-check clean-out and sanitary service to one of the residential properties
 - Preparation of Engineer's opinion of probable construction cost

RJN engineers also prepared the MWRDGC "Request for Inspection" permit and the IEPA sanitary sewer/pump station permits. Construction phase services included assisting within bidding and contractor recommendation and construction inspection.

PROJECT/OWNER**Roman's Road Force Main Replacement**

Elmhurst, Illinois

**DESCRIPTION**

Engineering design services to replace the Roman's Road Pump Station force main. Approximately 350 linear feet of 6-inch force main located west of the Roman's Road Lift Station was replaced. The project site was located within park property, however the pump station services a commercial, warehouse area of the City. RJN engineers provided the following services:

- Reviewed existing pump station data to verify force main capacity requirements
- Determined pipe sizing, material, and analysis of air release valve requirements
- Prepared plan and profile sheets and specifications for force main replacement, and pump station and downstream manhole connection points including the Quick Connect fitting
- Preparation of bidding documents
- Applied for and received construction permit from Illinois Environmental Protection Agency
- Assisted with bidding
- Assistance during construction

The force main replacement was constructed using the trenchless directional drilling technique using HDPE which provided the most cost-effective alternative and preserved the existing landscape and hardscape.

Toys R Us Lift Station Evaluation

Schaumburg, Illinois



Engineering services to conduct an evaluation of the gravity sewer options to determine the feasibility of removing the Toys-R-Us lift station and connecting to either a MWRDGC or a Village interceptor. Invert elevations were obtained by surveying the manhole rims with survey grade GPS and then measuring down to the pipe invert. Three alignment alternatives were compared for installation quantities and estimated cost. The results of the data collection and analysis showed that connecting to the 18-inch Village interceptor would be the most cost effective solution. Connecting to the MWRDGC interceptor would require significantly more sewer and manhole replacement to attain minimum slope east of National Parkway.

TIMOTHY GRIMM, P.E.

PROJECT MANAGER



Years of Experience: 12

Education:

B.S. — Civil Engineering

Registrations:

P.E. — Illinois #062-059930, Wisconsin

RELEVANT EXPERIENCE

Southwest Wet-weather Control Facility, Elmhurst, Illinois—Senior Project Engineer. Study and design services for a wet-weather relief system for the Saylor Jackson pump station. The preliminary design report included an evaluation and design for gravity sewer improvements; dry- and wet-weather capacity for the dry-weather force main; a wet-weather force main; and sizing and modifications to the pump station and a wet-weather storage facility at the WWTP.

Capital Improvement Program, Spring 2013, Wilmette, Illinois—Senior Project Engineer. Engineering services to design CIP projects including reconstruction of back pitched sewers, localized storage at two locations, and evaluation of an interceptor to identify solutions to prevent the MWRDGC interceptors from backing up into the Village system.

SSES Program, Middle Priority Basins, West Chicago, Illinois—Project Manager. Multi-year sewer study program to reduce I/I and improve system capacity including condition inspections and assessment and wet weather investigations during storm events. Collected data was analyzed to develop recommendations for rehabilitation.

Sanitary Sewer and Hydraulic Capacity Studies, DuPage County Public Works, Illinois—Project Manager. Completed Sanitary Sewer and Hydraulic Capacity Studies for DuPage County Public Works for Darien, Itasca, and Woodridge sub-basins and the City of Batavia.

CATHERINE L. MORLEY, P.E.

SENIOR PROJECT ENGINEER



Years of Experience: 30

Education:

B.S. — Civil Engineering

Postgraduate Diploma — Environmental Engineering

Registrations:

P.E. — Illinois #062-044743

Certifications/Training:

NASSCO PACP/MACP Certification, 04-10261

OSHA 10-Hour Safety Certification, 30-003162137

RELEVANT EXPERIENCE

Atrium Force Main, Elmhurst, Illinois—Project Manager. Design and bidding services for the replacement of an 8-inch force main located in the Eldridge Park area using directional drilling. Tasks included site survey, utility locates, alignment study, IEPA permitting, preparation of plans and specifications, and GIS updates.

Richnee Force Main, Rolling Meadows, Illinois—Project Manager. Design services for the emergency replacement of 560 LF of deteriorating 4-inch iron ductile force main using directional drilling. Services included survey and alignment, preparation of plans and profile sheets, submittal of the MWRDGC and IEPA permits, and construction management.

Southwest Wet-weather Control Facility, Elmhurst, Illinois—Project Manager. Study and design services for a wet-weather relief system for the Saylor Jackson pump station. The preliminary design report included an evaluation and design for gravity sewer improvements; dry- and wet-weather capacity for the dry-weather force main; a wet-weather force main; and sizing and modifications to the pump station and a wet-weather storage facility at the WWTP.

Yorkshire Lift Station Evaluation, Flagg Creek Water Reclamation District, Burr Ridge, Illinois—Senior Project Engineer. Feasibility and cost study for relocation/reconstruction of the Yorkshire Lift Station. The impact of Salt Creek and current sewer routing was incorporated in the evaluation. The study addressed the age of the existing facility; and assessed the cost of facility rehabilitation vs. relocation.

VINCENT J. BERGL, P.E.

PROJECT ENGINEER



Years of Experience: 8

Education:

B.S. — Civil Engineering

Registrations:

P.E. — Illinois #062-064638, Wisconsin

Software Expertise:

XP SWMM, SewerGEMS, MicroStation

Certifications/Training:

OSHA 10-Hour Safety Certification

Confined Space Entry

Defensive Driving for Non-Commercial Vehicles

RELEVANT EXPERIENCE

Richnee Force Main, Rolling Meadows, Illinois—Project Engineer. Design services for the emergency replacement of 560 LF of deteriorating 4-inch iron ductile force main using directional drilling. Services included survey and alignment, preparation of plans and profile sheets, submittal of the MWRDGC and IEPA permits, and construction management.

