OAK STREET – 23RD STREET TO 24TH STREET

RECOMMENDATIONS

Pavement Maintenance Options (Short-Term)

These options are not available for this street because of structural deficiencies and/or pavement cracking condition.

Pavement Rehabilitation Options (Long-Term)

Overlay Options

For option 1, we recommend 4 inch digouts for base failures, placing a 1-1/4 inch HMA leveling course and a 2 inch RHMA overlay.

Estimated Cost: $108,000 Estimated Life Expectancy: 10-12 Years

An overlay using HMA is not recommended because the 5-1/4 inch structural requirement exceeds the 3-1/2 inch maximum overlay considered feasible to meet geometric constraints.

Recycle and Mill and Replace Options

These options are not available for this street because of the structural deficiencies and thin pavement layer.

Reconstruction Options

For option 1, we recommend removing the pavement to a depth of 6 inches and placing 6 inches of new HMA. The HMA should be placed in 2 lifts.

Estimated Cost: $154,000 Estimated Life Expectancy: 20 Years

Reconstruction using soil treatment is not recommended because of the higher R-value soil.

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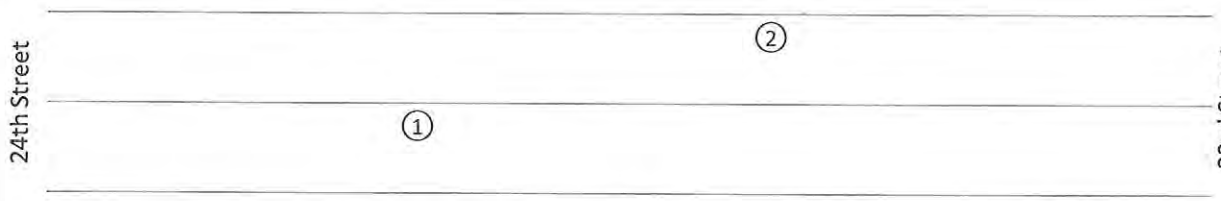

NOTES:
- NTS
- ACTUAL ROAD MAY NOT BE STRAIGHT
- NOT ALL ROADS CONNECTING TO THIS STREET ARE SHOWN
- WIDTH OF ROAD MAY VARY WITHIN THE BOUNDARY SECTION
- ALL LOCATIONS SHOWN ARE APPROXIMATED

Oak Street

[Section of Road ≈ 330ft]

TRAFFIC LAYOUT:
- 2-WAY STREET
- 1 LANE EACH WAY

VISUAL DESCRIPTION FOR THIS SECTION OF ROAD

The pavement exhibits block shrinkage cracking and continuous alligator cracking. Previous maintance includes a slurry seal.

CORING LOG

Symbol	Location	Core Data		R-value
1	North of 23rd Street 125ft	AC AB	3.00" NO BASE	48
2	North of 23rd Street 225ft	AC AB	2.75" NO BASE	-

DEFLECTION ANALYSIS

Lane	Tolerable	TI	80th Percentile	Percent Reduction	HMA Overlay
North Bound	28	7.0	69.52	59.72	5.28 - inches
South Bound	28	7.0	66.64	57.98	5.16 - inches
				Overlay Required by Reflective Cracking	1.50 - inches

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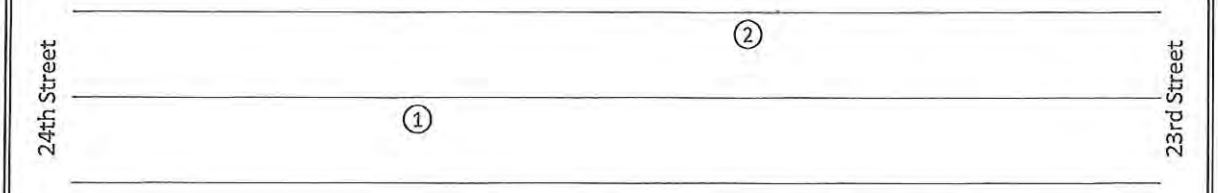

