

Street Inventory Assessment for Pleasant Hill, Missouri

Summary Report

Prepared for
City of Pleasant Hill, Missouri
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1. Executive Summary

Background

The City of Pleasant Hill acquired the service of Affinis Corp. to aid the development of a street inventory status and condition assessment that will guide successful maintenance of the City's streets. The information compiled in this report will help the City with an objective method to prioritize improvements and estimate future annual costs.

Initial ratings of each street were completed in May 2008 by the City's staff, and those ratings were used as the starting base for this report. Construction dollars can be allotted based on the type of work needed for each street, which in turn can be incorporated into the City's annual budget. Inflation adjustments should be made each year.

The condition index gives a severity rating, which should be used as a deciding factor for prioritizing improvements. The type of rehabilitation we recommend is based on data generated in the pavement condition index ratings.

Recommendations

The recommended work types are broken down by street and each street has a condition index rating. Included in the exhibit section is a spreadsheet with the description of the type of work we recommend for each street.

We recommend the City begin a program that not only includes resurfacing but also includes a budget for routine and preventive maintenance. Annual crack sealing and cape seal, in addition to the normal construction schedule, should be included in each year's budget for preventive and routine maintenance. Areas that fall into the preventive maintenance category will continue to deteriorate if smaller problems aren't addressed earlier. If they do not receive preventive maintenance, those sections will eventually require more extensive repairs which will increase costs to the City. Yearly preventive maintenance will help keep these locations closer to their current status and possibly delay the need for more aggressive repairs in later years. Preventive maintenance is suggested on work completed in the past several years and all future work after its completion. The main concentration of this program should be on the most recently completed areas to maintain their structural integrity.

By doing preventive maintenance each year on the most recently repaired areas, a longer life span could be realized, providing the most effective return obtained on the City's dollars spent.

Extensive preventive maintenance on areas that fall into the lower condition index ratings should carefully be evaluated to see if they're truly cost effective. Areas that will either be repaired or replaced should have little preventive maintenance until after the more extensive repairs are completed.

No corings were taken for this report. Corings can help determine the integrity of the existing roadway and can also help engineers determine the best rehabilitation method to use. Corings can also help determine whether proper drainage exists in a given section of roadway. If drainage water is collected under the roadway and freezing and thawing take place, the road will crack.

2. Scope

Street History

The City of Pleasant Hill is located in Cass County, Missouri. Pleasant Hill is approximately 30 miles southeast of downtown Kansas City. The City has approximately 32 miles of streets to maintain. Street widths vary from 24 feet to 26 feet. Some streets have curb and gutter and sidewalks but a majority are edged by an earth shoulder. Most of the streets are asphalt with a few locations being concrete.

Unless completely reconstructed, many of the streets in the older part of the City were probably at one time dirt or gravel, then chipped and sealed numerous times, then finally covered with 2 inches to 3 inches of asphalt. While this method does not meet current standards for new residential street construction, the layers do provide an adequate depth for low volume roadway residential streets. Heavier traffic volumes and trucks introduce more wear and tear and result in quicker deterioration. These traffic flows generally favor major traffic routes and then branch off to their respective residential street. Although the street inventory rates each street the same way, additional attention should be paid to the maintenance and upkeep of major streets because they act as main corridors through the City.

There is no transit system that currently runs in the City. Bicycle paths are not present and sidewalks need to be upgraded to meet Americans with Disability Act (ADA) standards. The speed limit on most streets is 25 MPH with a few at 35 MPH. The major highways in the area are 7 Highway, a north and south route that bisects the City and Route 58 which runs east and west along the south side of the City. Both of these routes are maintained by the Missouri Department of Transportation (MoDOT).

Parameters

This report was developed as a guide for the maintenance of City streets. Data collected was used to determine the condition of the existing pavement (condition index rating) and what type of rehabilitation was needed for each street. The information collected includes:

- Street name
- Street width
- Street length

- Full depth patch repairs
- Rating remarks
- Unusual pavement defects
- Amount and extent of cracks

City staff drove the streets, recorded and compiled the data. This data was then utilized by Affinis Corp. to determine the condition index rating and type of work required. Additional comments were added to this report related to the condition of other items such as asphalt curb, concrete curb, curb and gutter, sidewalk, concrete entrance aprons, and all concrete paved areas.

The condition index rating sheets include all of the City's existing streets to date. Exhibit A located at the end of this report depicts the City's streets along with a colored condition rating. The City has approximately 26 miles of streets and approximately 365,939 square yards of pavement. Although the main emphasis of this report is on streets and their upkeep, some locations also need repairs to the adjacent slopes to keep the roadway improvements intact.

3. Pavement Rating & Inventory

Rating Method

The concepts outlined in the document “Pavement Maintenance Management for Roads and Parking Lots,” prepared by the U.S. Army Corps of Engineers for use in the PAVER System, were used for establishing the Work Type Assessment Listing (Table 4-1) and also the Asphalt Defect Rating Guide (Appendix A).

To track the streets, a street inventory list was developed. This was used by City staff to aid in visual observations and determine a defect rating for the street.

Pavement Condition Inventory

The pavement was rated by identifying individual defects such as cracks, alligator cracks, potholes, rutting, shoving, and riding quality. The defects were rated on scales as shown in Appendix A, and represent the extent and severity of the individual distresses. A larger numerical value indicates a more severe defect. The summation of the defect ratings subtracted from 100 determines the general condition (Condition Index) of the pavement. The higher the condition index, the better the general condition of the pavement. In addition to the defect ratings, pavement type, thickness above gutter lip, and estimated area in need of full depth replacement were recorded.

4. Evaluation

Our evaluation includes a review of field rating results, existing pavement type, pavement functional classification, and a general evaluation. This type of evaluation can provide useful information for setting up a suggested maintenance and rehabilitation program.

Pavement Ratings

The database includes current ratings taken by the City's staff for each street. The rater's evaluation was then field reviewed by others. The results from each evaluation were reviewed and combined, at which time final condition ratings were determined. This method helps to ensure a tighter range of variance and fluctuation between ratings on the same segment and within the network of segments.

As a general guide, but with some exceptions, Table 4-1 was used to rate the inventoried areas. Exceptions to the above general criteria are due to special conditions of specific paved areas. The spread within each category is to be used as a general guideline for rating purposes. The final decision of which areas to treat and the specific rehabilitation methods used shall be determined at the beginning of each year's design efforts.

Generally, the worse the condition of the pavement, the lower the condition index and the higher the costs associated with improving the street segment. Routine and preventive maintenance and rehabilitation strategies can be very effective in enhancing and preserving the life of the existing pavement. When utilized appropriately, they can prevent or delay major rehabilitation and reconstruction costs down the road.

Condition Index 91 - 100

Routine maintenance consisting of crack sealing can reduce the amount of water from penetrating into the base or subgrade and typically extends the life of pavement. Routine maintenance is the least expensive method of extending the life of pavement.

Condition Index 83 - 90

Preventive maintenance consisting of crack sealing and/or a cape seal will seal the pavement surface, including minor alligator cracking. It can also rejuvenate the oxidized asphalt pavement surfaces and replace the lost asphalt oil content, which will help bring the pavement into a fresher condition. Although preventative maintenance costs more than routine maintenance, it extends the life of pavement and is a good way to reduce street improvement costs.

Condition Index 65 - 82

Rehabilitation consisting of patching, cold milling, and overlay can correct the base and surface defects and provide a new, smooth surface while preventing further deterioration to the base and subbase. Rehabilitation offers some cost savings by correcting defects and overlaying with a smooth surface.

Condition Index 0 - 64

Reconstruction consists of replacing the entire existing pavement with 6 or 10 inches of asphalt over a four-inch subbase of aggregate. Reconstruction is the most costly method of improving streets since it involves complete replacement of all materials.

Table 4-1

**Work Type Assignments Listing
Based On Condition Indexes**

Very Good Condition (Routine Maintenance):

From: 91 Through: 100

Fair-Good Condition (Preventive Maintenance):

From: 83 Through: 90

Poor-Fair Condition (Rehabilitation):

From: 65 Through: 82

Very Poor Condition (Reconstruction):

From: 0 Through: 64

Condition Index (C.I.)	Condition Rating	Work Type
91 - 100	Very Good	Routine Maintenance
83 - 90	Fair to Good	Preventive Maintenance
65 - 82	Poor to Fair	Rehabilitation
0 - 64	Very Poor	Reconstruction

5. Work Program

The improvements and rehabilitation planned for each year should be based on a combination of the collected field information and recommendations by the City. The condition index should be used to help prioritize and assign types of improvements. Four general work types are defined: routine maintenance, preventive maintenance, rehabilitation, and reconstruction. A program should be established each year based on budget and need. It is suggested that this program always includes a substantial preventive maintenance component, which will save the City money over time. A program like this will allow some of the worst areas to be rehabbed immediately and others to receive some conditioning to prevent further damage.