Atrium Force Main, Elmhurst, Illinois—Project Engineer. Design and bidding services for the replacement of an 8-inch force main located in the Eldridge Park area using directional drilling. Tasks included site survey, utility locates, alignment study, IEPA permitting, preparation of plans and specifications, and GIS updates.

Yorkshire Lift Station Evaluation, Flagg Creek Water Reclamation District, Burr Ridge, Illinois—Project Engineer. Feasibility and cost study for relocation/reconstruction of the Yorkshire Lift Station. The impact of Salt Creek and current sewer routing was incorporated in the evaluation. The study addressed the age of the existing facility; and assessed the cost of facility rehabilitation vs. relocation.

North Elmhurst Pump Station ESO Capacity Analysis, Elmhurst, Illinois—Project Engineer. Study and evaluation of the North Elmhurst Pump Station and the receiving gravity sewer. The study included field observation of the study area under multiple pump scenarios and XPSWMM models of the receiving trunk sewer for various storm events and debris levels. Duties included field reconnaissance, XPSWMM modeling, and preparation of a letter report and exhibits.

Highland/Frederick Lift Station Assessment, Hoffman Estates, Illinois—Project Engineer. Assessment study to develop options to eliminate three aging lift stations by constructing new sanitary sewers that cross the municipal boundaries. Responsibilities included evaluation of system capacity, O&M costs, neighboring community usage and costs, and connections to the MWRDGC.

ZACHARY J. MATYJA, P.E.

CLIENT MANAGER



Years of Experience: 11

Education:

B.S. — Civil Engineering Environmental

M.S. — Management - Project Leadership and Management

Registrations:

P.E. — Illinois #062-060247, Colorado

Certifications/Training:

OSHA 10-Hour Safety Certification

RELEVANT EXPERIENCE

Plum Tree Lift Station Evaluation, Hanover Park, Illinois—Client Manager. Evaluation of the Plum Tree Lift Station to develop options to improve hydraulics downstream of the lift station and reduce the risk for overflows. Services included a performance review of lift station operations during historical rain events, sewer video review, manhole inspections, and smoke testing in the area tributary to the lift station. Plans and specifications were prepared for follow-up manhole inspections.

Toys-R-Us Lift Station Evaluation, Schaumburg, Illinois—Project Manager. Comprehensive evaluation of the gravity sewer options to determine the feasibility of removing the Toys-R-Us lift station and connecting to either a MWRDGC or a Village interceptor. Three alignment alternatives were compared for installation quantities and estimated cost.

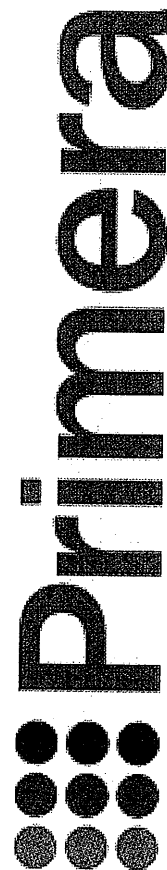
Addison Road Water Main Design, Wood Dale, Illinois—QA/QC Leader. Design services for replacement of approximately 3,000 LF of 12-inch water main using directional drilling and open-cut. Due to the location in the Salt Creek Forest Preserve permitting was required for the IEPA, DuPage Forest Preserve, and DUDOT.



REQUEST FOR PROPOSALS

2014 North Madison Drainage Project

December 18, 2013

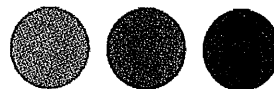


Prepared for:

Mr. Daniel Deeter, PE
Village Engineer
Village of Hinsdale
19 East Chicago Avenue
Hinsdale, Illinois 60521

Prepared by:

Primera Engineers, Ltd.
650 Warrenville Road
Suite 350
Lisle, Illinois 60532





December 18, 2013

Mr. Daniel Deeter, P.E.
Village Engineer
Village of Hinsdale
19 East Chicago Avenue
Hinsdale, Illinois 60521

Re: **2014 North Madison Drainage Project**

Dear Mr. Deeter,

Primera Engineers (Primera) is pleased to present our experience and qualifications to provide professional services to the Village of Hinsdale in regard to your Request for Proposals for engineering services for the 2014 North Madison Drainage Project.

Primera has assembled a highly qualified engineering team with the experience and resources to successfully complete this design portion of the project. Our project team has significant experience in working with municipalities on a variety of projects that include storm water management and drainage design. Primera has an excellent understanding of what is necessary to complete a project of this nature.

Mr. Nicholas Smith, PE, CFM, CPESC is our proposed Project Manager who has significant stormwater management and drainage improvement experience. He is also familiar with the project area and has worked on numerous projects in DuPage County.

On our projects, we make sure that every day counts by providing the required resources and effort to complete projects on schedule; by developing projects that do more with less which saves money for our clients; and by utilizing innovative design techniques that reduce costs, minimize delays and create sustainable solutions.

Thank you for this opportunity to provide the required professional engineering services for the Village of Hinsdale. If you have questions, or need additional information, please contact me at 312-242-6438 or at tlachus@primeraeng.com.

Respectfully,

Ted W. Lachus, P.E.
Senior Vice President

Executive Summary

Introduction

Primera Engineers, Ltd. (Primera) is pleased to present to the Village of Hinsdale our understanding of the requirements for engineering services for the 2014 North Madison Drainage Project.

Primera's Project Team includes highly qualified and experienced personnel from Primera Engineers and Landmark Engineering, who have the capabilities to successfully complete the necessary engineering and surveying services for the Village of Hinsdale.