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Oak Street

[Section of Road ≈ 330ft]

N

TRAFFIC LAYOUT:
- 2-WAY STREET
- 1 LANE EACH WAY

VISUAL DESCRIPTION FOR THIS SECTION OF ROAD

CORING LOG

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1	North of 23rd Street 125ft	AC 3.00" AB NO BASE	48
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PHOTO LOG

Symbol	Location	Comments
A	_____ of _____ _____ft	
B	_____ of _____ _____ft	
C	_____ of _____ _____ft	

DEFLECTION ANALYSIS

Lane	Tolerable	TI	80th Percentile	Percent Reduction	HMA Overlay
North Bound	28	7.0	69.52	59.72	5.28 - Inches
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City of Paso Robles

Road: Oak Street
From: 24th
To: 23rd
Lane/Line: SB

Survey Date: 03/14/13
Thickness: 0.25
Traffic Index: 7.00
Project Number: 130065

Deflection Data Analysis

Deflection Readings (Equivalent Deflectometer Units)

No. of Tests	Low	Mean	High	Std. Dev.
11	47.37	58.98	74.59	9.12

Road Surface

Thickness	Traffic Index
0.25	7.00

Structural Design

Tolerable	80th Percentile	90th Percentile	% Reduction	GE Deficient
28.00	66.64	70.65	57.98	0.81

HMA Overlay
0.43

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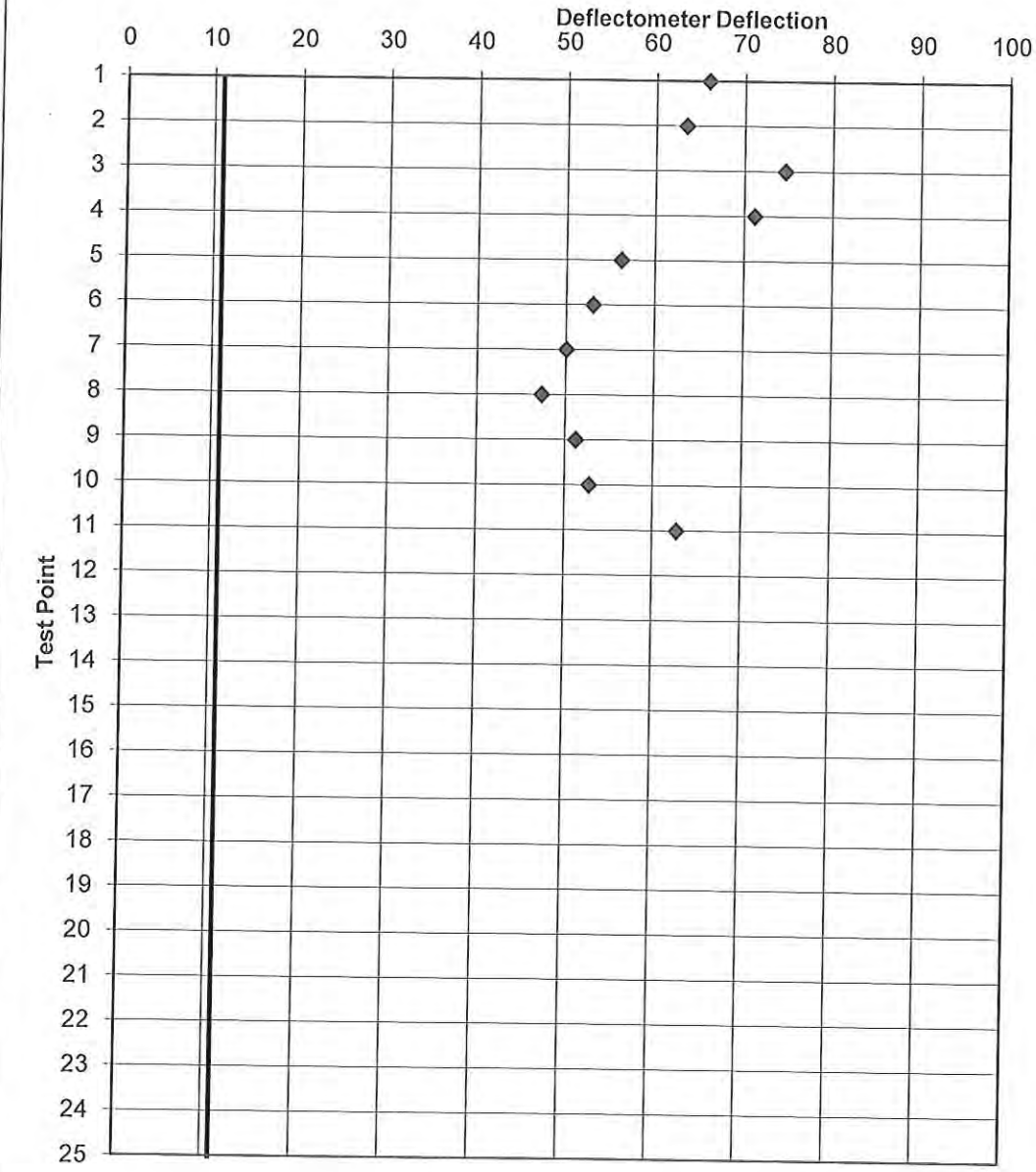