Crack Sealing Program - Routine Maintenance

To preserve pavement conditions and help extend the life of the pavement, crack sealing should be performed on paved areas that meet the pavement condition index requirements. The material and work procedures should comply with APWA Section 2200 guidelines to ensure best performance of the crack sealant.

Cape Seal Program - Preventive Maintenance

This method of surface sealing was selected to further preserve the pavement surface by preventing surface water from penetrating pavement as well as to replace the pavement's lost oil content. This work shall be in compliance with APWA Section 2200 guidelines and may include some crack sealing.

Resurfacing Program - Rehabilitation

Cold milling existing pavement with a two-inch overlay will rehabilitate the pavement surface. This work will be in compliance with APWA Section 2200 guidelines. Cold milling and overlaying will provide a smooth riding surface while preventing or reducing further deterioration to the base and subbase.

Full Reconstruct Program - Reconstruction

Areas with surface and subbase deterioration will be reconstructed with new aggregate base, asphalt base, and surface asphalt. Streets not exposed to buses and heavy traffic patterns will be reconstructed with 6 inches of asphalt pavement. Areas exposed to heavier traffic patterns will receive 10 inches of asphalt pavement. Some consideration should be given to using concrete as the replacement material. Pricing today between concrete and asphalt is nearly comparable. Generally speaking, concrete pavement tend to last longer and require less maintenance.

Pothole Patching

In addition to the above programs, areas with severe potholes, alligator cracking, or any severe extensive distresses should be removed and replaced with full depth asphalt pavement. This work should be performed in accordance with APWA Section 2200 guidelines for full-depth patching asphalt replacement methods. Areas may be expanded as needed to include all adjacent deteriorated areas. Work in this category should be performed as soon as possible to avoid expansion of the deteriorated areas and further costs.

Curb and Gutter & ADA Ramps, Pullofs, Parking Spots, Mailbox Pullofs, Crosswalks & Bicycle Lanes

In addition to street improvements, consideration should be given to repairing or upgrading the following areas:

Curb and Gutter & ADA Ramps: With improvements to the existing roadways such as curb and gutter, the need to upgrade to current standards will surface. Curb and gutter generally includes an adjacent sidewalk which requires ADA compliance. This involves the construction of curb ramps along with truncated domes that meet the ADA requirements.

Pullofs: A few areas where heavy vehicles frequent the pavement may need to be beefed up to support their weight. Suggested areas include where garbage trucks stop to pick up trash, school bus stops, and service entrances.

Parking Spots: Parking along streets, especially diagonal parking tend to sink near the curb from the weight of the front of the car. To avoid this, a strip of heavier pavement could be constructed near the curb and then overlaid. This would help prevent the asphalt from sinking because of the weight and would also prevent rutting issues that now exist.

Mailbox Pulloffs: Mailbox pulloffs should be considered for safety and convenience to the postmaster.

Crosswalks & Bicycle Lanes: With the price of fuel escalating, the trend is toward making communities walkable. Consideration in new developments for sidewalks and bicycle lanes should be a consideration. With any new or rehabilitation improvements, crosswalks and sidewalks should be considered.

6. Appendices

Appendix A - Asphalt Defect Rating Guide

Appendix B – Opinion of Probable Cost

APPENDIX A

ASPHALT DEFECT RATING GUIDE

DISTRESS TYPE	EXTENT OF DEFECT RANGE	DEFECT (% AREA)	DEFECT RATING SEVERITY		
			Low	Medium	High
Transverse Cracks	0-10	1-15	3	4	6
Longitudinal Cracks	0-10	16-35	4	6	8
Shrinkage Cracks (Block Cracking)	0-10	35+	5	7	10
Shoving	0-15	1-15	3	6	8
Pot Holes	0-15	16-35	5	9	12
Rutting	0-15	35+	6	11	15
Alligator Cracks	0-25	1-15	5	8	13
		16-35	8	15	20
		35+	10	18	25

APPENDIX B

Opinion of Probable Cost (Year 2008 or Most Current Suggested Unit Prices)

Item Number	Description	Unit	Unit Price
1	Crack Seal (0.23 lbs/S.Y.)	S.Y.	\$2.50
2	Cape Seal	S.Y.	\$5.00
3	2" Edge Mill and Overlay	S.Y.	\$10.00
4	2" New Asphalt Surface	S.Y.	\$9.00
5	4" New Asphalt Base	S.Y.	\$15.00
6	8" New Asphalt Base	S.Y.	\$20.00
7	4" New Aggregate Base	S.Y.	\$6.00
8	Remove Total Existing Asphalt	S.Y.	\$12.00
9	6" Full Depth Patch (Incls. Removal)	S.Y.	\$54.00
10	10" Full Depth Patch (Incls. Removal)	S.Y.	\$62.00
11	Concrete Sidewalk	S.Y.	\$50.00
12	Curb and Gutter	L.F.	\$22.00

7. Exhibits

Exhibit A: Street Inventory and Recommended Work Type Map

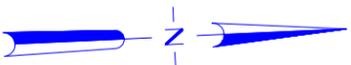
Exhibit B: Pavement Condition Indexes and Recommended Work Type
(Alphabetical Listings)

Exhibit C: Pavement Condition Indexes and Recommended Work Type (Low to
High Condition Index Listings)

Exhibit D: Typical Roadway Sections



PLEASANT HILL, MO



NOT TO SCALE

LEGEND

- PAVEMENT RATING 100-92
- CRACK SEAL
- PAVEMENT RATING 91-81
- CAPE SEAL
- PAVEMENT RATING 80-66
- EDGE MILL AND OVERLAY
- PAVEMENT RATING 65 AND BELOW
- RECONSTRUCT
- UNRAISED
- CITY LIMITS