The members of the Primera Project Team will have the following responsibilities:

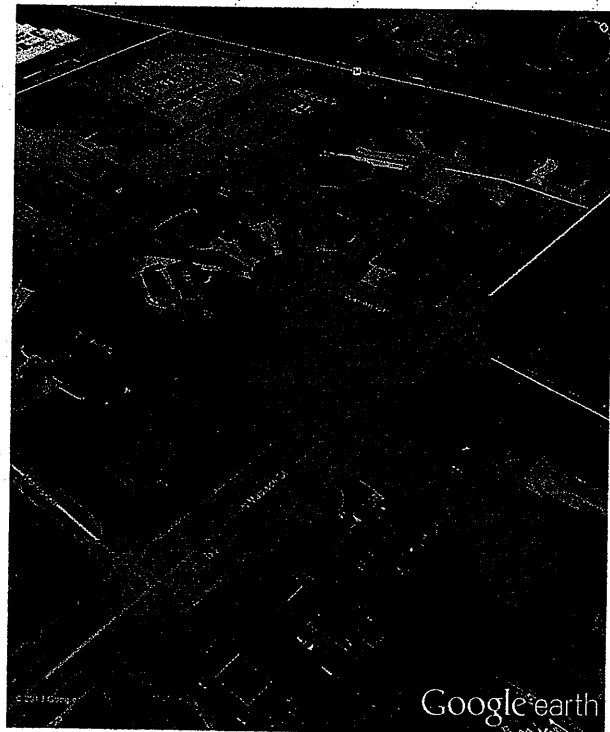
- **Primera Engineers – Project Management, Storm Sewer Analysis, Pump Station Details, Construction Documents, Construction Management**
- **Landmark Engineering – Survey**

The Village of Hinsdale can be confident that we will successfully evaluate the existing drainage system, provide cost-effective recommendations, and provide a proactive approach that will successfully complete the project on-time and under budget.

Project Understanding

The Village of Hinsdale is requesting professional engineering services for the preparation of preliminary and final contract documents and specifications, coordination and management of the permitting process, management of the bid opening process, coordination of the pre-construction meeting, construction inspection, and QA material coordination for the anticipated improvements to alleviate the flooding near Warren Court and Madison Street in Hinsdale, Illinois.

As defined in the Request for Proposal (RFP), there is a depressional area along Madison Street that is drained by a back-pitched 15 inch storm sewer. The local soils have high peat content and resulted in either sewer settlement or poor installation practices during the 1975 installation. Due to either case, an engineered solution is required which likely requires a pumping station and backup generator. Primera will evaluate pumping and gravity options then present the two most effective solutions for Village approval. Sensitive design considerations include the maintenance of the existing trees, location of the pump station and backup generator, not increasing the downstream flooding near to Ogden Avenue and always keeping in mind the potential effects to the neighboring residents.



Executive Summary

During our research, the Primera Team located the drainage utility easement documents in association with the property lot 504 Warren Court, including the stormwater (detention) easement located east of said property. Utilizing the existing detention basin to attenuate the runoff during intense rainfall conditions will be a key element to any of the potential stormwater solution. In the anticipated solution of a proposed pumping station, utilizing this existing detention basin will result in a more cost effective pumping solution, rather than utilizing variable speed or larger pumps which would result in higher construction costs.

Scope of Work

Primera has reviewed the project details included with the RFP for engineering services dated November 20, 2013 and visited the site on November 22, 2013. We agree to provide the defined services noted in the RFP. Refinements and additions to the scope of work noted in that document are as follows:

Design

1. Coordination and Communication
 - a. Monthly progress reports will be provided to Village staff.
 - b. Two (2) meetings are anticipated which includes a kick-off meeting with the Village and another for the presentation of the two proposed solutions.
2. Data Collection
 - a. Request all available and applicable utility information from the Village.
 - b. Perform the necessary field investigation and topographic survey for the drainage and utility design.
3. Design
 - a. Prepare existing conditions analysis of the local hydrology and storm sewer hydraulics.
 - b. Analyze potential stormwater alternates and prepare final plans and cost estimates to be presented to the Village.
4. Permitting
 - a. Coordinate with and obtain relevant permits from the Village.
5. Submittals
 - a. The two proposed alternate designs will be presented to Village staff.
 - b. The contract document submittals will include a pre-final and a final plan submittal for reviews by the Village.
 - c. The submittals will include engineer's cost estimate for the proposed improvements.
6. Bidding
 - a. Manage letting and bidding process.
 - i. Answer bidders' questions and prepare addenda material as required.
 - ii. Assist the Village to review and comment on Contractor's bids.
 - iii. Assist the Village to recommend a written bid award to the Contractor.

Executive Summary

Construction Engineering

1. Coordination and Communication

- a. Attend or facilitate coordination meetings, to include:
 - i. Pre-Bid
 - ii. Pre-Construction
 - iii. Weekly Construction
- b. Notify the Village of changes to scope or plan quantities in a timely manner prior to execution of the activity.

2. Construction Engineering

- a. Inspect work and materials in accordance with applicable standards.
- b. Maintain detailed record of quantities, work performed, and materials used.
- c. Evaluate accurate assessment of soils for contaminants.
- d. Review payments, RFIs, and change order requests.
- e. Assure the quality of delivered materials.

3. Deliverables

- a. Provide record drawings with as-built information.
- b. Provide project documentation and inspection files (job box).

Project Approach / Methodology

Project Initiation

After selection, key project staff will visit the project site in order to develop a list of project items and questions that will be presented at a kick-off meeting with the Village of Hinsdale.