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Date: 3/27/2013

Client: City of Paso Robles
Road: Oak Street
From: 24th
To: 23rd
Lane/Line: SB

Interval: 30
Survey Date: 3/14/13
Thickness: 0.25
Traffic Index: 7.00
Project Number: 130065

Test Points	Dynaflect	Conditions	Comments	Deflection	Exclude
1	2.93			65.972	
2	2.82			63.476	
3	3.31			74.593	
4	3.16			71.190	
5	2.50			56.216	
6	2.36			53.040	
7	2.23			50.091	
8	2.11			47.369	
9	2.28			51.225	
10	2.35			52.814	
11	2.79			62.796	

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03/27/13

City of Paso Robles

Road: Oak Street
From: 23rd
To: 24th
Lane/Line: NB

Survey Date: 03/14/13
Thickness: 0.25
Traffic Index: 7.00
Project Number: 130065

Deflection Data Analysis

Deflection Readings (Equivalent Deflectometer Units)

No. of Tests	Low	Mean	High	Std. Dev.
11	52.81	65.54	70.74	4.74

Road Surface

Thickness	Traffic Index
0.25	7.00

Structural Design

Tolerable	80th Percentile	90th Percentile	% Reduction	GE Deficient
28.00	69.52	71.60	59.72	0.84