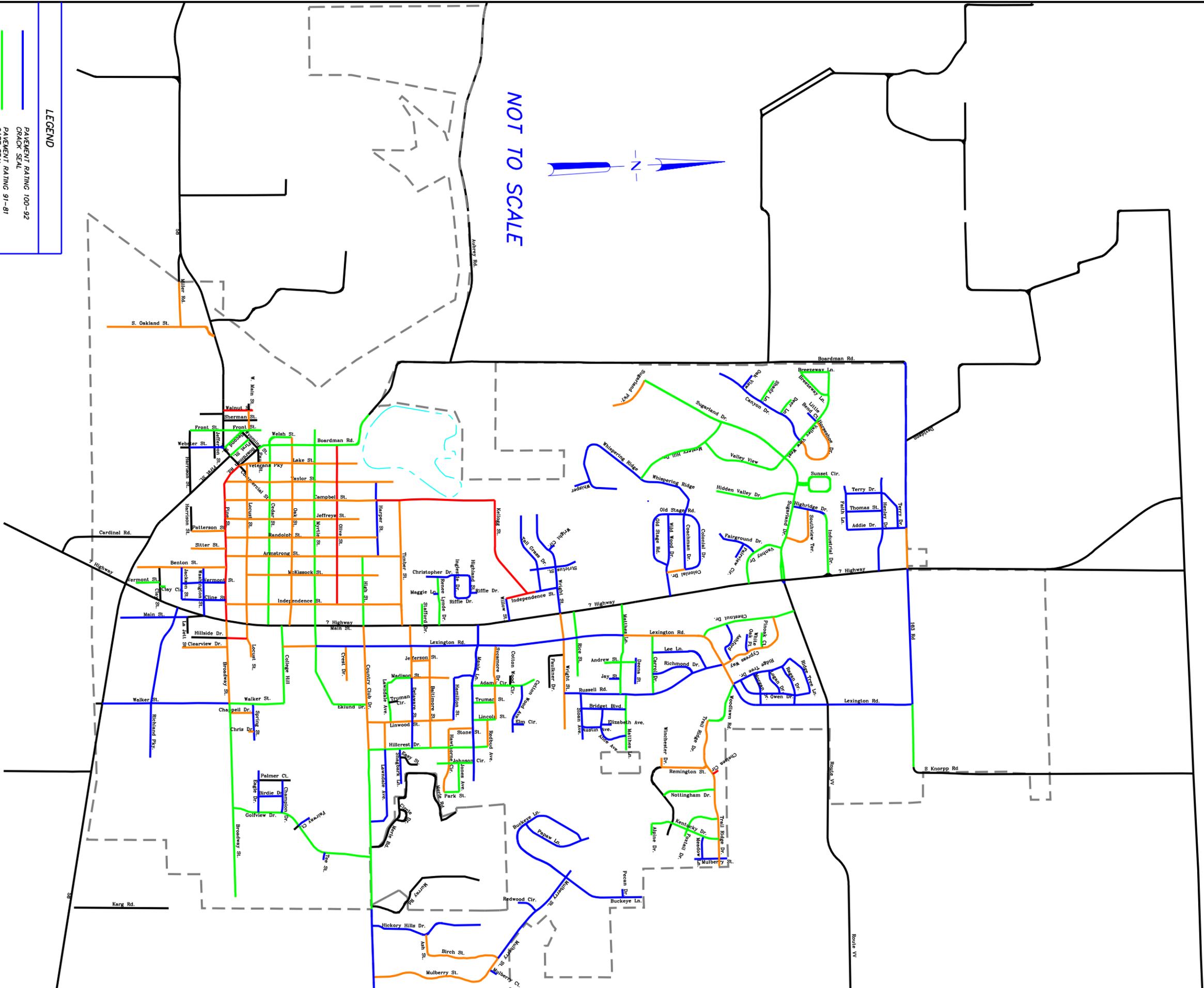


EXHIBIT A

STREET INVENTORY AND RECOMMENDED WORK TYPE



ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit B



City of Pleasant Hill, Missouri

Rated by: City of Pleasant Hill

Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
163RD	7HWY	ADDIE	450/408	24	AP/CS	80	2" Mill & Overlay	\$81,632	408' Chip & Seal needs repair
163RD	KNORPP	LEXINGTON	1328	24	ROCK	90	Cape Seal	\$17,707	
163RD	LEXINGTON	7HWY	2622	24	CS	95	Crack Seal	\$17,480	
163RD	ADDIE	BOARDMAN	3200	26	AP	98	Crack Seal	\$23,111	
ADAMS CIR	MAPLE	END	1180	24	AP	90	Cape Seal ⁽¹⁾	\$19,333	
ADDIE	163RD	FAITH	1135	24	AP	93	Crack Seal	\$7,567	
ALICE AVE	BRIDGET	MATTHES LN	908	24	AP	96	Crack Seal ⁽¹⁾	\$6,653	
ALPINE DR	KENTUCKY	END	227	24	AP	90	Cape Seal	\$3,027	New 2003
ANDREW	DEENA	END	601	24	AP	84	Cape Seal ⁽¹⁾	\$10,413	
ARMSTRONG ST	PINE	TIMBER	3315	24	AP	79	2" Mill & Overlay ^(1,2,3)	\$138,710	
ASH ST	HICKORY HILLS	BIRCH	386	24	AP	75	2" Mill & Overlay ⁽¹⁾	\$13,893	
ASHFORD	CHESTNUT	CYPRESS	806	24	AP	98	Crack Seal	\$5,373	
AUSTIN AVE	SLOAN	ALICE	329	24	AP	99	Crack Seal	\$2,193	
BALTIMORE ST	LEXINGTON	HILLCREST	1907	24	AP	80	2" Mill & Overlay	\$53,253	
BENTON ST	PINE	END	1623	24	AP	73	2" Mill & Overlay ^(1,2,3)	\$82,930	
BIRCH ST	ASH	MULBERRY	1294	24	AP	71	2" Mill & Overlay ⁽¹⁾	\$41,707	
BIRDIE DR	CHAMPION	EAGLE	465	24	AP	100	Crack Seal	\$3,100	New 2005
BOARDMAN ST	PAUL STREET	CITY LIMITS	2997	24	AP	81	Cape Seal ^(1,3)	\$75,810	40% in flood area
BREEZEWAY	VALLEYVIEW WEST	END	1135	24	AP	85	Cape Seal ⁽¹⁾	\$31,477	
BRIDGET BLV	SLOAN	MATTHES LN	828	24	AP	99	Crack Seal ⁽¹⁾	\$6,120	
BROADWAY ST	7 HWY	WALKER	1566	28	AP	72	2" Mill & Overlay ^(1,2,3)	\$71,864	
BROADWAY ST	WALKER	EAST END	3675	24	AP	90	Cape Seal ^(1,3)	\$78,633	New 1998 Slurry
BUCKEYE LN	PAPAW	END	4405	24	AP	100	Crack Seal	\$29,367	New in 2004 2006
CAMPBELL ST	PINE	KELLOGG	5177	24	AP	74	2" Mill & Overlay ^(1,2,3)	\$369,701	Kellogg to Harper - Reconstruction
CANYON DR	VALLEY VIEW WEST	END	2032	24	AP	93	Crack Seal ⁽¹⁾	\$15,947	
CARROL DR	LEXINGTON	RUSSELL	1089	24	AP	85	Cape Seal	\$14,520	Slurry 2010
CEDAR ST	7 HWY	WELSH	3598	36	AP	88	Cape Seal ⁽¹⁾	\$73,760	
CHAMPION DR	GOLFVIEW	END	454	24	AP	100	Crack Seal	\$3,027	New 2005
CHAPPELL DR	SPRING	BROADWAY	408	24	AP	72	2" Mill & Overlay ^(1,2,3)	\$30,090	
CHELSEA CIR	TRAILRIDGE	END	125	24	AP	65	Reconstruction	\$14,000	
CHESTNUT DR	RTE VV	LEXINGTON	1850	24	AP	86	Cape Seal	\$24,667	
CHRIS DR	SPRING	END	60	24	AP/ROCK	80	2" Mill & Overlay ⁽²⁾	\$1,820	
CHRISTOPHER DR	HIGHLAND	END	832	24	AP	94	Crack Seal ⁽²⁾	\$6,207	
CLAY CIR	CLAY	END	115	24	AP	89	Cape Seal ^(1,3)	\$4,733	
CLEARVIEW DR	BROADWAY	SOUTH	908	24	AP	75	2" Mill & Overlay ^(2,3)	\$59,313	

ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit B



City of Pleasant Hill, Missouri

Rated by: City of Pleasant Hill

Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
CLINE ST	BROADWAY	JACKSON	840	24	AP	95	Crack Seal ^(2,3)	\$29,050	
COACHMAN	COLONIAL	OLD STAGE	999	24	AP	92	Crack Seal	\$6,660	
COLLEGE HILL ST	7 HWY	WALKER	1453	24	AP	82	Cape Seal ⁽¹⁾	\$22,973	
COLONIAL	WILDWOOD	OLD STAGE	1648	24	AP	92	Crack Seal ⁽¹⁾	\$22,320	Coachman to Wild Wood-Mill & Overlay
COTTONWOOD AVE	ADAMS CIR	END	905	24	AP	95	Crack Seal	\$6,033	
COUNTRY CLUB DR	7 HWY	CITY LIMITS	6666	24	AP	76	2" Mill & Overlay	\$122,642	7 Hwy to Hillcrest
CREST DR	LEXINGTON	END	635	24	AP	79	2" Mill & Overlay ^(1,3)	\$22,533	
CYPRESS WY	LEXINGTON	CHESTNUT	1523	24	AP	72	2" Mill & Overlay ⁽¹⁾	\$62,669	
DEENA	END	END	442	24	AP	98	Crack Seal ⁽¹⁾	\$6,547	
DEER LN	CANYON DR	END	306	24	AP	86	Cape Seal ⁽¹⁾	\$8,880	
DELAWARE ST	7 HWY	HILLCREST	2238	24	AP	80	2" Mill & Overlay	\$32,420	875' (7 Hwy to Madison)
EAGLE DR	GOLFVIEW	END	454	24	AP	100	Crack Seal	\$3,027	New 2005
EKLUND DR	COUNTRY CLUB	MYRTLE	703	24	AP	90	Cape Seal ^(1,3)	\$16,073	
ELIZABETH LN	ALICE	END	215	24	AP	100	Crack Seal	\$1,433	
ELM CIR	COTTONWOOD	END	158	24	AP	100	Crack Seal	\$1,053	
FAIRGROUND CIR	FAIRGROUND	END	295	24	AP	100	Crack Seal	\$1,967	
FAIRGROUND DR	VANHOY	END	703	24	AP	100	Crack Seal	\$4,687	
FAIRWAY CT	GOLFVIEW	END	363	24	AP	100	Crack Seal	\$2,420	New 2005
FAITH	ADDIE	TERRY	883	24	AP	100	Crack Seal	\$5,887	
FIRST ST	WYOMING	COMMERCIAL	454	24	AP	88	Cape Seal ⁽¹⁾	\$8,213	
FOXTRAIL DR	TRAILRIDGE	END	708	24	AP	90	Cape Seal	\$9,440	New 2005
FRONT ST	HARRISON	END	1362	24	AP	86	Cape Seal ^(1,2,3)	\$36,312	
GOLFVIEW DR	COUNTRY CLUB	BROADWAY	3019	24	AP	90	Cape Seal	\$40,253	New 2005
HAMILTON ST	LINWOOD	MADISON	828	24	AP	100	Crack Seal	\$5,520	
HARPER ST	ARMSTRONG	TAYLOR	1407	24	AP	93	Crack Seal ^(1,2,3)	\$33,980	75% slurry 2006
HAWTHORNE ST	STONE	PARK	1226	24	AP	76	2" Mill & Overlay ^(1,2)	\$49,073	
HENLEY	TERRY	7 HWY	1663	24	AP	100	Crack Seal	\$11,087	
HICKORY HILLS DR	COUNTRY CLUB	END	1010	24	AP	100	Crack Seal	\$6,733	
HIDDEN VALLEY	SUGAR LAND	END	1464	24	AP	88	Cape Seal ⁽¹⁾	\$33,920	
HIGH RIDGE	INDUSTRIAL	SUGARLAND	794	24	AP	97	Crack Seal ⁽¹⁾	\$6,493	
HIGH ST	7 HWY	ARMSTRONG	1317	24	AP	83	Cape Seal ^(1,2,3)	\$41,170	
HIGHLAND ST	CHRISTOPHER	RIFFLE	420	24	AP	100	Crack Seal	\$2,800	New 2005
HILLCREST DR	COUNTRY	REDBUD	2251	24	AP	82	Cape Seal ⁽¹⁾	\$33,613	Slurry 300' Only/Overlaid 2006
HILLSIDE DR	BROADWAY	LOCUST	329	24	AP	60	Reconstruction ^(2,3)	\$60,474	
HORSESHOE DR	VALLEYVIEW WEST	END	1487	24	AP	80	2" Mill & Overlay	\$39,653	

ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit B



City of Pleasant Hill, Missouri

Rated by: City of Pleasant Hill

Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
INDEPENDENCE	WRIGHT ST	WILLOW	999	24-16	AP-CS	64	Reconstruction	\$53,740	549' Reconstructed - 450' 3 yrs old
INDEPENDENCE	BROADWAY	TIMBER	3337	24	AP	70	2" Mill & Overlay ⁽¹⁾	\$116,587	
INDUSTRIAL	7 HWY	HIGH RIDGE	1030	23-34	AP	85	Cape Seal ⁽¹⁾	#VALUE!	
INGLE SIDE DR	RIFFLE	CHRISTOPHER	420	24	AP	100	Crack Seal	\$2,800	New 2005
JACKSON ST	CLINE	BENTON	613	24	AP	94	Crack Seal ⁽³⁾	\$8,237	
JAY	MATTHES LN	END	193	24	AP	96	Crack Seal ⁽¹⁾	\$3,087	
JEFFERSON ST	BALTIMORE	DELAWARE	283	24	AP	71	2" Mill & Overlay ⁽¹⁾	\$11,147	
JEFFREYS ST	PINE	NORTH END	2554	24	AP	80	2" Mill & Overlay ^(2,3)	\$99,987	
JOHNSON CIR	MAPLE	END	669	24	AP	87	Cape Seal ⁽¹⁾	\$16,120	
JONES AVE	JOHNSON	PARK	510	24	AP	88	Cape Seal ⁽¹⁾	\$8,600	
KELLOGG ST	INDEPENDENCE	CAMPBELL	2009	20	AP	55	Reconstruction	\$187,507	
KENTUCKY	TRAILRIDGE	ALPINE	1305	24	AP	90	Cape Seal	\$17,400	New 2005
LAKE ST	CEDAR	NORTH END	1667	24	AP	80	2" Mill & Overlay ^(1,2,3)	\$72,427	
LAWNDALE	LINWOOD	MADISON	720	24	AP	85	Cape Seal	\$9,600	
LAWNDALE AVE	COUNTRY CLUB	LINWOOD	2100	24	AP	80	2" Mill & Overlay	\$24,500	Hillcrest to CC - New 2007
LEE LN	CARROL	RUSSELL	1146	24	AP	98	Crack Seal	\$7,640	Slurry 2010
LEXINGTON	CHESTNUT DR	RTE VV	3080	24	AP	79	2" Mill & Overlay ⁽¹⁾	\$39,293	638' - 2" Mill & Overlay
LEXINGTON	COLLEGE HILL	CHESTNUT DR	8190	30	AP	95	Crack Seal	\$126,350	2204' - 2" Mill & Overlay
LEXINGTON	RTE VV	163 ST	1578	24	AP	100	Crack Seal	\$10,520	
LINCOLN ST	SYCAMORE	MAPLE	431	24	AP	85	Cape Seal ^(1,2)	\$24,627	Full Depth - r/r Spring
LINWOOD ST	COUNTRY CLUB	HAMILTON	1612	24	AP	80	2" Mill & Overlay	\$45,987	
LITTLE BEND CT	VALLYEVIEW WEST	VALLEYVIEW WEST	238	24	AP	94	Crack Seal ⁽¹⁾	\$7,347	
LOCUST ST	7HWY	VETERANS	3042	24	AP	66	2" Mill & Overlay ⁽¹⁾	\$102,720	
LOCUST ST	7 HWY	END	140	24	AP	75	2" Mill & Overlay ^(2,3)	\$13,793	
LOGAN DR	OWEN	RIDGE TREE	500	24	AP	100	Crack Seal	\$3,333	
MADISON ST	DELAWARE	END	567	24	AP	80	2" Mill & Overlay	\$17,520	
MADISON ST	LAWNDALE	DELAWARE	520	24	AP	85	Cape Seal	\$6,933	
MADISON ST	HAMILTON	MAPLE	340	24	AP	100	Crack Seal	\$2,267	New 2007
MAGGIE LN	RENEE LYNDE	END	90	24	AP	99	Crack Seal	\$600	
MAIN ST	RICHLAND	NORTH END	420	24	AP	100	Crack Seal	\$2,800	New 2007
MAIN ST	RICHLAND	SOUTH END	660	24	AP	100	Crack Seal ^(1,3)	\$49,590	New 2008
MAPLE LN	7 HWY	END	2963	24	AP	93	Crack Seal ⁽¹⁾	\$23,353	
MATTHES LN	7 HWY	END	2713	24	AP	86	Cape Seal ⁽¹⁾	\$37,373	Slurry 2010
MCKISSOCK ST	LOCUST	NORTH END	2668	24	AP	70	2" Mill & Overlay ^(1,2,3)	\$116,487	
MEADOW LN	MULBERRY	KENTUCKY	442	24	AP	100	Crack Seal	\$2,947	New 2005

ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit B



City of Pleasant Hill, Missouri

Rated by: City of Pleasant Hill

Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
MILLER ST	OAKLAND	CITY LIMITS	874	24	AP	67	2" Mill & Overlay ^(1,2,3)	\$38,375	
MORGAN DR	LEXINGTON	RIDGE TREE	590	24	AP	100	Crack Seal	\$3,933	
MULBERRY CT	MULBERRY	END	136	24	AP	100	Crack Seal	\$907	
MULBERRY ST	COUNTRY CLUB	END	4700	24	AP	79	2" Mill & Overlay	\$85,653	CC to Birch
MULBERRY ST	END	END	601	24	AP	100	Crack Seal	\$4,007	New 2005
MYRTLE ST	7 HWY	EKLUND	1385	24	AP	83	Cape Seal	\$18,467	Underground spring
MYRTLE ST	7 HWY	END	3791	24	AP	89	Cape Seal ^(2,3)	\$97,847	Slurry Only 2 blocks
MYSTERY	SUGARLAND	WHISPER	1907	24		83	Cape Seal ⁽¹⁾	\$52,907	
NOTTINGHAM DR	TRAILRIDGE	WINCHESTER	965	24	AP	85	Cape Seal ⁽¹⁾	\$15,747	
OAK ST	WELSH	7 HWY	3610	24	AP	70	2" Mill & Overlay ^(1,2,3)	\$150,183	
OAKLAND ST	58 HWY	END	2191	24-18	AP-CS	74	2" Mill & Overlay ^(1,2,3)	\$83,179	
OAKVIEW	CANYON DR	END	295	24	AP	99	Crack Seal ⁽¹⁾	\$2,567	
OLD STAGE	WILDWOOD	COLONIAL	1612	26	AP	100	Crack Seal	\$11,642	
OLIVE ST	INDEPENDENCE	BOARDMAN	3031	24	AP	61	Reconstruction ^(2,3)	\$377,292	
OWEN DR.	RIDGE TREE LN	RAGAN	351	24	AP	100	Crack Seal	\$2,340	
OWEN DR.	RIDGE TREE DR	RAGAN	1037	24	AP	100	Crack Seal	\$6,913	
PAPAW LN	BUCKEYE	END	1362	24	AP	100	Crack Seal	\$9,080	New in 2006
PARK ST	HAWTHORNE	JONES	240	24	AP	90	Cape Seal ⁽¹⁾	\$5,000	
PATTERSON ST	PINE	END	658	24	AP	75	2" Mill & Overlay ^(1,2,3)	\$27,527	
PECAN DR	BUCKEYE	END	158	24	AP	100	Crack Seal	\$1,053	New in 2004 2006
PINE ST	7 HWY	COMMERCIAL	2179	24	AP	63	Reconstruction	\$244,048	
PINOAK	CYPRESS	END	249	24	AP	85	Cape Seal ⁽¹⁾	\$5,120	
RAGAN DR.	LEXINGTON	RIDGE TREE	772	24	AP	100	Crack Seal	\$5,147	
RANDOLPH ST	PINE	HARPER	2872	24	AP	78	2" Mill & Overlay ^(1,2,3)	\$117,227	
REDBUD AVE	LINCOLN	HILLCREST	480	24	AP	77	2" Mill & Overlay ⁽¹⁾	\$24,800	
REDWOOD CIR	MULBERRY	END	386	24	AP	93	Crack Seal	\$2,573	
REMINGTON	TRAILRIDGE	WINCHESTER	896	24	AP	77	2" Mill & Overlay ⁽¹⁾	\$43,093	
RENEE LYNDE DR	7 HWY	CHRISTOPHER	908	24	AP	81	Cape Seal ⁽²⁾	\$13,867	
RICE ST	7 HWY	END	1339	24	AP	85	Cape Seal ⁽¹⁾	\$20,853	
RICHLAND PARKWAY	WALKER	EAST END	1021	24	AP	96	Crack Seal ^(1,3)	\$37,557	
RICHLAND PARKWAY	WALKER	7 HWY	2000	24	AP	97	Crack Seal ^(2,3)	\$156,883	
RICHMOND DR	CARROL	RUSSELL	760	24	AP	93	Crack Seal ⁽²⁾	\$8,367	Slurry 2010
RIDGE TREE DR	RIDGE TREE LN	RAGAN	261	24	AP	100	Crack Seal	\$1,740	
RIDGE TREE DR	LEXINGTON	RAGAN	820	24	AP	100	Crack Seal	\$5,467	
RIDGETREE LANE	OWEN	RIDGE TREE	794	24	AP	100	Crack Seal	\$5,293	

ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit B



City of Pleasant Hill, Missouri

Rated by: City of Pleasant Hill

Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
RIFFLE DR	INGLESIDE	HIGHLAND	280	24	AP	100	Crack Seal	\$1,867	New 2005
RIFFLE DR	HIGHLAND	END	136	24	AP	100	Crack Seal	\$907	New 2005
RUSSELL RD	WRIGHT ST	LEXINGTON	3099	24	AP	95	Crack Seal	\$20,660	Slurry 2010
SECOND ST	WYOMING	COMMERCIAL	454	24	AP	88	Cape Seal ^(2,3)	\$11,711	
SHADY LN	CANYON DR	END	442	24	AP	82	Cape Seal ⁽¹⁾	\$12,253	
SHAGBARK LN	HILLCREST	END	658	24	AP	100	Crack Seal	\$4,387	
SITTER ST	PINE	END	681	24	AP	76	2" Mill & Overlay ^(1,2,3)	\$27,850	
SLOAN AVE	RUSSELL	END	930	24	AP	96	Crack Seal	\$6,200	
SOUTHVIEW TERR	SUGAR LAND	HIGHRIDGE	953	24	AP	76	2" Mill & Overlay ⁽¹⁾	\$56,613	
SPRING ST	WALKER	END	715	24	AP	95	Crack Seal ⁽³⁾	\$9,717	Slurry in 2006
STAFFORD DR	7 HWY	WEST	386	24	AP	81	Cape Seal ^(1,2,3)	\$39,047	
STONE ST	HWTHORNE	MAPLE	454	24	AP	77	2" Mill & Overlay ⁽¹⁾	\$24,107	
STRICTIS	WRIGHT ST	SOUTH END	614	24	AP	100	Crack Seal	\$4,093	
STRICTUS	WRIGHT ST	NORTH END	340	24	AP	100	Crack Seal	\$2,267	
SUGARLAND DR	SUGAR LAND PKWY	ROUTE 7	5530	24	AP	85	Cape Seal ⁽¹⁾	\$90,956	
SUGARLAND PKWY	SUGARLAND	END	862	26	AP	80	2" Mill & Overlay	\$42,124	
SUNSET CIRCLE	SUGARLAND DR	SUGARLAND DR	1101	24	AP	82	Cape Seal ⁽¹⁾	\$33,880	
SYCAMORE AVE	LEXINGTON	LINCOLN	1425	24	AP	77	2" Mill & Overlay ^(1,2,3)	\$62,610	
TALLGRASS	INDEPENDENCE	END	1542	24	AP	100	Crack Seal	\$10,280	
TAYLOR ST	PINE	NORTH END	3122	24	AP	71	2" Mill & Overlay ^(1,2,3)	\$143,663	
TEE ST	GOLFVIEW	END	147	24	AP	100	Crack Seal	\$980	New 2005
TERRY	163RD	FAITH	1548	24	AP	100	Crack Seal	\$10,320	
THOMAS	HENLY	FAITH	698	24	AP	100	Crack Seal	\$4,653	20' DROP
TIMBER ST	7 HWY	CAMPBELL	2384	24-16	AP-CS	78	2" Mill & Overlay ^(1,2,3)	\$86,428	
TRAILRIDGE	LEXINGTON	END	2841	24	AP	80	2" Mill & Overlay	\$75,760	
TRUMAN ST	SYCAMORE	MAPLE	420	24	AP	91	Cape Seal ⁽¹⁾	\$6,800	
VALLEY VIEW	MYSTERY	SUGARLAND	1771	24	AP	82	Cape Seal ⁽¹⁾	\$29,613	
VALLEYVIEW WEST	SUGARLAND	BREEZEWAY	1930	24	AP	90	Cape Seal ⁽¹⁾	\$42,413	
VANHOY	7HWY	SUGARLAND	1078	24	AP	88	Cape Seal ⁽¹⁾	\$29,895	
VERMONT ST	CLAY	END	452	24	AP	83	Cape Seal ^(1,2)	\$8,267	
VERMONT ST	BROADWAY	JACKSON	851	24	AP	95	Crack Seal ^(2,3)	\$28,823	
VETERAN'S PKWY	CEDAR	COMMERCIAL	601	24	AP	79	2" Mill & Overlay ⁽¹⁾	\$17,227	
WALKER RD	COLLEGE HILL	BROADWAY	1067	24	AP	82	Cape Seal ^(1,3)	\$22,827	
WALKER RD	BROADWAY	58 HWY	2316	24	AP	97	Crack Seal ^(1,2,3)	\$46,428	
WALNUT ST	58 HWY	END	488	24	AP	64	Reconstruction ^(2,3)	\$60,740	

ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit B



City of Pleasant Hill, Missouri

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Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
WASHINGTON ST	7 HWY	BENTON	896	24	AP	93	Crack Seal ^(1,2)	\$15,573	Slurry 2006
WEBSTER ST	58 HWY	HARRISON	647	24	AP	93	Crack Seal ^(2,3)	\$12,377	Flood Area
WELSH ST	OAK	CEDAR	363	24	AP	87	Cape Seal ⁽¹⁾	\$12,040	
WEST MAIN	FRONT	WALNUT	370	24	AP	73	2" Mill & Overlay ^(1,2,3)	\$16,863	
WHISPER	WHISPERING RIDGE	END	306	24	AP	100	Crack Seal ⁽¹⁾	\$2,040	
WHISPERING RIDGE	OLD STAGE	END	3830	24	AP	94	Crack Seal ⁽¹⁾	\$27,933	
WHITE OAK	CYPRESS	END	340	24	AP	95	Crack Seal	\$2,267	
WILDWOOD	7HWY	OLD STAGE	1532	24	AP	97	Crack Seal ⁽¹⁾	\$15,013	
WILLOW ST	INDEPENDENCE	7 HWY	408	24-16	AP	96	Crack Seal ⁽¹⁾	\$24,311	Heavy Trucks
WINCHESTER	END	END	1612	24	AP	80	2" Mill & Overlay ^(1,2)	\$51,507	
WOODLAWN	LEXINGTON	TRAILRIDGE	942	26	AP	82	Cape Seal ⁽¹⁾	\$25,607	
WRIGHT CIR	WRIGHT ST	END	132	24	AP	100	Crack Seal	\$880	
WRIGHT ST	7 HWY	END	2213	24	AP	69	2" Mill & Overlay ⁽¹⁾	\$95,013	
WRIGHT ST	7HWY	INDEPENCE	488	24	AP	100	Crack Seal	\$3,253	
WRIGHT ST	INDEPENDENCE	END	1535	24	AP	100	Crack Seal	\$10,233	

ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit C



City of Pleasant Hill, Missouri

Rated by: City of Pleasant Hill

Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
KELLOGG ST	INDEPENDENCE	CAMPBELL	2009	20	AP	55	Reconstruction	\$187,507	
HILLSIDE DR	BROADWAY	LOCUST	329	24	AP	60	Reconstruction ^(2,3)	\$60,474	
OLIVE ST	INDEPENDENCE	BOARDMAN	3031	24	AP	61	Reconstruction ^(2,3)	\$377,292	
PINE ST	7 HWY	COMMERCIAL	2179	24	AP	63	Reconstruction	\$244,048	
INDEPENDENCE	WRIGHT ST	WILLOW	999	24-16	AP-CS	64	Reconstruction	\$53,740	549' Reconstructed - 450' 3 yrs old
WALNUT ST	58 HWY	END	488	24	AP	64	Reconstruction ^(2,3)	\$60,740	
CHELSEA CIR	TRAILRIDGE	END	125	24	AP	65	Reconstruction	\$14,000	
LOCUST ST	7HWY	VETERANS	3042	24	AP	66	2" Mill & Overlay ⁽¹⁾	\$102,720	
MILLER ST	OAKLAND	CITY LIMITS	874	24	AP	67	2" Mill & Overlay ^(1,2,3)	\$38,375	
WRIGHT ST	7 HWY	END	2213	24	AP	69	2" Mill & Overlay ⁽¹⁾	\$95,013	
INDEPENDENCE	BROADWAY	TIMBER	3337	24	AP	70	2" Mill & Overlay ⁽¹⁾	\$116,587	
MCKISSOCK ST	LOCUST	NORTH END	2668	24	AP	70	2" Mill & Overlay ^(1,2,3)	\$116,487	
OAK ST	WELSH	7 HWY	3610	24	AP	70	2" Mill & Overlay ^(1,2,3)	\$150,183	
BIRCH ST	ASH	MULBERRY	1294	24	AP	71	2" Mill & Overlay ⁽¹⁾	\$41,707	
JEFFERSON ST	BALTIMORE	DELAWARE	283	24	AP	71	2" Mill & Overlay ⁽¹⁾	\$11,147	
TAYLOR ST	PINE	NORTH END	3122	24	AP	71	2" Mill & Overlay ^(1,2,3)	\$143,663	
BROADWAY ST	7 HWY	WALKER	1566	28	AP	72	2" Mill & Overlay ^(1,2,3)	\$71,864	
CHAPPELL DR	SPRING	BROADWAY	408	24	AP	72	2" Mill & Overlay ^(1,2,3)	\$30,090	
CYPRESS WY	LEXINGTON	CHESTNUT	1523	24	AP	72	2" Mill & Overlay ⁽¹⁾	\$62,669	
BENTON ST	PINE	END	1623	24	AP	73	2" Mill & Overlay ^(1,2,3)	\$82,930	
WEST MAIN	FRONT	WALNUT	370	24	AP	73	2" Mill & Overlay ^(1,2,3)	\$16,863	
CAMPBELL ST	PINE	KELLOGG	5177	24	AP	74	2" Mill & Overlay ^(1,2,3)	\$369,701	Kellogg to Harper - Reconstruction
OAKLAND ST	58 HWY	END	2191	24-18	AP-CS	74	2" Mill & Overlay ^(1,2,3)	\$83,179	
ASH ST	HICKORY HILLS	BIRCH	386	24	AP	75	2" Mill & Overlay ⁽¹⁾	\$13,893	
CLEARVIEW DR	BROADWAY	SOUTH	908	24	AP	75	2" Mill & Overlay ^(2,3)	\$59,313	
LOCUST ST	7 HWY	END	140	24	AP	75	2" Mill & Overlay ^(2,3)	\$13,793	
PATTERSON ST	PINE	END	658	24	AP	75	2" Mill & Overlay ^(1,2,3)	\$27,527	
COUNTRY CLUB DR	7 HWY	CITY LIMITS	6666	24	AP	76	2" Mill & Overlay	\$122,642	7 Hwy to Hillcrest
HAWTHORNE ST	STONE	PARK	1226	24	AP	76	2" Mill & Overlay ^(1,2)	\$49,073	
SITTER ST	PINE	END	681	24	AP	76	2" Mill & Overlay ^(1,2,3)	\$27,850	
SOUTHVIEW TERR	SUGAR LAND	HIGHRIDGE	953	24	AP	76	2" Mill & Overlay ⁽¹⁾	\$56,613	
REDBUD AVE	LINCOLN	HILLCREST	480	24	AP	77	2" Mill & Overlay ⁽¹⁾	\$24,800	
REMINGTON	TRAILRIDGE	WINCHESTER	896	24	AP	77	2" Mill & Overlay ⁽¹⁾	\$43,093	
STONE ST	HWTHORNE	MAPLE	454	24	AP	77	2" Mill & Overlay ⁽¹⁾	\$24,107	
SYCAMORE AVE	LEXINGTON	LINCOLN	1425	24	AP	77	2" Mill & Overlay ^(1,2,3)	\$62,610	

ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit C



City of Pleasant Hill, Missouri

Rated by: City of Pleasant Hill

Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
RANDOLPH ST	PINE	HARPER	2872	24	AP	78	2" Mill & Overlay ^(1,2,3)	\$117,227	
TIMBER ST	7 HWY	CAMPBELL	2384	24-16	AP-CS	78	2" Mill & Overlay ^(1,2,3)	\$86,428	
ARMSTRONG ST	PINE	TIMBER	3315	24	AP	79	2" Mill & Overlay ^(1,2,3)	\$138,710	
CREST DR	LEXINGTON	END	635	24	AP	79	2" Mill & Overlay ^(1,3)	\$22,533	
LEXINGTON	CHESTNUT DR	RTE VV	3080	24	AP	79	2" Mill & Overlay ⁽¹⁾	\$39,293	638' - 2" Mill & Overlay
MULBERRY ST	COUNTRY CLUB	END	4700	24	AP	79	2" Mill & Overlay	\$85,653	CC to Birch
VETERAN'S PKWY	CEDAR	COMMERCIAL	601	24	AP	79	2" Mill & Overlay ⁽¹⁾	\$17,227	
163RD	7HWY	ADDIE	450/408	24	AP/CS	80	2" Mill & Overlay	\$81,632	408' Chip & Seal needs repair
BALTIMORE ST	LEXINGTON	HILLCREST	1907	24	AP	80	2" Mill & Overlay	\$53,253	
CHRIS DR	SPRING	END	60	24	AP/ROCK	80	2" Mill & Overlay ⁽²⁾	\$1,820	
DELAWARE ST	7 HWY	HILLCREST	2238	24	AP	80	2" Mill & Overlay	\$32,420	875' (7 Hwy to Madison)
HORSESHOE DR	VALLEYVIEW WEST	END	1487	24	AP	80	2" Mill & Overlay	\$39,653	
JEFFREYS ST	PINE	NORTH END	2554	24	AP	80	2" Mill & Overlay ^(2,3)	\$99,987	
LAKE ST	CEDAR	NORTH END	1667	24	AP	80	2" Mill & Overlay ^(1,2,3)	\$72,427	
LAWNDALE AVE	COUNTRY CLUB	LINWOOD	2100	24	AP	80	2" Mill & Overlay	\$24,500	Hillcrest to CC - New 2007
LINWOOD ST	COUNTRY CLUB	HAMILTON	1612	24	AP	80	2" Mill & Overlay	\$45,987	
MADISON ST	DELAWARE	END	567	24	AP	80	2" Mill & Overlay	\$17,520	
SUGARLAND PKWY	SUGARLAND	END	862	26	AP	80	2" Mill & Overlay	\$42,124	
TRAILRIDGE	LEXINGTON	END	2841	24	AP	80	2" Mill & Overlay	\$75,760	
WINCHESTER	END	END	1612	24	AP	80	2" Mill & Overlay ^(1,2)	\$51,507	
BOARDMAN ST	PAUL STREET	CITY LIMITS	2997	24	AP	81	Cape Seal ^(1,3)	\$75,810	40% in flood area
RENEE LYNDE DR	7 HWY	CHRISTOPHER	908	24	AP	81	Cape Seal ⁽²⁾	\$13,867	
STAFFORD DR	7 HWY	WEST	386	24	AP	81	Cape Seal ^(1,2,3)	\$39,047	
COLLEGE HILL ST	7 HWY	WALKER	1453	24	AP	82	Cape Seal ⁽¹⁾	\$22,973	
HILLCREST DR	COUNTRY	REDBUD	2251	24	AP	82	Cape Seal ⁽¹⁾	\$33,613	Slurry 300' Only/Overlaid 2006
SHADY LN	CANYON DR	END	442	24	AP	82	Cape Seal ⁽¹⁾	\$12,253	
SUNSET CIRCLE	SUGARLAND DR	SUGARLAND DR	1101	24	AP	82	Cape Seal ⁽¹⁾	\$33,880	
VALLEY VIEW	MYSTERY	SUGARLAND	1771	24	AP	82	Cape Seal ⁽¹⁾	\$29,613	
WALKER RD	COLLEGE HILL	BROADWAY	1067	24	AP	82	Cape Seal ^(1,3)	\$22,827	
WOODLAWN	LEXINGTON	TRAILRIDGE	942	26	AP	82	Cape Seal ⁽¹⁾	\$25,607	
HIGH ST	7 HWY	ARMSTRONG	1317	24	AP	83	Cape Seal ^(1,2,3)	\$41,170	
MYRTLE ST	7 HWY	EKLUND	1385	24	AP	83	Cape Seal	\$18,467	Underground spring
MYSTERY	SUGARLAND	WHISPER	1907	24	AP	83	Cape Seal ⁽¹⁾	\$52,907	
VERMONT ST	CLAY	END	452	24	AP	83	Cape Seal ^(1,2)	\$8,267	
ANDREW	DEENA	END	601	24	AP	84	Cape Seal ⁽¹⁾	\$10,413	