Pre-Design Effort

At the beginning of the project, key project staff will coordinate with the Village of Hinsdale to discuss the project intent, project goals, and any questions that were developed from site visits to the project site by the project team. The discussion will include verifying the project limits, reviewing the project scope, budget, schedule, design criteria, and any local issues. At this meeting we will discuss with the Village staff the history of flooding, and any available record plans or data. Copies of any existing information will be requested by Primera (i.e. existing plans, studies, etc.).

Lines of communication will be established at the kick-off meeting. We believe it is essential to agree on communication protocols among Village of Hinsdale, Primera's Project Team and the other stakeholders.

Design Effort – Key Items

The key to the successful completion of the design effort includes the following:

- Effective communication with the Village staff and within the project team.
- Meetings, communication and coordination with the Village staff will play a key part of the design of the improvements.

Executive Summary

- Effective coordination with all the design team members to ensure that all the design elements will complement each other. This will help avoid conflicts of the various design elements during construction.
- Meeting all project schedule milestones.
- Developing project documents that are thorough and that clearly present the design intent and requirements.
- Developing a cost-effective and safe design that meets or exceeds the design criteria for a project of this type.
- Developing a design that minimizes impacts to the local residents.
- Developing a design that is well received by the local residents.
- Ensuring that all the required pay items and quantities that will be required to construct the project are in the contract documents.
- Preparing a design that will minimize disruption to the local stakeholders and the travelling public during construction.

Construction Effort

An integral part of this project will be the communication between the Primera Team, the Village and the residents and travelers who will be affected by the construction. Effective and clear communication on the project will be essential to ensure that all the stakeholders are informed on the status and changes to the project that will occur until the project is completed.

Good communication includes keeping the residents informed of the construction schedule, especially concerning water service disruptions. On past projects, being proactive in communicating with the stakeholders developed a professional relationship that provided project area homeowners peace of mind during construction.

On our completed Phase III Techny Road & Pfingsten Road Improvements project with the Village of Northbrook, Primera was actively involved in communicating with the residents and the Village. A project blog that was linked to the Village's website was utilized to post construction updates, explain the work being performed, and progress of the project.

Project Team

The proposed project team is available for assignment to this project and will be committed to this project through completion, thus ensuring continuity and efficiency through the successful completion of the job. The following key staff members will be assigned to this project.

Key Personnel

Mr. Nicholas Smith, PE, CFM, CPESC of Primera will serve as Project Manager. Mr. Smith has over 12 years of experience in water resources including a variety of stormwater management projects located in DuPage County. His experience also includes localized drainage studies, FEMA Map Amendments, watershed studies, stormwater master plans, creek re-locations, base flood elevation determinations, culvert and bridge installations, stormwater pollution prevention plans and transportation drainage projects. He is familiar with the area

Executive Summary

where the flooding has occurred and has worked on a variety of stormwater projects in the watershed.

Mr. Russ Pozen, PE of Primera, with over 10 years of experience, will be Project Engineer. Recently, Mr. Pozen served as the Project Engineer for the County Line Road Watermain Replacement for the Village of Bensenville and the Pipe Lining Project for the City of East Chicago. This project experience in addition to his other stormwater management and drainage experience will be very beneficial for this project. Mr. Pozen has also worked on a number of projects located in DuPage County and is familiar with any permitting process that will be encountered.

Ms. Mary Jo Mullen, PE, PMP of Primera will serve as QA/QC on the project. Ms. Mullen brings over 15 years of experience including 10 years working for FEMA, managing a variety of components of a \$250 Million annually funded program, as well as short-term disaster response efforts. She served as the Water Resources Lead for analysis and design of stormwater improvements in various residential areas of DuPage County. Work included hydrologic and hydraulic analyses, permitting, and plan preparation.

Mr. Abdul Mohammed, PE of Primera will serve as Resident Engineer. Mr. Mohammed is a Construction Engineer with over 9 years of experience in civil engineering, utility design, project planning, construction management, and project estimating. He is knowledgeable in construction site operations, systems analysis, construction cost accounting, construction planning and scheduling, and construction equipment management.

Landmark Engineering will provide Survey services. Landmark, based in Palos Hills, Illinois, is a Land Surveying and Engineering firm committed to the long-term prosperity and continued success of their clients. They have established an outstanding reputation in both the public and private sector for accurate surveying and sound engineering design.

Executive Summary

Why Select Primera

Primera has assembled a highly qualified project team that will be working together with the Village of Hinsdale with the utmost professionalism. On this project our project team will provide the Village with:

- Mr. Nicholas Smith, PE, CFM, CPESC as Project Manager who has significant stormwater management and drainage improvement experience and is familiar with the project area.
- Key project staff who will be committed through the successful completion of the project.
- A project team that has the resources and capacity to fulfill the project requirements.
- A project team that has the resources and capacity to complete on schedule and under budget.
- A project team that will provide the Village cost-effective solution for this project.
- A company and a project team that will always regard the Village as a key and important client.

If selected for this project, the Primera Project Team will welcome the opportunity to work with the Village of Hinsdale in completing this project on time and within budget.

Fee Proposal

Total Primera Team Fees – 2014 North Madison Drainage Project

(Fees based on the scope of work in the proposal.)

Engineering Services	Hours	Total
Topographic Survey	32	\$2,500
Stormwater Analysis	49	\$4,000
Design, Construction, Bid	147	\$12,100
Quantities and Cost Estimate	22	\$1,900
Meetings	14	\$1,700
<i>Total Design</i>	<i>280</i>	<i>\$22,200</i>
Coordination and Communication	16	\$1,300
Utility Coordination	16	\$1,300
Construction Engineering Serviced	120	\$13,900
Plan Revision Reflecting As-Built Condition	8	\$700
<i>Total Construction</i>	<i>160</i>	<i>\$17,200</i>
Total	440	\$39,400



JAMES J. BENES AND ASSOCIATES, INC.
CONSULTING ENGINEERS

December 10, 2013

Mr. Daniel M. Deeter, P.E.
Village Engineer
Village of Hinsdale
19 East Chicago Avenue
Hinsdale, IL 60521-3489

Re: Engineering Proposal
Village of Hinsdale - North Madison Drainage Project

Dear Dan:

We appreciate the opportunity to submit this proposal to perform engineering services related to a drainage study of the tributary area of the North Madison Drainage Project, Final Engineering Plans Specifications, Estimate and Construction Engineering. Our understanding of the objectives of the study, the scope of the services to be provided, and our not-to-exceed cost to perform the study, engineering and construction observation are presented in the following paragraphs. Please call me at (630) 719-7570 if you have any questions or comments concerning our proposal.