HMA Overlay
0.44

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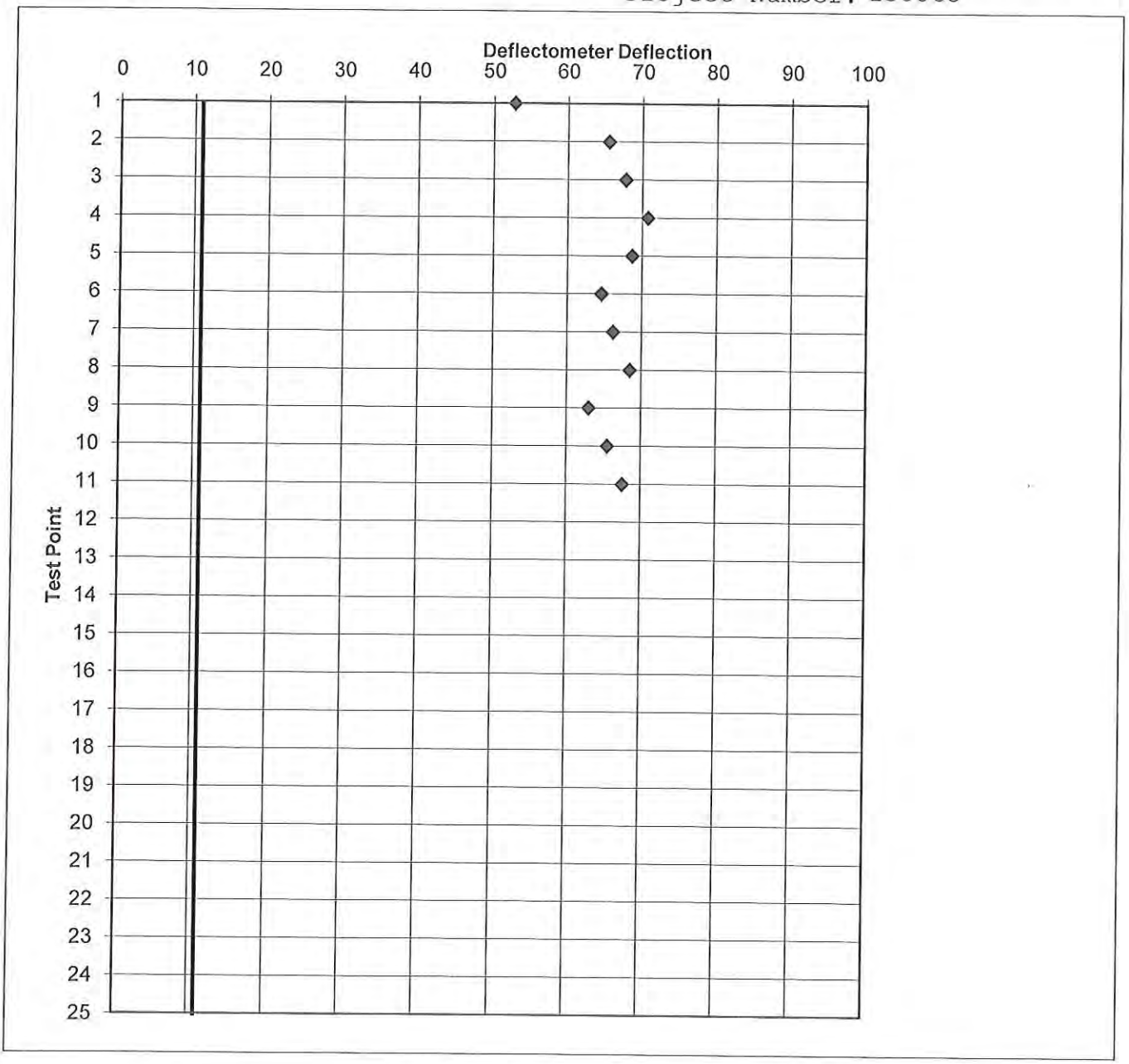

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Date: 3/27/2013

Client: City of Paso Robles
Road: Oak Street
From: 23rd
To: 24th
Lane/Line: NB

Interval: 30
Survey Date: 3/14/13
Thickness: 0.25
Traffic Index: 7.00
Project Number: 130065

Test Points	Dynaflect	Conditions	Comments	Deflection	Exclude
1	2.35			52.814	
2	2.91			65.518	
3	3.01			67.787	
4	3.14			70.736	
5	3.05			68.694	
6	2.87			64.611	
7	2.94			66.199	
8	3.04			68.467	
9	2.80			63.022	
10	2.91			65.518	
11	3.00			67.560	