ASPHALT PAVEMENT RATING

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Exhibit C



City of Pleasant Hill, Missouri

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SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
BREEZEWAY	VALLEYVIEW WEST	END	1135	24	AP	85	Cape Seal ⁽¹⁾	\$31,477	
CARROL DR	LEXINGTON	RUSSELL	1089	24	AP	85	Cape Seal	\$14,520	Slurry 2010
INDUSTRIAL	7 HWY	HIGH RIDGE	1030	23-34	AP	85	Cape Seal ⁽¹⁾	#VALUE!	
LAWNDALE	LINWOOD	MADISON	720	24	AP	85	Cape Seal	\$9,600	
LINCOLN ST	SYCAMORE	MAPLE	431	24	AP	85	Cape Seal ^(1,2)	\$24,627	Full Depth - r/r Spring
MADISON ST	LAWNDALE	DELAWARE	520	24	AP	85	Cape Seal	\$6,933	
NOTTINGHAM DR	TRAILRIDGE	WINCHESTER	965	24	AP	85	Cape Seal ⁽¹⁾	\$15,747	
PINOAK	CYPRESS	END	249	24	AP	85	Cape Seal ⁽¹⁾	\$5,120	
RICE ST	7 HWY	END	1339	24	AP	85	Cape Seal ⁽¹⁾	\$20,853	
SUGARLAND DR	SUGAR LAND PKWY	ROUTE 7	5530	24	AP	85	Cape Seal ⁽¹⁾	\$90,956	
CHESTNUT DR	RTE VV	LEXINGTON	1850	24	AP	86	Cape Seal	\$24,667	
DEER LN	CANYON DR	END	306	24	AP	86	Cape Seal ⁽¹⁾	\$8,880	
FRONT ST	HARRISON	END	1362	24	AP	86	Cape Seal ^(1,2,3)	\$36,312	
MATTHES LN	7 HWY	END	2713	24	AP	86	Cape Seal ⁽¹⁾	\$37,373	Slurry 2010
JOHNSON CIR	MAPLE	END	669	24	AP	87	Cape Seal ⁽¹⁾	\$16,120	
WELSH ST	OAK	CEDAR	363	24	AP	87	Cape Seal ⁽¹⁾	\$12,040	
CEDAR ST	7 HWY	WELSH	3598	36	AP	88	Cape Seal ⁽¹⁾	\$73,760	
FIRST ST	WYOMING	COMMERCIAL	454	24	AP	88	Cape Seal ⁽¹⁾	\$8,213	
HIDDEN VALLEY	SUGAR LAND	END	1464	24	AP	88	Cape Seal ⁽¹⁾	\$33,920	
JONES AVE	JOHNSON	PARK	510	24	AP	88	Cape Seal ⁽¹⁾	\$8,600	
SECOND ST	WYOMING	COMMERCIAL	454	24	AP	88	Cape Seal ^(2,3)	\$11,711	
VANHOY	7HWY	SUGARLAND	1078	24	AP	88	Cape Seal ⁽¹⁾	\$29,895	
CLAY CIR	CLAY	END	115	24	AP	89	Cape Seal ^(1,3)	\$4,733	
MYRTLE ST	7 HWY	END	3791	24	AP	89	Cape Seal ^(2,3)	\$97,847	Slurry Only 2 blocks
163RD	KNORPP	LEXINGTON	1328	24	ROCK	90	Cape Seal	\$17,707	
ADAMS CIR	MAPLE	END	1180	24	AP	90	Cape Seal ⁽¹⁾	\$19,333	
ALPINE DR	KENTUCKY	END	227	24	AP	90	Cape Seal	\$3,027	New 2003
BROADWAY ST	WALKER	EAST END	3675	24	AP	90	Cape Seal ^(1,3)	\$78,633	New 1998 Slurry
EKLUND DR	COUNTRY CLUB	MYRTLE	703	24	AP	90	Cape Seal ^(1,3)	\$16,073	
FOXTRAIL DR	TRAILRIDGE	END	708	24	AP	90	Cape Seal	\$9,440	New 2005
GOLFVIEW DR	COUNTRY CLUB	BROADWAY	3019	24	AP	90	Cape Seal	\$40,253	New 2005
KENTUCKY	TRAILRIDGE	ALPINE	1305	24	AP	90	Cape Seal	\$17,400	New 2005
PARK ST	HAWTHORNE	JONES	240	24	AP	90	Cape Seal ⁽¹⁾	\$5,000	
VALLEYVIEW WEST	SUGARLAND	BREEZEWAY	1930	24	AP	90	Cape Seal ⁽¹⁾	\$42,413	
TRUMAN ST	SYCAMORE	MAPLE	420	24	AP	91	Cape Seal ⁽¹⁾	\$6,800	

ASPHALT PAVEMENT RATING

Affinis Project No.: 08-0734.01

Exhibit C



City of Pleasant Hill, Missouri

Rated by: City of Pleasant Hill

Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
COACHMAN	COLONIAL	OLD STAGE	999	24	AP	92	Crack Seal	\$6,660	
COLONIAL	WILDWOOD	OLD STAGE	1648	24	AP	92	Crack Seal ⁽¹⁾	\$22,320	Coachman to Wild Wood-Mill & Overlay
ADDIE	163RD	FAITH	1135	24	AP	93	Crack Seal	\$7,567	
CANYON DR	VALLEY VIEW WEST	END	2032	24	AP	93	Crack Seal ⁽¹⁾	\$15,947	
HARPER ST	ARMSTRONG	TAYLOR	1407	24	AP	93	Crack Seal ^(1,2,3)	\$33,980	75% slurry 2006
MAPLE LN	7 HWY	END	2963	24	AP	93	Crack Seal ⁽¹⁾	\$23,353	
REDWOOD CIR	MULBERRY	END	386	24	AP	93	Crack Seal	\$2,573	
RICHMOND DR	CARROL	RUSSELL	760	24	AP	93	Crack Seal ⁽²⁾	\$8,367	Slurry 2010
WASHINGTON ST	7 HWY	BENTON	896	24	AP	93	Crack Seal ^(1,2)	\$15,573	Slurry 2006
WEBSTER ST	58 HWY	HARRISON	647	24	AP	93	Crack Seal ^(2,3)	\$12,377	Flood Area
CHRISTOPHER DR	HIGHLAND	END	832	24	AP	94	Crack Seal ⁽²⁾	\$6,207	
JACKSON ST	CLINE	BENTON	613	24	AP	94	Crack Seal ⁽³⁾	\$8,237	
LITTLE BEND CT	VALLYEVIEW WEST	VALLEYVIEW WEST	238	24	AP	94	Crack Seal ⁽¹⁾	\$7,347	
WHISPERING RIDGE	OLD STAGE	END	3830	24	AP	94	Crack Seal ⁽¹⁾	\$27,933	
163RD	LEXINGTON	7HWY	2622	24	CS	95	Crack Seal	\$17,480	
CLINE ST	BROADWAY	JACKSON	840	24	AP	95	Crack Seal ^(2,3)	\$29,050	
COTTONWOOD AVE	ADAMS CIR	END	905	24	AP	95	Crack Seal	\$6,033	
LEXINGTON	COLLEGE HILL	CHESTNUT DR	8190	30	AP	95	Crack Seal	\$126,350	2204' - 2" Mill & Overlay
RUSSELL RD	WRIGHT ST	LEXINGTON	3099	24	AP	95	Crack Seal	\$20,660	Slurry 2010
SPRING ST	WALKER	END	715	24	AP	95	Crack Seal ⁽³⁾	\$9,717	Slurry in 2006
VERMONT ST	BROADWAY	JACKSON	851	24	AP	95	Crack Seal ^(2,3)	\$28,823	
WHITE OAK	CYPRESS	END	340	24	AP	95	Crack Seal	\$2,267	
ALICE AVE	BRIDGET	MATTHES LN	908	24	AP	96	Crack Seal ⁽¹⁾	\$6,653	
JAY	MATTHES LN	END	193	24	AP	96	Crack Seal ⁽¹⁾	\$3,087	
RICHLAND PARKWAY	WALKER	EAST END	1021	24	AP	96	Crack Seal ^(1,3)	\$37,557	
SLOAN AVE	RUSSELL	END	930	24	AP	96	Crack Seal	\$6,200	
WILLOW ST	INDEPENDENCE	7 HWY	408	24-16	AP	96	Crack Seal ⁽¹⁾	\$24,311	Heavy Trucks
HIGH RIDGE	INDUSTRIAL	SUGARLAND	794	24	AP	97	Crack Seal ⁽¹⁾	\$6,493	
RICHLAND PARKWAY	WALKER	7 HWY	2000	24	AP	97	Crack Seal ^(2,3)	\$156,883	
WALKER RD	BROADWAY	58 HWY	2316	24	AP	97	Crack Seal ^(1,2,3)	\$46,428	
WILDWOOD	7HWY	OLD STAGE	1532	24	AP	97	Crack Seal ⁽¹⁾	\$15,013	
163RD	ADDIE	BOARDMAN	3200	26	AP	98	Crack Seal	\$23,111	
ASHFORD	CHESTNUT	CYPRESS	806	24	AP	98	Crack Seal	\$5,373	
DEENA	END	END	442	24	AP	98	Crack Seal ⁽¹⁾	\$6,547	
LEE LN	CARROL	RUSSELL	1146	24	AP	98	Crack Seal	\$7,640	Slurry 2010

ASPHALT PAVEMENT RATING

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City of Pleasant Hill, Missouri

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Date: 10/28/2008

SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
AUSTIN AVE	SLOAN	ALICE	329	24	AP	99	Crack Seal	\$2,193	
BRIDGET BLV	SLOAN	MATTHES LN	828	24	AP	99	Crack Seal ⁽¹⁾	\$6,120	
MAGGIE LN	RENEE LYNDE	END	90	24	AP	99	Crack Seal	\$600	
OAKVIEW	CANYON DR	END	295	24	AP	99	Crack Seal ⁽¹⁾	\$2,567	
BIRDIE DR	CHAMPION	EAGLE	465	24	AP	100	Crack Seal	\$3,100	New 2005
BUCKEYE LN	PAPAW	END	4405	24	AP	100	Crack Seal	\$29,367	New in 2004 2006
CHAMPION DR	GOLFVIEW	END	454	24	AP	100	Crack Seal	\$3,027	New 2005
EAGLE DR	GOLFVIEW	END	454	24	AP	100	Crack Seal	\$3,027	New 2005
ELIZABETH LN	ALICE	END	215	24	AP	100	Crack Seal	\$1,433	
ELM CIR	COTTONWOOD	END	158	24	AP	100	Crack Seal	\$1,053	
FAIRGROUND CIR	FAIRGROUND	END	295	24	AP	100	Crack Seal	\$1,967	
FAIRGROUND DR	VANHOY	END	703	24	AP	100	Crack Seal	\$4,687	
FAIRWAY CT	GOLFVIEW	END	363	24	AP	100	Crack Seal	\$2,420	New 2005
FAITH	ADDIE	TERRY	883	24	AP	100	Crack Seal	\$5,887	
HAMILTON ST	LINWOOD	MADISON	828	24	AP	100	Crack Seal	\$5,520	
HENLEY	TERRY	7 HWY	1663	24	AP	100	Crack Seal	\$11,087	
HICKORY HILLS DR	COUNTRY CLUB	END	1010	24	AP	100	Crack Seal	\$6,733	
HIGHLAND ST	CHRISTOPHER	RIFFLE	420	24	AP	100	Crack Seal	\$2,800	New 2005
INGLE SIDE DR	RIFFLE	CHRISTOPHER	420	24	AP	100	Crack Seal	\$2,800	New 2005
LEXINGTON	RTE VV	163 ST	1578	24	AP	100	Crack Seal	\$10,520	
LOGAN DR	OWEN	RIDGE TREE	500	24	AP	100	Crack Seal	\$3,333	
MADISON ST	HAMILTON	MAPLE	340	24	AP	100	Crack Seal	\$2,267	New 2007
MAIN ST	RICHLAND	NORTH END	420	24	AP	100	Crack Seal	\$2,800	New 2007
MAIN ST	RICHLAND	SOUTH END	660	24	AP	100	Crack Seal ^(1,3)	\$49,590	New 2008
MEADOW LN	MULBERRY	KENTUCKY	442	24	AP	100	Crack Seal	\$2,947	New 2005
MORGAN DR	LEXINGTON	RIDGE TREE	590	24	AP	100	Crack Seal	\$3,933	
MULBERRY CT	MULBERRY	END	136	24	AP	100	Crack Seal	\$907	
MULBERRY ST	END	END	601	24	AP	100	Crack Seal	\$4,007	New 2005
OLD STAGE	WILDWOOD	COLONIAL	1612	26	AP	100	Crack Seal	\$11,642	
OWEN DR.	RIDGE TREE LN	RAGAN	351	24	AP	100	Crack Seal	\$2,340	
OWEN DR.	RIDGE TREE DR	RAGAN	1037	24	AP	100	Crack Seal	\$6,913	
PAPAW LN	BUCKEYE	END	1362	24	AP	100	Crack Seal	\$9,080	New in 2006
PECAN DR	BUCKEYE	END	158	24	AP	100	Crack Seal	\$1,053	New in 2004 2006
RAGAN DR.	LEXINGTON	RIDGE TREE	772	24	AP	100	Crack Seal	\$5,147	
RIDGE TREE DR	RIDGE TREE LN	RAGAN	261	24	AP	100	Crack Seal	\$1,740	

ASPHALT PAVEMENT RATING

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Exhibit C

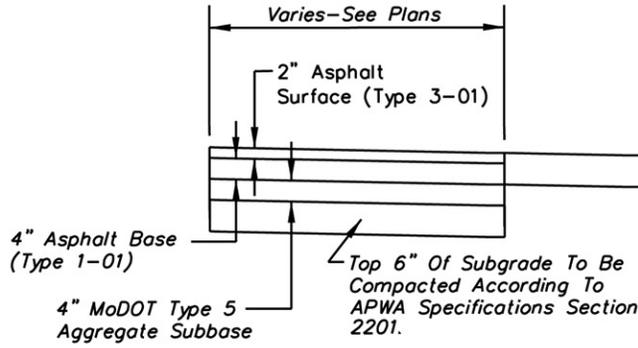


City of Pleasant Hill, Missouri

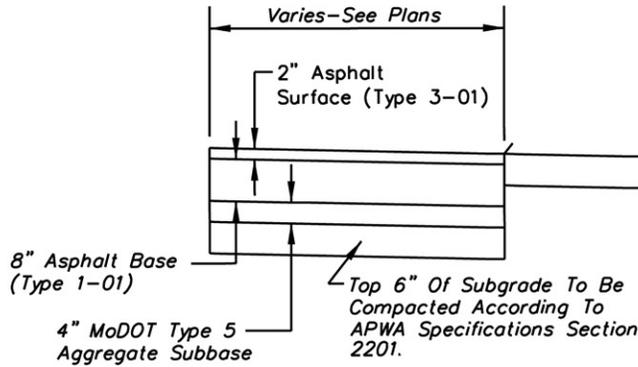
Rated by: City of Pleasant Hill

Date: 10/28/2008

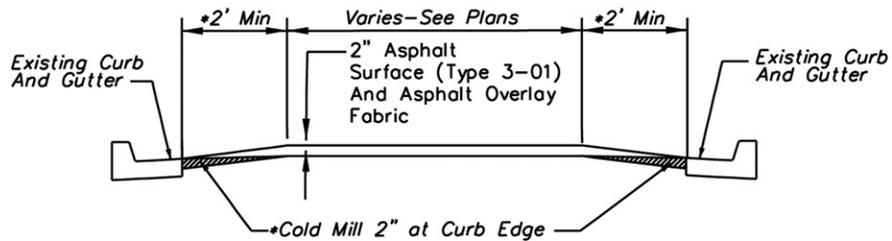
SIDE STREET	From	To	LENGTH	WIDTH	MATERIAL TYPE	COND. INDEX (C.I.)	RECOMMENDED	ESTIMATED COST	COMMENTS
RIDGE TREE DR	LEXINGTON	RAGAN	820	24	AP	100	Crack Seal	\$5,467	
RIDGETREE LANE	OWEN	RIDGE TREE	794	24	AP	100	Crack Seal	\$5,293	
RIFFLE DR	INGLESIDE	HIGHLAND	280	24	AP	100	Crack Seal	\$1,867	New 2005
RIFFLE DR	HIGHLAND	END	136	24	AP	100	Crack Seal	\$907	New 2005
SHAGBARK LN	HILLCREST	END	658	24	AP	100	Crack Seal	\$4,387	
STRICTIS	WRIGHT ST	SOUTH END	614	24	AP	100	Crack Seal	\$4,093	
STRICTUS	WRIGHT ST	NORTH END	340	24	AP	100	Crack Seal	\$2,267	
TALLGRASS	INDEPENDENCE	END	1542	24	AP	100	Crack Seal	\$10,280	
TEE ST	GOLFVIEW	END	147	24	AP	100	Crack Seal	\$980	New 2005
TERRY	163RD	FAITH	1548	24	AP	100	Crack Seal	\$10,320	
THOMAS	HENLY	FAITH	698	24	AP	100	Crack Seal	\$4,653	20' DROP
WHISPER	WHISPERING RIDGE	END	306	24	AP	100	Crack Seal ⁽¹⁾	\$2,040	
WRIGHT CIR	WRIGHT ST	END	132	24	AP	100	Crack Seal	\$880	
WRIGHT ST	7HWY	INDEPENCE	488	24	AP	100	Crack Seal	\$3,253	
WRIGHT ST	INDEPENDENCE	END	1535	24	AP	100	Crack Seal	\$10,233	



FULL DEPTH RECONSTRUCTION
6" PAVEMENT
 RESIDENTIAL STREET



FULL DEPTH RECONSTRUCTION
10" PAVEMENT
 MAJOR STREETS WITH TRUCK TRAFFIC



COLD MILL AND 2" OVERLAY - NEW SURFACE
 TYPICAL SECTION