UNDERSTANDING OF THE DRAINAGE STUDY

The Village of Hinsdale wishes to have a drainage study prepared for the drainage area that is tributary to the North Madison Drainage Project (Study Area) as shown the attached exhibit. The North Madison Drainage Project is an historical local problem drainage area and a significant inconvenience to residents of the Village. Water ponds within the roadway making them impassible and on the adjacent private properties during moderate rain events.

The drainage study will:

- Define the existing drainage systems within the Study Area.
- Develop hydrologic and hydraulic computer simulations of the drainage characteristics and operation of the existing drainage systems throughout the Study Area. These computer simulations will be calibrated by comparing the flooding that result from known rainfall events.
- Identify drainage deficiencies within the Study Area and alternate drainage solutions to identify the most cost effective solution.
- Evaluate and recommend measures to reduce or eliminate the drainage inadequacies.
- Provide cost estimates for alternate drainage improvements to address identified deficiencies.
- Provide a final report that summarizes the findings and recommendations of the study.
- Include Coordination with the Village staff and elected officials and with residents of the Village.

The Final Engineering will:

- Coordinate the design proposed drainage solution with Village Staff, Illinois Department of Transportation, DuPage County, Public Utility Companies.
- Perform a detailed survey in accordance with Village of Hinsdale Policies and Procedures outlined in the RFQ/P.
- Apply study findings and recommendations
- Prepare Final Engineering Plans, Specifications and Estimate in accordance with Village of Hinsdale and IDOT Policies and Procedures in preparation for public bidding.
- Prepare all permitting documents to construct the proposed improvement.
- Identify needed permanent or temporary easements to be negotiated by the Village.

SCOPE OF SERVICES - STUDY

We propose to complete the following tasks in order to meet the objectives of the Country Club Estates Drainage Study:

DOCUMENT REVIEW

Documents supplied by the Village will be reviewed. These documents shall include:

- Historical Engineering Plans, Drainage Calculations and Drainage Studies for the Study Area.
- Village Utility Atlases
- DuPage County Contour Mapping
- Photos and reports of the flooding that resulting from storm events
- Village Flood Insurance Study
- Other Pertinent Information

SOIL BORINGS

Soil borings will be performed on an as needed basis to supplement the existing soil borings attached to the RFQ/P. Additional soil borings will become an important element to the final design to reduce the Village's exposure to costs related to poor soils and high water tables requiring dewatering which are prevalent in the study area. We have included Six (6) borings will be extended to a depth 20 feet along the proposed drainage route. This work will be subcontracted to Testing Service Corporation (TSC).

EXISTING DRAINAGE SYSTEM

Sub-drainage areas within the Study Area will be established using the Contour Mapping and Storm Sewer Atlas. Drainage characteristics such as runoff coefficients and times of concentration will be

determined for each sub-drainage area. Primary storm sewers, overland conveyance paths, and storm water storage facilities will be defined.

The elements of the existing drainage system will be field verified and coordinated with the Village staff.

HYDROLOGIC and HYDRAULIC MODELS

Hydrologic and hydraulic computer models will be developed to determine runoff rates and to analyze the operation of the existing drainage systems and storm water storage facilities throughout the study area. Runoff rates for the critical duration 10-year, 50-year and 100-year storm events will be calculated using rainfall data from the Illinois State Water Survey Bulletin 70. The existing drainage characteristic of the study area such as drainage areas, runoff curve numbers, and times of concentration will be used to determine runoff rates.

The limits of the flooding that resulted from known historical storms will be used to calibrate the models. The limits will be estimated from photos of the flooding, field survey and other data as applicable.

DRAINAGE DEFICIENCIES

The results of the calibrated hydrologic and hydraulic models will be used to identify locations within Study Area where inundation of buildings, public roadways, and private properties results from the critical duration storm events.

ALTERNATE IMPROVEMENTS

Alternate improvements to reduce or eliminate the identified drainage inadequacies will be evaluated. These improvements will include, but may not be limited to, added storm water detention, lift station and force main, storm sewer installation, and improved overland overflow conveyance. Cost estimates for each type of improvement will be prepared. Computer models of the impacts of each improvement will be developed.

REPORT

A report will be prepared that summarizes the findings of the study. The report will include:

- A description of the existing conditions within the study area
- The results of the hydrologic and hydraulic modeling
- Identified drainage deficiencies
- A discussion of alternate improvements, including estimated construction costs and computer model results and impacts

The draft report will include exhibits and drawings as required to illustrate the findings and recommendations of the study.

COORDINATION

During all phases of the study there will be an on-going, regular, coordination with the Village staff to ensure that all objectives of the Village are being met. In addition, coordination with the Village elected officials and residents from the Study Area will be provided on an as needed basis. The fee for the coordination with the elected officials and residents is not included in the not-to-exceed cost of this proposal, but rather will be invoiced as an additional service in accordance with the hourly rates provided in the "Compensation" section of this proposal.

SCOPE OF SERVICES – FINAL ENGINEERING

The following design services are proposed for the North Madison Drainage Project.