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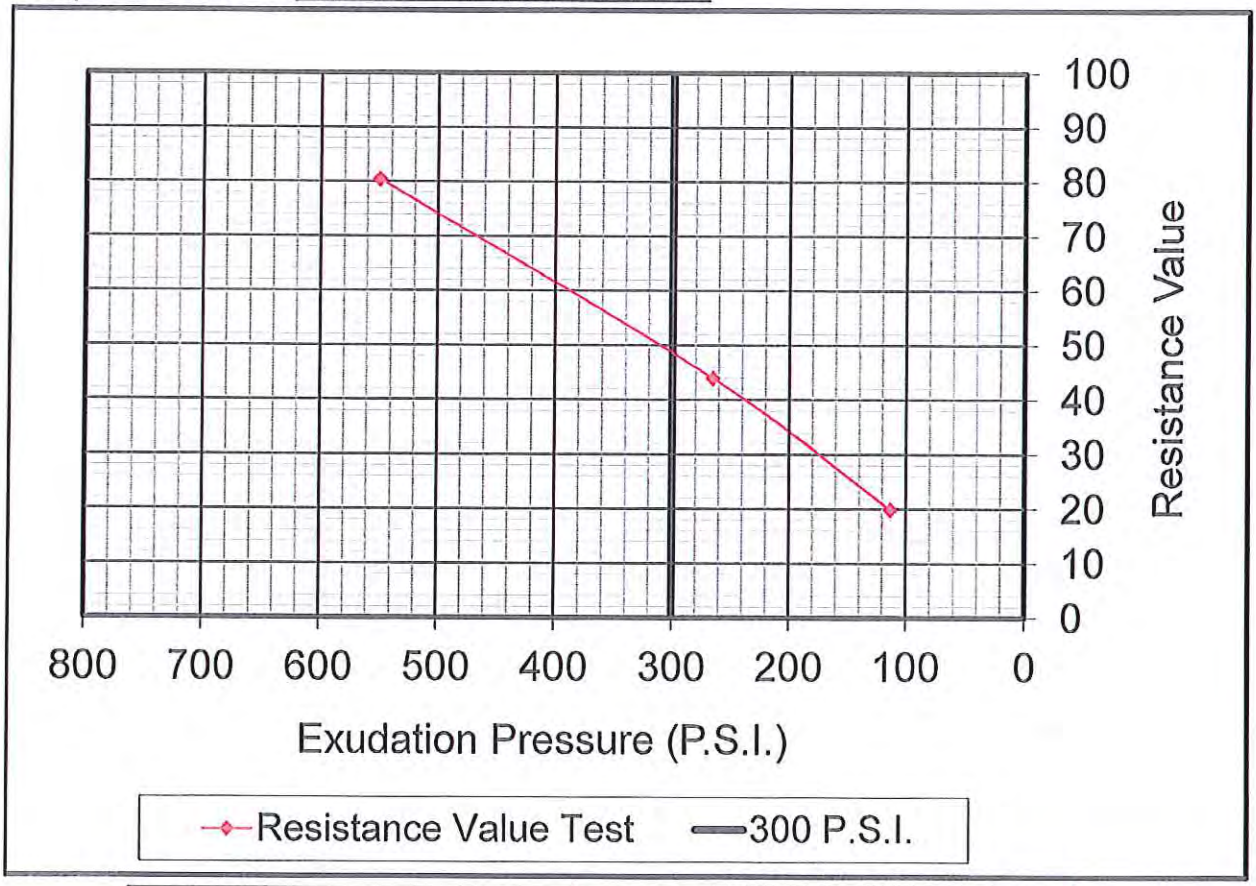
RESISTANCE (R) VALUE TEST

ASTM D 2844

Laboratory No.:	L130083Q
Project No.:	130065
Sample Date:	March 14, 2013
Report Date:	March 25, 2013
Client:	City of Paso Robles
Project Name:	City of Paso Robles 2013 Pavement Analysis
Sample Description:	Dark Brown Clayey Sand with Gravel
Sample Location:	Oak Street - 125' North of 23rd Street



Specimen No.	1	2	3
Moisture Content (%)	30.5	31.4	29.6
Dry Density (PCF)	84.7	84.0	84.9
Resistance Value (R)	44	20	80
Exudation Pressure (PSI)	266	114	550
Expansion Pressure	17	9	35

RESISTANCE VALUE AT 300 P.S.I. 48

AAPTO R18

Reviewed By: Craig Long

Craig W. Long
Laboratory Operations Manager

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OAK STREET – 23RD STREET TO 24TH STREET
24th Street looking Southbound

OAK STREET – 23RD STREET TO 24TH STREET
23rd Street looking Northbound