I. PRELIMINARY ENGINEERING PHASE

A. **Kick Off Meeting:**

We will attend a coordination meeting with the Village Staff at the onset of our work for the purpose of confirming the scope of the project and the anticipated schedule; review study results that were completed in the Study Phase; and to discuss any specific needs of the Village.

B. **Utility Information:**

The utility information that was obtained from utility companies (gas, electric, telephone, cable, etc.) previously will be used.

C. **Field Survey:**

We will perform a detailed topographic survey and field check of the areas of the proposed construction to verify the existing conditions to be shown on the engineering plans. In particular, the existing detention system of the Wedgewood Subdivision Improvements and its associated overland overflow route and the Ogden Avenue IDOT Right of Way detail.

D. **Geotechnical and Environmental Investigations:**

Soil borings will be performed to explore soil and water table conditions within the area of the proposed improvement. Borings that were previously performed in 2013 will be used to assist in minimizing potential unknown subsurface conditions. A Report of Soils Exploration will be prepared that identifies the geotechnical investigation findings and provides recommendation for proposed design/construction. The geotechnical investigation work will be subcontracted to Testing Service Corporation.

We will rely on previous environmental investigation by Huff and Huff Inc. And perform additional research as necessary to minimize Village exposure to unforeseen costly disposal of contaminated soil.

E. **Base Plan Sheets:**

The plan base sheets will be prepared and incorporate utility atlas information.

F. **Design Parameters and Standards :**

The following established design parameters and recommended standards will be confirmed or established:

- Horizontal and vertical alignments that were established in 2004 will be confirmed.
- It is not anticipated that any significant amount of additional impervious area will be created and therefore, storm water detention is not anticipated to be required for this project.
- Any required Best Management Practices (BMPs), per the Stormwater Ordinance will be developed. The method of providing the required PCBMP's, including fee-in-lieu, will be established.
- The construction staging to maintain traffic and access to residences will be developed.
- The design standards (i.e. Village, Illinois Standards for Water and Sewer, IDOT and DuPage County) will be confirmed.

- A preliminary design that shows the planned horizontal alignment at critical locations will be developed for the proposed sewer or force main improvements.

II. DESIGN ENGINEERING

A. Sanitary Sewer Video:

We will review video taped inspections of the existing storm sewers within the limits of the proposed construction to determine locations and extent of needed repairs or abandonment.

B. Final Design:

We will finalize the elements of the proposed improvement based on the recommendations of the Study and Village Direction. The storm sewer, force main, lift station location and horizontal alignment, vertical alignment, and design elements will be finalized.

C. Final Plans:

We will prepare final engineering plans in CADD format consisting of the following plan sheets:

- Title Sheet
- General Notes/Schedule of Quantities
- Summary of Quantities
- Alignment and Benchmarks
- Typical Sections
- Traffic Control Plan
- Plan and Profile Sheets
- Drainage and Utility Plans
- Cross Sections
- Force Main Details
- Construction Details
- IDOT District One Details
- Standard Details

D. Specifications:

We will prepare contract documents in the Village format. If the Village is granted funds unknown at this time, the contract documents will additionally follow the required format. The documents will consist of references to applicable standard specifications, special provisions, bid forms, instruction to bidders, Village General Conditions, Contract Bid Form, Bond Forms, Insurance Requirements, and applicable compliance requirements.

E. Estimates of Cost:

We will prepare cost estimates at 65% (preliminary), 95% (pre-final) and final plan completion.

F. Permitting:

We will prepare an IDOT District 1 Permit application and supporting documentation and submit to IDOT for processing.

Storm Sewer and Force Main construction permit application documents will be prepared and submitted with copies of the plans and specifications to the Illinois Environmental Protection Agency and the Illinois Department of Transportation for review and approval.

G. Submittals:

We will submit plans, contract documents, and cost estimates at the 65% (preliminary), 95% (pre-final), and final completion stages. We will meet with the Village staff as needed to discuss review comments.

We will submit plans to the utility companies at the 95% (pre-final) completion stage, and will coordinate any conflicts.

CONSTRUCTION ENGINEERING SERVICES

1. We will attend the pre-construction meeting with the Village and Contractor to review the project requirements, scheduling, sub-contractors, and other matters associated with the construction of the project. Electronic copies of the construction documents will be provided to the Village and contractor for use during construction of the improvement.
2. We will establish the limits of construction and will check the Contractor's layout of the construction lines and grade.
3. Construction observation services will be provided in accordance with Village guidelines.

The construction engineering services will not include:

- Assuming any of the responsibilities of the Contractor's superintendent or of Subcontractors.
 - Expediting the work for the Contractor.
 - Advising on, or issuing directions concerning, aspects of construction means, methods, techniques, sequences or procedures, or safety precautions and programs in connection with the work.
4. Contractor payment requests will be reviewed and compared to as-built quantities and material certifications provided by the Contractor. Engineer's Partial Payment Estimates will be prepared on a monthly basis and submitted to the Village for payment to the Contractor.
 5. Quality assurance testing and management will be provided for the concrete and hot mix asphalt construction as required. This work will be subcontracted and assumes only patching pavement and curb as required. If the Village determines that resurfacing is required additional material testing costs will be negotiated with Testing Service Corporation to be paid by the Village.
 6. Upon completion of the improvement, an Engineer's Final Payment Estimate will be prepared and submitted to the Village.

H. Bidding:

We will assist the Village as needed in receiving bids for the construction. It is anticipated that plans and contract documents will be sold at the office of James J. Benes and Associates, Inc. and payment for the plans and contract documents made to James J. Benes and Associates, Inc.

KEY PERSONNEL

The key personnel to be assigned to the drainage study will be as follows:

PRINCIPAL: James E. Darnell, P.E., CFM
President

PROJECT MANAGER: Jeffery C. Ziegler
Vice President

PROJECT ENGINEER: Joshua D. Strait, P.E.
Project Engineer

The primary contacts for the study will be Jeffery Ziegler and Joshua Strait.

COMPENSATION

Compensation for all services will be on an hourly rate basis. Invoices will be prepared monthly and will document the direct payroll and direct costs expended. The amount of the invoice will be determined as follows:

- | | |
|---|--|
| A. Direct Payroll: | Hours X Employee Hourly Rate |
| B. Expansion for Overhead
& Payroll Burden | Direct Payroll X IDOT Rate
(Current IDOT Rate is 144.61%) |
| C. Expansion for
Professional Fee: | Item (A + B) X 15% |
| D. Direct Cost: | At Actual Cost |
| E. Total Invoice Amount: | Sum of Items A, B, C & D |

The not-to-exceed cost for the Drainage Study, including direct payroll, expansion for overhead and payroll burden, professional fee, and direct costs is \$49,602.

The not-to-exceed cost for Final Engineering, including direct payroll, expansion for overhead and payroll burden, professional fee, and direct costs is \$63,842

The not-to-exceed cost for Construction Engineering, including direct payroll, expansion for overhead and payroll burden, professional fee, and direct costs is \$53,136.

The above amounts shall not be exceeded unless there is a change in the scope, complexity or character of the services to be provided. Under these circumstances adjustments in the total compensation shall be determined through negotiation between us and the Village. The not-to-exceed cost is based on the "Estimate of Manhours and Costs" that is attached to and made part of the proposal.

2014 HOURLY RATES FOR ADDITIONAL SERVICES

(including payroll rate, extension for overhead and payroll burden and professional fee)

Principal	\$166
Project Manager	\$124
Project Engineer	\$98
Technician	\$69

COMPLIANCE WITH RULES AND REGULATIONS

We comply with the Illinois Fair Employment Practices Commission's Rules and Regulations, the Americans With Disabilities Act of 1990, Public Act 87-1257 regarding sexual harassment, all current OSHA rules and regulations, and the Federal Drug Free Work Place Act. We shall also comply with all laws of the United States, State of Illinois, and all ordinances and regulations of the Village of Hinsdale.

Respectfully Submitted,

JAMES J. BENES AND ASSOCIATES, INC.


by: Jeffrey C. Ziegler
Vice President

ACCEPTANCE

If this proposal is acceptable to the Village of Hinsdale, please indicate your acceptance below and return one copy for our files.

Accepted for: _____

by: _____ Date: _____

ESTIMATE OF MANHOURS

VILLAGE OF HINSDALE NORTH MADISON DRAINAGE STUDY

December 10, 2013

STUDY		PRINC.	SR. ENG.	PROJ. ENG	FIELD TECH	CAD TECH	TOTAL HOURS	TOTAL PAY COST	DIRECT COST	TOTAL COST
CATEGORY OF SERVICE										
DOCUMENT REVIEW		1	4	4	0	0	9	\$1,055	\$0	\$1,055
SOIL BORINGS		0	2	2	0	0	4	\$444	\$7,600	\$8,044
EXISTING DRAINAGE SYSTEM										
1. Sub-Drainage Areas		1	2	8	0	0	11	\$1,201	\$0	\$1,201
2. CN's and Tc's		0	2	4	0	0	6	\$641	\$0	\$641
3. Primary Storm Sewers		2	4	2	8	0	16	\$1,580	\$0	\$1,580
4. Storage Facilities		1	4	8	8	8	29	\$2,560	\$0	\$2,560
5. Field Verification		0	4	8	16	0	28	\$2,394	\$0	\$2,394
6. Staff Coordination		8	8	8	0	0	24	\$3,106	\$0	\$3,106
HYDROLOGIC & HYDRAULIC MODELS										
1. Hydrologic Modeling (EPA SWMM)		2	0	16	0	0	18	\$1,907	\$0	\$1,907
2. Hydraulic Modeling (EPA SWMM)		0	4	32	0	0	36	\$3,646	\$0	\$3,646
3. Local Flood Limits		1	2	0	16	0	19	\$1,525	\$0	\$1,525
4. Calibration		2	2	16	0	0	20	\$2,155	\$0	\$2,155
5. Staff Coordination		2	4	4	0	0	10	\$1,221	\$0	\$1,221
IDENTIFY DRAINAGE DEFICIENCIES		2	8	8	0	0	18	\$2,110	\$0	\$2,110
ALTERNATE IMPROVEMENTS		8	20	60	0	16	104	\$10,822	\$0	\$10,822
REPORT		2	8	32	0	16	58	\$5,584	\$50	\$5,634
TOTALS		32	78	212	48	40	410	\$41,952	\$7,650	\$49,602

DESIGN		PRINC.	SR. ENG.	PROJ. ENG.	FIELD TECH	CAD TECH	TOTAL HOURS	TOTAL PAY COST	DIRECT COST	TOTAL COST	
CATEGORY OF SERVICE											
FIELD SURVEY & BASE PLANS		1	0	4	0	0	40	45	\$3,339	\$8,000	\$11,339
WETLAND / SPECIAL MGT. AREAS											
1. Site and D/S Wetland Review		2	20	2	0	0	0	24	\$3,004		\$3,004
2. Verify Dry Weather Flows		0	2	0	4	0	0	6	\$525		\$525
3. Impact Analysis / Solutions		2	16	0	0	0	0	18	\$2,312		\$2,312
4. DuPage County Correspondence		0	8	2	4	0	0	14	\$1,465		\$1,465
DESIGN DRAINAGE SYSTEM											
1. DuPlex Lift Station		4	2	16	0	8	8	30	\$3,043	\$0	\$3,043
2. Force Main		0	2	16	0	16	16	34	\$2,935	\$0	\$2,935
3. Storm Sewers		2	4	24	8	16	16	54	\$4,858	\$0	\$4,858
4. Storage Facilities		1	4	8	8	4	4	25	\$2,282	\$0	\$2,282
5. Field Verification		0	4	8	16	0	0	28	\$2,394	\$0	\$2,394
6. Details		1	4	8	0	8	8	21	\$2,005	\$0	\$2,005
6. Staff Coordination		8	8	8	0	0	0	24	\$3,106	\$0	\$3,106
COORDINATION / PERMITTING											
1. Utilities		2	0	16	0	4	4	22	\$2,185	\$0	\$2,185
2. IDOT		2	16	16	0	4	4	38	\$4,166	\$0	\$4,166
3. DuPage County		0	16	0	0	4	4	20	\$2,258	\$0	\$2,258
4. Impacted Properties		2	16	16	0	4	4	38	\$4,166	\$0	\$4,166
5. Staff Coordination		8	8	8	0	8	8	32	\$3,661	\$0	\$3,661
SPECIFICATIONS		2	12	8	0	2	2	24	\$2,744	\$0	\$2,744
QC / QA		2	8	8	0	16	16	34	\$3,221	\$0	\$3,221
PRINTING, BIDDING & TABULATION											
			2	16	0	0	0	18	\$1,823	\$350	\$2,173
TOTALS		39	152	184	40	134	549	\$55,492	\$8,350	\$63,842	

CONSTRUCTION		PRINC.	SR. ENG.	PROJ. ENG.	FIELD TECH	CAD TECH	TOTAL HOURS	TOTAL PAY COST	DIRECT COST	TOTAL COST
CATEGORY OF SERVICE										
CONSTRUCTION OBSERVATION										
1. Pre Construction		2	0	4	0	0	6	\$726	\$3,000	\$3,726
2. Observation (60 days)		6	0	10	540	0	556	\$39,500	\$0	\$39,500
3. Partial Estimates		0	0	8	0	0	8	\$788	\$0	\$788
4. Change Orders		2	0	8	0	0	10	\$1,120	\$0	\$1,120
5. Weekly Meetings		1	0	8	8	8	25	\$2,065	\$0	\$2,065
6. Punchlist		2	0	8	16	0	26	\$2,231	\$0	\$2,231
7. As-Built Plans		0	0	8	8	16	32	\$2,455	\$0	\$2,455
8. Final Quantities		2	0	16	0	0	18	\$1,907	\$0	\$1,907
TOTALS										
		15	0	70	572	24	681	\$50,792	\$3,000	\$53,792

DATE January 6, 2014**REQUEST FOR BOARD ACTION**

AGENDA EPS Committee	ORIGINATING	
SECTION NUMBER	DEPARTMENT	Parks and Recreation
ITEM DCEO/ICE Lighting Program	APPROVED	George Franco, Director of Public Services

DECO/ICE LIGHTING PROGRAM

The Village has been participating in two grant programs that provide funding to upgrade existing light fixtures to energy efficient fixtures. The funding sources are the Illinois Clean Energy (ICE) Community Foundation grant and the Illinois Department of Commerce and Economic Opportunity (DCEO) program. The program offers local government opportunities to enhance the lighting quality, save money by using efficient fixtures and improves the environment by using LED fixtures. The Village has participated in the program for the past two years which has provided funding to upgrade the interior lighting at Memorial Hall, the Water Plant, Public Services, and the Police and Fire Stations to energy efficient LED lighting.

Projects submitted for the program this year included the replacement of light fixtures at the platform tennis courts including 48 fixtures at the Katherine Legge Memorial Park, 16 at the Burns Field courts and 14 exterior fixtures at the Public Services Building.

Twin Supplies, LTD prepared and submitted the grant proposals for the DCEO and ICE programs for the Village. Twin Supplies, LTD is an approved contractor for both the DCEO and ICE programs and has provided the Village with sample fixtures to show the enhancement that would occur with the energy efficient lighting. The cost of the lighting improvements submitted for 2013 totaled \$46,124. The Village received approval for reimbursement in the amount of \$45,787.05 resulting in an expense of \$336.95 to the Village. The Village qualified for a large reimbursement because Village crews were able to install the fixtures prior to October of 2013 which qualified for an additional 10% payment incentive. Twin Supplies provided the fixtures approved through the DCEO and ICE programs.

Payment from the State of Illinois for the DCEO program was received in December through an electronic transfer in the amount of \$31,077.05. The funding from the ICE program is expected in mid-January. The Village is in receipt of invoices to reimburse Twin Supplies, Inc in the amount of \$46,124 for grant administration and for providing the approved fixtures.

LIGHTING PROJECTS

Public Service Building Projects	\$ 6,266.00
KLM Platform Tennis Court Lights	\$29,028.00
Burns Field Platform Tennis Courts Lights	<u>\$10,830.00</u>
Total Project Cost	<u>\$46,124.00</u>

GRANT FUNDING

DCEO Grant Funds	\$31,077.05
ICE Program Funds	<u>\$14,710.00</u>
Total Grant Revenue	<u>\$45,787.05</u>

Reimbursement to Twin Supplies	\$46,124.00
Cost to the Village	\$ 336.95

Should the Committee concur with the recommendation, the following motion would be appropriate:

MOTION: To recommend to the Board of Trustees to approve reimbursement to Twin Supplies, LTD in the amount of \$46,124 for administration and lighting fixtures provided thorough the DCEO and ICE grant programs.

STAFF APPROVALS

APPROVAL	APPROVAL	APPROVAL	APPROVAL	MANAGER'S APPROVAL
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COMMITTEE ACTION:

BOARD ACTION: