# Performance Analysis of an Experimental Field Project Utilizing Asphalt Modifiers

## *Final Report*


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Prepared for:

STATE of MONTANA
DEPARTMENT of TRANSPORTATION
RESEARCH, DEVELOPMENT, and TECHNOLOGY
TRANSFER PROGRAM
in cooperation with the
U.S. DEPARTMENT of TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

March, 1997

**Technical Report Documentation Page**

| 1. Report No. | 2. Government Accession No. | 3. Recipient's Catalog No. |
|---|---|---|
| **FHWA/MT - 96/8911** | | |

| 4. Title and Subtitle | 5. Report Date |
|---|---|
| **Performance Analysis of an Field Experimental Project Utilizing Asphalt Modifiers** | **March, 1997** |
| | 6. Performing Organization Code |
| 7. Author(s) **David R. Johnson** | 8. Performing Organization Report No. |
| 9. Performing Organization Name and Address **Department of Civil Engineering 205 Cobleigh Hall Montana State University Bozeman, Montana 59717** | 10. Work Unit No. (TRAIS) |
| | 11. Contract or Grant No. **MSU G&C # 291257 MDT Project # 8911** |
| 12. Sponsoring Agency Name and Address **Montana Department of Transportation 2701 Prospect Helena, Montana 59620-1001** | 13. Type of Report and Period Covered **Final Aug. 1989 - March 1997** |
| | 14. Sponsoring Agency Code **5401** |

15. Supplementary Notes

**Research performed in cooperation with the Montana Department of Transportation and the U.S. Department Transportation, Federal Highway Administration.**

16. Abstract

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**This report focuses on results of the five year monitoring of the polymer modified test sections. A summarization of the interim reports is included. The findings of this study indicate that utilization of polymer modifiers has quantifiable benefits. These benefits extend beyond improvements in resistance to rutting and cracking, and into resistance to raveling, weathering, and bleeding.**

| 17. Key Words | 18. Distribution Statement |
|---|---|
| **Rutting, Cracking, Raveling, Weathering, Bleeding, Prophilograph, Kraton, Polybilt, Polymer Modifiers, Montana** | **No restrictions. This document is available to the public through NTIS: Springfield, Virginia 22161** |

| 19. Security Classif. (of this report) | 20. Security Classif. (of this page) | 21. No. of Pages | 22. Price |
|---|---|---|---|
| **Unclassified** | **Unclassified** | **194** | |

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## ACKNOWLEDGMENTS

The author would like to extend his appreciation to the following individuals for their participation and aid in the successful completion of this project:

Robert Garber, Montana Department of Transportation - Research

Michael "Mick" Johnson, Montana Department of Transportation - Glendive

Dr. Murari Man Pradhan, Utah Department of Transportation

Dr. Joseph D. Armijo, Montana State University, Retired

Dr. John Mounce, Montana State University

Dr. Jerry Stephens, Montana State University

Dr. Ramzi Taha, Montana State University

Allen Aksamit, Randy Carroll, David Dust

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# ABSTRACT

Utilization of a mix design that will resist rutting and cracking is crucial to the life expectancy of a pavement. Drainage problems associated with these distresses contribute to safety problems and accelerated pavement deterioration. In an effort to combat rutting and cracking in Montana, a series of experimental test sections utilizing polymer modifiers were installed in 1991 along the I-94 Prairie County Line West Project, in eastern Montana. These sections were to be monitored for a period of five years by Montana State University - Bozeman.

This report focuses on results of the five year monitoring of the polymer modified test sections. A summarization of the interim reports is included. The findings of this study indicate that utilization of polymer modifiers has quantifiable benefits. These benefits extend beyond improvements in resistance to rutting and cracking, and into resistance to raveling, weathering, and bleeding.

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# INTRODUCTION

In pursuit of solutions to problems of rutting and cracking of asphalt pavements, the Montana Department of Transportation (MDT) contracted with the Department of Civil Engineering of Montana State University - Bozeman (MSU), in 1988, to investigate asphalt modifiers. Laboratory testing of 120/150 penetration grade samples from four Montana refineries, incorporating six separate commercial modifiers, were evaluated during the interval July 1, 1988, to April 1, 1989. A direct consequence of the positive results from the laboratory work, was the implementation of this field study. All of the modified asphalts, irrespective of utilized combination of modifier-asphalt, outperformed the unmodified asphalts tested. Two of those modifiers were selected for inclusion in the field study based on their performance in the lab study. Those modifiers were Kraton D4141G from Shell Chemical Company, and Exxon's Polybilt X-1. (*1*)

The objective of field study was to develop an implementation plan that could be used in establishing an experimental project, utilizing asphalt modifiers. The plan would provide detailed recommendations for construction of pavement test sections, emphasizing normal construction practices to the extent possible. The other objective of the implementation plan was to establish procedures for monitoring the project. Monitoring phases included a pre-construction, construction, original condition, and post-construction surveys at specified intervals for a period of five years. The fourth year evaluation was omitted as there appeared to be no change in pavement condition when compared to the third year evaluation.

The pre-construction pavement surface condition survey included the selection of the profilograph test stations, profilograph data collection at those stations, and pavement surface cracks surveys. A Rainhart Transverse Profilograph (Austin, TX) was used for the surveying and monitoring of the pavement.

Monitoring of construction activities consisted of recording of the production of modified asphalt, asphalt-aggregate mix temperatures, recording placement and rolling performance of the mix, and extensive photography of operations. Equipment utilization was noted, and any special deviations from normal paving operations were detailed, i.e. mixing requirements, lay-down temperatures, rolling effort and patterns.

Following construction, initial conditions were surveyed to determine pre-traffic rutting and surface conditions. While overall conditions were noted, rutting measurements were done at selected locations. String-line and leveling techniques were used at referenced transect locations. The number of transects were sufficient to adequately represent the condition of the test sections. Again photographs were utilized as well as established pavement management techniques for assessing surface conditions.

For a five year period after construction, monitoring of the experimental project was done at a fixed time each year, in the summer. Rutting measurements were taken at this time. A distress survey was also completed as part of the evaluation.

## Test Section

A section of Interstate Highway I-94 was selected as the experimental test section and identified by Federal Aid Project No. IR 94-5(25)185, Plant Mix Overlay, Prairie County Line-West Prairie County. The total length of the project was 6.7 miles, one half in the eastbound lane and another half in the westbound lane. Each half section contains a section of Kraton D4141G modified asphalt, a control section, and a section of Polybilt X-1 modified asphalt. Asphalt type for the control, as found in Table 1, was selected by the contractor. Table 2 provides a detailed explanation of the layout of the MSU stations. It includes the MDT station number, modifier used, and direction of traffic.

**Table 1:** Station, Length, and Asphalt Binder on East and Westbound Lanes

| Station | Length (feet) | Binder on Eastbound Lane | Binder on Westbound Lane |
|---|---|---|---|
| 2126+92 to 2174+73 | 4781 | Polybilt Modified Asphalt | Kraton Modified Asphalt |
| 2174+73 to 2204+73 | 3000 | 85/100 Exxon Asphalt | 85/100 Exxon Asphalt |
| 2204+73 to 2264+25 | 5952 | Kraton Modified Asphalt | Polybilt Modified Asphalt |

**Table 2:** Station Layout.

| MSU Stations | MDT Station | Westbound Binder | Eastbound Binder |
|---|---|---|---|
| 1-52 | 2260+00 | Polybilt | Kraton |
| 2-51 | 2254+00 | Polybilt | Kraton |
| 3-50 | 2250+00 | Polybilt | Kraton |
| 4-49 | 2244+00 | Polybilt | Kraton |
| 5-48 | 2238+00 | Polybilt | Kraton |
| 6-47 | 2232+00 | Polybilt | Kraton |
| 7-46 | 2226+00 | Polybilt | Kraton |
| 8-45 | 2220+00 | Polybilt | Kraton |
| 9-44 | 2214+00 | Polybilt | Kraton |
| 10-43 | 2208+00 | Polybilt | Kraton |
| 11-42 | 2200+00 | Exxon | Exxon |
| 12-41 | 2196+00 | Exxon | Exxon |
| 13-40 | 2192+00 | Exxon | Exxon |
| 14-39 | 2188+00 | Exxon | Exxon |
| 15-38 | 2184+00 | Exxon | Exxon |
| 16-37 | 2180+00 | Exxon | Exxon |
| 17-36 | 2176+00 | Exxon | Exxon |
| 18-35 | 2170+00 | Kraton | Polybilt |
| 19-34 | 2164+00 | Kraton | Polybilt |
| 20-33 | 2160+00 | Kraton | Polybilt |
| 21-32 | 2154+00 | Kraton | Polybilt |
| 22-31 | 2150+00 | Kraton | Polybilt |
| 23-30 | 2144+00 | Kraton | Polybilt |
| 24-29 | 2138+00 | Kraton | Polybilt |
| 25-28 | 2134+00 | Kraton | Polybilt |
| 26-27 | 2130+00 | Kraton | Polybilt |

The test section is near Fallon, about twenty-seven miles west of Glendive. This region experiences diverse climatic conditions annually. The area exceeds 90° F an average of forty-four days annually. Monthly highs average 81.1° F, 89.4° F, and 88.5° F for June, July and August respectively. Daily lows fall below 0° F, an average of thirty-five days annually. Average lows in December, January and February are 21.4° F, 13.5° F, and 21.8° F, respectively. The annual precipitation is about ten inches. The elevation of the area is about 2200 feet (Glendive is 2076 feet). (*2*)

The average daily traffic (ADT) on this section of I-94 was 3128, 2820, 2490, 2470, 2210, and 2650 in the years from 1990 to 1995. Commercial vehicles numbered 628, 620, 649,

634, 610, and 749 over the same period. The total ADT consists of nearly twenty-five percent commercial vehicles. The percent of the ADT taken over the months of June, July, and August is about 135 percent of the ADT taken over the total year.(*3*)

The pavement surface in the test section exhibited visible rutting, cracking, and bleeding (Photo A - Appendix A). Most of the thermal transverse cracks ran the full width of the pavement. The crack maintenance was apparent from the sealed cracks (Photo B - Appendix A). The driving and passing lanes each displayed contrasting appearances. The driving lane was black from recent maintenance activities, including chip sealing and fine layer overlays to cover the ruts in the original pavement surface (Photo C - Appendix A). The surface was worn exposing coarse aggregates which were glossy in appearance and smooth to the touch. Most wheel paths on the driving lane were bleeding, and isolated patches of bleeding on the passing lane were noticed. During an observed rain, water ran in the ruts along the pavement surface in a longitudinal direction. In addition, some water pools were noticed on the pavement.

The test section consists of about three miles on the eastbound lane and about three miles on the westbound lane of Interstate Highway I-94. Table 1 shows the lengths and locations of the highway overlays and utilized binder within a section for both eastbound and westbound lanes. The detail of the layout of the test section and location of the test sections with different binders are shown in Figure 1.

The pavement overlay thickness consisted of 0.50 ft. of plant mix bituminous base and 0.20 ft. of plant mix bituminous surface (PMBS). Twenty hundredths of the driving lane was trenched by a cold milling machine and was back filled with the respective PMBS as the overlay material. A final overlay of 0.35 ft. PMBS was then placed in two lifts. Figure 2 shows the typical cross section of the pavement.

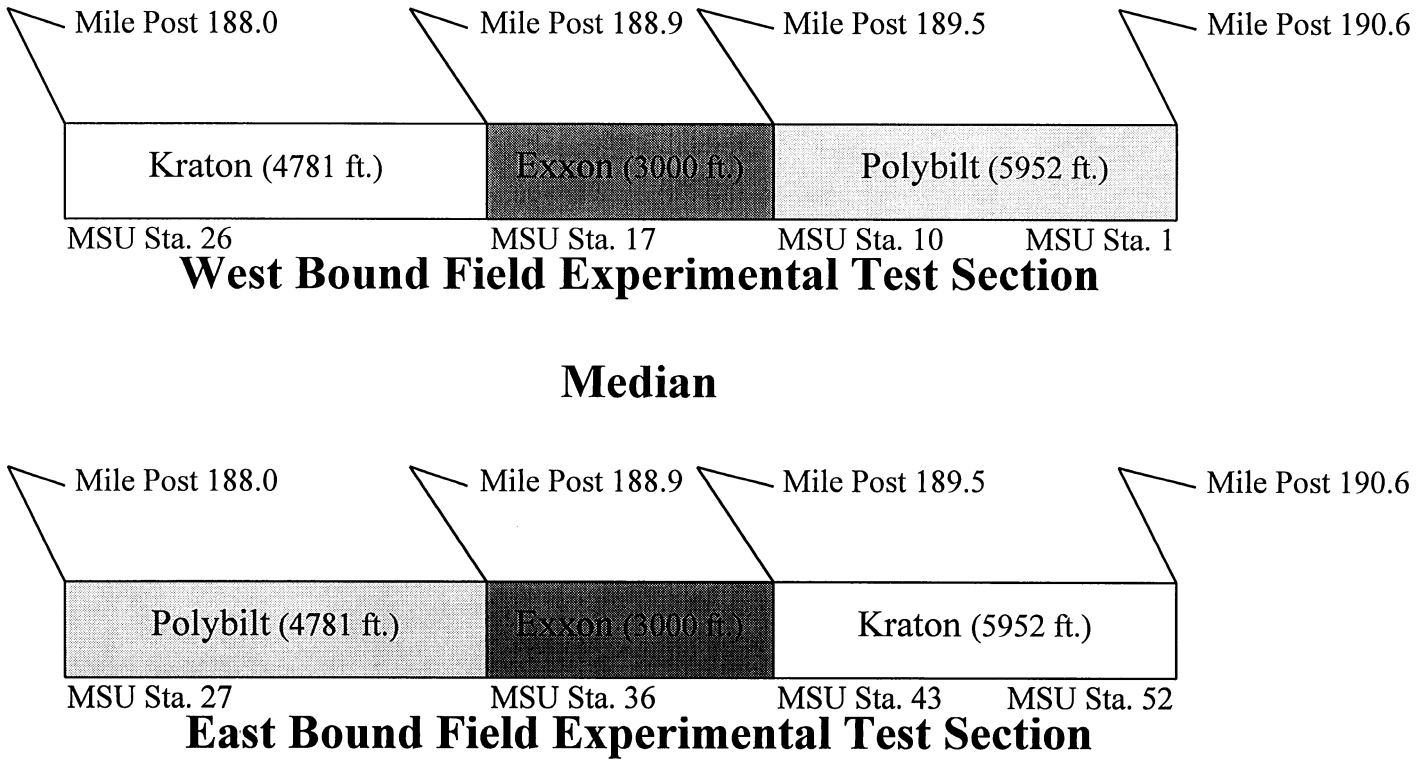



Figure 1. Layout of Test Sections - Interstate Highway I-94.

| STATE | PROJECT NUMBER | SHEET NO. |
|---|---|---|
| MONTANA | IR 94-5(25)185 | 3 |

# LINEAR AND LEVEL DATA

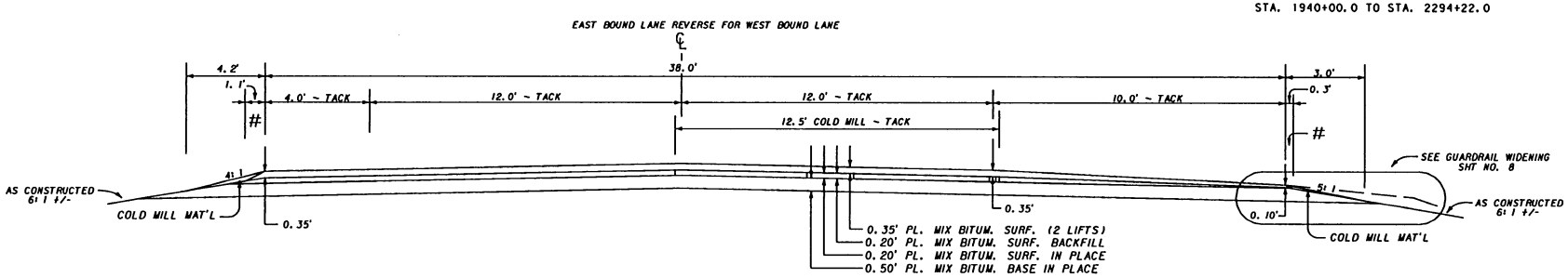
| | | | |
|---|---|---|---|
| LENGTH OF ROADWAY IR 94-5(25)185 | 34,177.85 FEET | = | 6.473 MILES |
| LENGTH OF BRIDGES IR 94-5(25)185 | 1,398.95 FEET | = | 0.265 MILES |
| TOTAL LENGTH OF IR 94-5(25)185 | 35,576.80 FEET | = | 6.738 MILES |

**BEARING SOURCE**

TAKEN FROM PROJECT: I - IG 94-5(14)181

# TYPICAL SECTION NO. 1

STA. 1940+00.0 TO STA. 2294+22.0




# TEMPORARY 2:1 INSLOPE

NOTE: SEE SURFACING FRAME AND STRAIGHT LINE DETAIL FOR MODIFIED ASPHALT LOCATIONS

QUANTITIES

| UNIT | GRAVEL | | | | UNIT | BITUMINOUS MATERIAL | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PLANT MIX OVERLAY | PLANT MIX BACKFILL | △ COLD MILL MAT'L | | TACK | PL. MIX OVERLAY OIL | PL. MIX BACKFILL OIL | | | |
| AREA SQUARE FEET | | 12.3 | 2.5 | 1.4 | AREA SQUARE YARDS | 983.3 | | | | | |
| CU. YARDS PER STATION | | 45.6 | 9.3 | 5.2 | TONS PER STATION | | 5.27 | 1.07 | | | |
| TONS PER STATION | | 87.9 | 17.9 | 10.0 | GALLONS PER STATION | 49.2 | | | | | |

△ QUANTITY DOUBLED FOR INSLOPES

Figure 2. Typical Cross Section of Interstate Highway I-94 Pavement

# PRE-CONSTRUCTION PAVEMENT SURFACE CONDITION

Both transverse and longitudinal cracks were studied with reference to the MSU stations. The distance of the closest crack, both ahead and behind the MSU stations, were measured and recorded. The severity levels of the cracks were classified according to the Strategic Highway Research Project's (SHRP) Distress Identification Manual for the Long Term Pavement Performance Project. (*4*) The longitudinal cracks found in the vicinity of the station were also classified according to the manual. Typical transverse and longitudinal cracks are shown in Photo D and Photo E (Appendix A). Photos of every crack were taken for record.

## Rut Depth

Rutting is described in the Distress Identification Manual as longitudinal surface depressions in the wheel path. Severity levels can be defined in relation to inches of rut depth. Rut depths are measured in inches to the nearest 1/10-inch at set stations.(*4*) For the field study, fifty-two stations were chosen randomly at differences ranging from 200 to 600 feet as seen in Table 2.

The maximum rut depths at each station's wheel paths for the westbound driving and passing lanes were measured from the transverse profilograph record provided by the Rainhart Profilograph. It was observed that the rut depth on the driving lane was greater than that in the passing lane, even though the driving lane had undergone several maintenance activities to fill the ruts on the original pavement surface. The average rut depths on the left and right wheel paths were 0.26 and 0.18 inches for the passing lane, and 0.31 and 0.29 inches for the driving lane. The maximum rut depths on left and right wheel paths were 0.45 and 0.55 inches for the driving lane, and were 0.55 and 0.45 inches for the passing lane.

Similarly, the rut depths of the pre-construction pavement on the eastbound driving and passing lanes were obtained from the profilograph output. Again, the rut depths on the driving lane were higher than those on the passing lane even though the eastbound driving lane had been subjected to overlays and chip seals to reduce the rutting on the original pavement surface too. The average rut depths on the left and right wheel path of passing lane were 0.20 and 0.12 inches, with the maximum rut depth of 0.30 and 0.20 inches, respectively. The average rut depths on the left and right wheel path of driving lanes were 0.39 inches for both wheel paths with maximum

rut depths of 0.60 and 0.70 inches for the respective wheel paths. A summary of the pre-construction rutting is found in Table 3.

**Table 3:** Pre-Construction Rutting.

| **Direction** | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP | RWP | LWP | RWP |
| | (Inches) | (Inches) | (Inches) | (Inches) |
| Westbound Average Depths | 0.31 | 0.29 | 0.26 | 0.18 |
| Maximum | 0.45 | 0.55 | 0.55 | 0.45 |
| Standard Deviation | 0.12 | 0.08 | 0.07 | 0.10 |
| Eastbound Average Depths | 0.39 | 0.39 | 0.20 | 0.12 |
| Maximum | 0.60 | 0.70 | 0.30 | 0.20 |
| Standard Deviation | 0.12 | 0.16 | 0.04 | 0.03 |

**Transverse Pavement Profile**

The profilograph records illustrate the actual profile of the pavement surface with reference to the straight profilograph beam. The output of the profilograph was reproduced by taking the coordinates of the profile at intervals of four inches. The results of the differential leveling survey gave the elevation of the profilograph legs positions. Survey results and profiles are found in Appendix D.

The transverse slope of the pavement was no longer in the original intended shape. The distortions were so excessive that the intended drainage of the pavement was no longer possible. This would affect the stability of vehicles and reduce the performance of the pavement. The distortion of the driving lanes was more extensive than that of the passing lanes.

# OVERLAY CONSTRUCTION

The specifications and requirements of the construction of the overlay on the experimental test section, using the modified binders, were stipulated in the special provisions section of the contract document. An overview of the materials used is given in the following sections.

## Aggregates

Plant mix surfacing grade B (3/4-inch maximum size aggregate) was used throughout the experimental test section. The source of the aggregate was the Denby pit, which is Yellowstone River gravel. The aggregate gradation for the job mix including the high and low range of gradation are shown in Table 4. The required mix gradation was obtained by mixing two stock piles of crushed rock and one pile of natural fines. The bin split percentages used to obtain the job mix specification are shown in Table 5. The field aggregate gradation was monitored constantly by running wet and dry sieve analysis to assure that the mix gradation met the specification. These quality control tests were conducted by the MDT.

**Table 4:** Aggregate Gradations for Grade B PMBS

| Sieve Size | Job Mix | Range | |
|---|---|---|---|
| | Percent | Low | High |
| 3/4-inch | 100 | 100 | 100 |
| 1/2-inch | 88 | 81 | 95 |
| 3/8-inch | 77 | 70 | 84 |
| 4M | 53 | 46 | 60 |
| 10M | 34 | 28 | 40 |
| 40M | 17 | 12 | 22 |
| 200M | 6.5 | 5 | 8 |

**Table 5:** Bin Split Percentages

| | Coarse Percent | Course Fines Percent | Natural Fines Percent |
|---|---|---|---|
| Design | 43 | 37 | 20 |
| Field | 42 | 37 | 21 |

## Asphalt

The 85/100 penetration grade asphalt from Exxon Company, USA, Billings, as selected by the contractor, was used in the control section. Kraton and Polybilt modifiers were recommended based on the laboratory study on 120/150 penetration grade of base asphalt. This was the grade of asphalt used in the MSU laboratory study and recommended for the field evaluation. However, the Polybilt modified asphalt utilized Exxon 85/100 penetration grade asphalt and a softening agent as the base in the experimental test section; this modified asphalt was designated as Polybilt X-1. The base asphalt for the Kraton modified asphalt section was 120/150 penetration grade asphalt from Exxon.

## Kraton

Kraton thermoplastic rubber polymers are in a unique class of rubber designed for use without vulcanization, the combining of sulfur with other additives in the presence of heat and pressure so as to increase its strength and resiliency. Kraton D4141G is a linear SBS (Styrene-Butadiene-Styrene) block copolymer. Kraton D4141G differs fundamentally in molecular structure from the typical plastic or commercial rubber (homopolymer or random copolymers); it is a tri-block copolymer with an elastic block in the center and a thermoplastic block on each end. The first "4" identifies the polymer as containing process oil usually a napthenic/paraffinic type which is added to the polymer to aid in the mixing of the polymer into bitumen, and to affect desirable changes in the physical properties of the final binder blend. Kraton D4141G contains about twenty-nine percent oil. The designation "G" refers to the polymer being in the ground "powder" form, again for the purpose of decreasing blending time.(*2*)

## Polybilt

Polybilt is an ethylene vinyl acetate, EVA, resin and encompasses a large family of petrochemical polymers and polymer concentrates designed for asphalt modification by Exxon Chemical Company. Polybilt X-1 was used with 120/150 penetration grade asphalt for the MSU laboratory study, and was recommended for inclusion in the field study. However, an EVA polymer modified concentration, mixed in Houston, Texas, was used and mixed with 85/100

penetration grade Exxon at the Exxon Company, USA, Billings. Exxon Chemical chose to use the 85/100 penetration grade asphalt, with "softeners," to attain the desired specifications. (*2*)

**Placement of Overlays**

The placement of the overlays started on April 24, 1991. The day was warm and breezy with an ambient temperature of 78° F. Both the modifiers, Polybilt and Kraton, were mixed in Billings. The modified asphalts were then trucked by tanker to the job site, a distance of approximately 200 miles. The Polybilt concentrate was blended with 85/100 penetration grade Exxon asphalt at 350° F in a 5000 gallon tank with an agitator at the Exxon Company, Billings. The Kraton D4141G polymer granules were mixed with 120/150 penetration grade of Exxon asphalt at a private asphalt mixing company in Billings. The modifier mixed asphalts were delivered to the site on time without interrupting the paving schedule.

The Polybilt modified asphalt was brought to the site in an 8900 gallon insulated tanker, with an in-tank asphalt temperature of 350° F. The modified asphalt was then transferred to the drained stationary insulated tank of a drum-type continuous bituminous mix plant, and pumped into the continuous flow mixing plant. The average output of the plant was 407 tons/hr. The plant mix bituminous material was carried in belly dump trucks to the paver. Similar operations were repeated for the Kraton modified asphalt delivered in about a 9000 gallon insulated tanker. The modified asphalt temperatures in the tank were 320° F for the first tank and 344° F for the second tank. Unfortunately no record of the tanker or its temperature was located for the unmodified control.

Prior to placing the PMBS and leveling courses, the existing 0.20 ft. of bituminous surfacing on the driving lane was removed by a cold milling machine (Photo F - Appendix A). The bituminous surfacing, removed from all cold milled sections, was replaced with PMBS the same day that the milling was done. A tack coat of SS-1 emulsified asphalt was applied to a 79° F surface prior to the placement of PMBS in the trench. The PMBS was placed with numbers of dump trucks leaving a windrow of PMBS closely followed by a paver. The paver used in the operation was a Blow Knox NE 85 1B PI1804 paver with a capacity of 750 Tons/hr. The lay down temperature ranged from 238-259° F. The paver was closely followed by two 18-ton Dynapak vibrating rollers. Two passes were made to compact seams followed by four more

passes. The break down roller-compacted mat was thus produced with the total of six passes of vibrating rollers. The rolling operation was completed with the final pass of a 10-ton finishing steel roller. Identical processes were repeated for placement of asphalt and unmodified asphalt in the control section. No difficulties were noticed in the placement of the PMBS with modified asphalt or the unmodified control section. The daily average of the data collected on the placement of the PMBS are presented in a tabulated form by date, section, temperature, tonnage placed, and binder type in Table 6.

**Table 6:** Placement Data Surface-Grade B Asphalt Concrete

| Date | Station (From) | Distance (Feet) | Asphalt Modifier | Tonnage Placed | Temp. Mix (F) | Asphalt Percent | Asphalt Temp. (F) | Loads of Mix |
|---|---|---|---|---|---|---|---|---|
| 4/24 | 2126+92 | 4756 | Polybilt | 830.65 | 325 | 5.63 | 348 | 35 |
| 4/24 | 2174+49 | 3025 | Exxon | 517.28 | 303 | 5.73 | 295-306 | 22 |
| 4/24 | 2204+73 | 5952 | Kraton | 1099.74 | 308 | 6.04 | 348 | 46 |
| 4/25 | 2264+25 | 5975 | Polybilt | 1079.56 | 300 | 5.34 | 352 | 45 |
| 5/1 | 2202+03 | 2730 | Exxon | 506.20 | 302 | 5.65 | 295-306 | 21 |
| 5/1 | 2174+73 | 4781 | Kraton | 857.01 | 305 | 5.50 | 333 | 38 |
| 5/6 | 2126+22 | 4851 | Polybilt | 1025.18 | 325 | 5.39 | 344 | 38 |
| 5/6 | 2174+73 | 3000 | Exxon | 626.20 | 308 | 5.71 | 295-306 | 27 |
| 5/6 | 2204+73 | 5952 | Kraton | 1246.61 | 305 | 5.51 | 330 | 54 |
| 5/7 | 2126+47 | 4826 | Polybilt | 949.66 | 325 | 5.51 | 344 | 39 |
| 5/7 | 2174+73 | 3000 | Exxon | 600.13 | 310 | 5.71 | 295-306 | 27 |
| 5/7 | 2204+73 | 5952 | Kraton | 1174.40 | 305 | 5.68 | 340 | 54 |
| 5/8 | 2264+25 | 5952 | Polybilt | 1219.38 | 322 | 5.50 | 360 | 49 |
| 5/8 | 2204.73 | 3000 | Exxon | 623.37 | 312 | 6.00 | 295-306 | 27 |
| 5/8 | 2174+73 | 4781 | Kraton | 996.87 | 305 | 5.60 | 340 | 42 |
| 5/8 | 2264+25 | 5952 | Polybilt | 1179.60 | 322 | 5.50 | 356 | 48 |
| 5/9 | 2204+73 | 3000 | Exxon | 597.69 | 307 | 5.76 | 295-306 | 24 |
| 5/9 | 2174+73 | 4781 | Kraton | 945.55 | 305 | 5.60 | 332 | 52 |
| 5/9 | 2126+92 | 4781 | Polybilt | 1227.49 | 320 | 5.53 | 351 | 50 |
| 5/10 | 2174+73 | 3000 | Exxon | 809.47 | 304 | 5.76 | 295-306 | 34 |
| 5/10 | 2204+73 | 5918 | Kraton | 1597.85 | 304 | 5.57 | 345 | 64 |
| 5/14 | 2126+62 | 4811 | Polybilt | 1049.59 | 323 | 5.52 | 338 | 42 |
| 5/14 | 2174.73 | 3000 | Exxon | 646.08 | 308 | 5.76 | 295-306 | 26 |
| 5/14 | 2204+73 | 5952 | Kraton | 1273.22 | 303 | 5.55 | 334 | 51 |
| 5/16 | 2264+25 | 5952 | Polybilt | 1616.98 | 323 | 5.50 | 338 | 65 |
| 5/16 | 2204+73 | 3000 | Exxon | 842.00 | 312 | 5.85 | 295-306 | 36 |
| 5/16 | 2174+73 | 4781 | Kraton | 1282.14 | 302 | 5.60 | 343 | 52 |
| 5/17 | 2264+25 | 5952 | Polybilt | 1262.51 | 321 | 5.55 | 331 | 51 |
| 5/17 | 2204+73 | 3000 | Exxon | 623.70 | 307 | 5.71 | 295-306 | 25 |
| 5/17 | 2174+73 | 4781 | Kraton | 1022.85 | 304 | 5.66 | 348 | 42 |

The average, maximum, and minimum temperatures were 320.6, 325, and 300° F for the Polybilt X-1 modified PMBS; 304.6, 308, and 302° F for Kraton D4141G modified PMBS, and 307.3, 312 and 302° F for unmodified 85/100 Exxon PMBS. The average binder temperature of Polybilt modified asphalt was the highest at 346.2° F compared to 339.3° F for Kraton modified asphalt and 300.6° F for unmodified Exxon asphalt. Average asphalt percentages of the PMBS were 5.50 for Polybilt modified asphalt, 5.63 for Kraton modified asphalt, and 5.76 for unmodified asphalt.

# FIELD TESTING

Quality control data, utilizing 50 blow Marshall specimens, collected by MDT-Glendive District, reveals the following information. The average, maximum, and minimum values of Marshall stability were 2136, 2226, and 2003 pounds for Polybilt X-1 modified asphalt; 2008, 2151, and 1647 pounds for Kraton modified asphalt; and 2068, 2259, and 1851 pounds for unmodified Exxon asphalt. The stability of the Polybilt modified asphalt was higher than both the Kraton modified and unmodified asphalt. The minimum stability of the Kraton modified asphalt was lower than specifications. The variations between the maximum and minimum stability of the Kraton modified and unmodified asphalt were the highest. The average percent air voids of 3.34 percent for Kraton modified asphalt was the highest. The Polybilt modified asphalt had 2.77 percent air voids and the unmodified Exxon asphalt had 2.90 percent. The average Marshall flow values varied between 10 and 11 1/100 inches. The average unit weight had a range of 2.339 and 2.355 g/cc, which was higher than design specification.

The field densities of the compacted mat at each section were measured using a nuclear densimeter. Four readings were taken at each location. The average densities measured by the nuclear densimeter were compared with the densities of the laboratory test specimens prepared with the respective plant mix of aggregate and binder using 50 compaction blows with a Marshall hammer. None of the test results of the pavement were less than 95 percent of target density. In fact, some of them were between 97 and 98 percent. Table 7 presents a summary of the gathered field testing.

**Table 7:** Field Data

| **Material** | **Stability** (Pounds) | **Air Voids** (Percent) | **Flow** (1/100th inch) | **Unit Weight** (gm/cc) | **Asphalt Content** (Percent) |
|---|---|---|---|---|---|
| AC 85/100 Exxon (Ave.) | 2068 | 2.90 | 10.10 | 2.354 | 5.76 |
| Maximum | 2259 | 3.30 | 11.00 | 2.361 | 6.00 |
| Minimum | 1851 | 2.40 | 9.00 | 2.349 | 5.65 |
| Design Specification | 1615 | 3.30 | 9.00 | 2.325 | 5.90 |
| Kraton D4141G (Ave.) | 2008 | 3.34 | 11.00 | 2.339 | 5.63 |
| Maximum | 2151 | 4.30 | 12.00 | 2.350 | 6.04 |
| Minimum | 1647 | 1.70 | 10.00 | 2.327 | 5.50 |
| Design Specification | 1725 | 3.50 | 11.00 | 2.315 | 6.00 |
| Polybilt X-1 (Ave.) | 2136 | 2.77 | 10.10 | 2.355 | 5.50 |
| Maximum | 2226 | 4.30 | 11.00 | 2.362 | 5.63 |
| Minimum | 2003 | 2.00 | 9.00 | 2.332 | 5.34 |
| Design Specification | 1620 | 3.50 | 8.00 | 2.319 | 5.60 |

## Core Density and Percent Air Voids

The cores of the pavement were taken on May 23, and May 24, 1991 from eastbound and westbound lanes. Unfortunately, the only unmodified cores came from the passing lane. These were also the only cores from the passing lane. The data on the cores was provided by MDT-Glendive District. The lifts were separated from each other, and bulk specific gravity and Rice specific gravity were run on each lift. This was done to increase the accuracy of the in-place percent air voids determinations. The average percent air voids ranged between 3.2 percent for Polybilt modified asphalt to 4.5 percent for the unmodified asphalt control section. However, the ranges of percent air voids of cores from all three sections were large. The maximum percent air voids was 6.8 percent for Kraton modified pavement, 5.4 percent for unmodified asphalt, and 5.2 percent for Polybilt modified section. Similarly, the minimum percent air voids for Kraton modified section was the lowest at 1.8 percent compared to that of Polybilt modified section at 1.9 percent and unmodified control section at 3.5 percent. The most consistent product, in terms of air voids, was the unmodified Exxon 85/100 penetration grade asphalt form the control section.

# COST INFORMATION

The costs of the modified asphalt and the plant mix were bid as found in Table 8. Table 8 also includes current, January through June 1996, average bid information for both modified and unmodified asphalt concrete.

**Table 8:** Bid Information

| Material | Cost Bid |
|---|---|
| AC 85/100 Exxon (unmodified) | $126.20/Ton |
| Kraton D4141G modified 120/150 Exxon | $376.20/Ton |
| Polybilt X-1 modified 85/100 Exxon | $239.20/Ton |
| Plant mix | $9.20/Ton |
| Asphalt cement 85/100 (1996) | $115.63/Ton |
| Asphalt cement polymer modified (1996) | $208.01/Ton |

The material costs for each binder/aggregate combination can be determined from the placement data and bid prices. By breaking the placement values into their respective asphalt cement and plant mix quantities, and then summing these values, the amount placed of each is determined. Multiplying the bid amounts by their respective quantities placed yields the costs. If the total cost of material is then divided by the number of miles utilizing a material, the cost per mile is produced.

For the Polybilt modified sections a total of 628.78 tons of asphalt cement was placed with 10,811.82 tons of plant mix. At $239.20/ton for the asphalt and $9.20 for the plant mix, the cost is $249,872.92. The total length of the Polybilt sections is 2.03 miles, resulting in a cost of $120,909.11/mile. Utilizing the same procedure for the Kraton and control sections yields a cost per mile of $169,112.79 and $89,437.08 respectively. Table 9 provides a summary of the in-place material costs.

**Table 9:** In-place Material Costs

| Material | Asphalt Cement (Tons) | Plant Mix (Tons) | Cost | Miles | Cost/Mile |
|---|---|---|---|---|---|
| Polybilt X-1 | 628.78 | 10811.82 | $249,872.92 | 2.03 | $120,090.11 |
| Kraton D4141G | 647.08 | 10855.16 | $343,298.97 | 2.03 | $169,112.79 |
| 85/100 Exxon | 368.81 | 6023.31 | $101,958.27 | 1.14 | $89,437.08 |

# POST-CONSTRUCTION EVALUATION

The post-construction pavement surface survey was conducted on May 31 and June 1, 1991. There were no cracks on the freshly laid pavement overlays. The pavement surface was smooth and black with closely held aggregates (Photo G - Appendix A) in all three test sections. There was no visible bleeding, rutting, or any other distress.

The transverse profiles of the post-construction pavement were taken about fifteen days after construction. The transverse profile records of the post-construction pavement surface were obtained by running the Rainhart transverse profilograph at the same stations as before.

The rut depths, as defined in the distress identification manual, were measured on the left and right wheel paths of each passing and driving lane. The rut depths were measured from the records of the profilograph. The average rut depths for Polybilt on the left and right wheel paths of the westbound passing lane were 0.04 inches, for both, with a maximum depth of 0.10 and 0.05 inches, and a standard deviation of 0.04 and 0.02 inches, respectively. The average rut depths for Kraton on left and right wheel paths of the passing westbound lanes were 0.03 and 0.07 inches, respectively, with the maximum depth of 0.05 and 0.15 inches, and a standard deviation of 0.03 and 0.04 inches, respectively. The average rut depths on the left and right wheel paths of the passing lane were 0.06 and 0.09 inches, respectively, for the westbound control section, with a maximum rut depths of 0.10 and 0.15 inches and a standard deviation of 0.02 and 0.05 inches, respectively. The driving lane rut depths for Polybilt averaged 0.04 and 0.03 inches for the left and right wheel paths, respectively. Maximum depths were 0.05 inches for both, and a standard deviation of 0.02 and 0.03 inches, respectively. Kraton had left and right wheel path depths of 0.02 and 0.01 inches, respectively, for the westbound driving lane. The maximum depths were again 0.05 inches, and the standard deviations were 0.03 and 0.02 inches, respectively. The control section's rut depths for its left and right wheel paths, on the westbound driving lane, were 0.08 and 0.06 inches, respectively. The maximum depths were 0.10 inches for both, and the standard deviations were 0.03 and 0.02 inches, respectively. A summary of the westbound post-construction rut depths con be found in Table 10.

**Table 10:** Post-Construction Rutting - Westbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP (Inches) | RWP (Inches) | LWP (Inches) | RWP (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.04 | 0.03 | 0.04 | 0.04 |
| Maximum | 0.05 | 0.05 | 0.10 | 0.05 |
| Standard Deviation | 0.02 | 0.03 | 0.04 | 0.02 |
| **Kraton** | | | | |
| Average Depths | 0.02 | 0.01 | 0.03 | 0.07 |
| Maximum | 0.05 | 0.05 | 0.05 | 0.15 |
| Standard Deviation | 0.03 | 0.02 | 0.03 | 0.04 |
| **Control** | | | | |
| Average Depths | 0.08 | 0.06 | 0.06 | 0.09 |
| Maximum | 0.10 | 0.10 | 0.10 | 0.15 |
| Standard Deviation | 0.03 | 0.02 | 0.02 | 0.05 |

Data for the eastbound post-construction rut depths were similar to the westbound data. The average rut depths for Polybilt on the left and right wheel paths of the eastbound passing lane were 0.03 and 0.08 inches, respectively, with a maximum depth of 0.05 and 0.10 inches, respectively, and a standard deviation of 0.03 inches for both. The average rut depths for Kraton on left and right wheel paths of the eastbound passing lanes were 0.04 and 0.07 inches, respectively, with the maximum depth of 0.05 and 0.10 inches, and a standard deviation of 0.02 and 0.03 inches, respectively. The average rut depths on the left and right passing lane were 0.04 and 0.09 inches, respectively, for the eastbound control section, with a maximum rut depths of 0.05 and 0.10 inches, respectively, and a standard deviation of 0.02 inches, for both. The driving lane rut depths for Polybilt averaged 0.00 and 0.02 inches for the left and right wheel paths, respectively. Maximum depths were 0.00 and 0.10 inches, and a standard deviation of 0.00 and 0.04 inches, respectively. Kraton had left and right wheel path depths of 0.01 inches for both in the eastbound driving lane. The maximum depths were 0.05 inches, and the standard deviations were 0.02 inches, for both. The control section's rut depths for its left and right wheel paths, on the eastbound driving lane, were 0.04 and 0.03 inches, respectively. The maximum depths were 0.10 and 0.05 inches, respectively, and the standard deviations were 0.03 inches for both. In

each case the passing lane ruts were deeper than those of the driving lane. A summary of the eastbound post-construction rut depths can be found in Table 11.

**Table 11:** Post-Construction Rutting - Eastbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP (Inches) | RWP (Inches) | LWP (Inches) | RWP (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.00 | 0.02 | 0.03 | 0.08 |
| Maximum | 0.00 | 0.10 | 0.05 | 0.10 |
| Standard Deviation | 0.00 | 0.04 | 0.03 | 0.03 |
| **Kraton** | | | | |
| Average Depths | 0.01 | 0.01 | 0.04 | 0.07 |
| Maximum | 0.05 | 0.05 | 0.05 | 0.10 |
| Standard Deviation | 0.02 | 0.02 | 0.02 | 0.03 |
| **Control** | | | | |
| Average Depths | 0.04 | 0.03 | 0.04 | 0.09 |
| Maximum | 0.10 | 0.05 | 0.05 | 0.10 |
| Standard Deviation | 0.03 | 0.03 | 0.02 | 0.02 |

**Transverse Pavement Profile**

The first lift over those cracks with crack sealer caused a swelling phenomena of the PMBS after the break down rolling. These observations were made in all sections of untrenched pavement, with or without modified asphalt. The swelled materials were scraped off prior to the placement of the second lift. Also, down time of the continuous drum type mixing plant occurred when ever the asphalt was changed from unmodified 85/100 Exxon to one of the modified asphalts or vice versa. Emptying the asphalt tank of the continuous drum mix plant to the storage tank and refilling the asphalt tank with appropriate asphalt caused a minor time loss. This obviously would not be a concern in an ordinary paving operation having one material on each lift.

# FIRST ANNUAL EVALUATION

The first annual field evaluation took place August 11, through August 13, 1992, about eighteen months after completion of construction. The pavement was in good condition overall. No cracks had formed during the first winter. Observed distresses included rutting (Photo H-Appendix A), raveling (Photo I - Appendix A), bleeding (Photo J - Appendix A), and polished aggregate (Photo K - Appendix A).

## Rutting

The average rut depths of the westbound driving lane's control section were over three times the average rut depth of the Polybilt and Kraton modified asphalt sections. The rut depths of the westbound driving lane control section had nearly reached the level of pre-construction rutting in just over one year. The rut depths of the passing lane control section were also higher than those of the modified sections. The difference, however, was not as great as in the driving lane, 0.03 to 0.04 inches deeper.

Three distinct rutting patterns were observed from the data for each section. It was also observed that the rut depths on the driving lane were greater than in the passing lane. The average rut depths on the left and right wheel paths of the westbound passing lane were 0.06 and 0.07 inches for the Polybilt modified section, 0.11 and 0.10 inches for the control section, and 0.06 inches for both in the Kraton modified section. The maximum rut depths on the westbound passing lane left and right wheel paths were 0.09 and 0.10 inches for the Polybilt, 0.10 inches for both in the Kraton modified sections, and 0.13 and 0.18 inches for the control section. Standard deviations were 0.02 inches for both Polybilt wheel paths, 0.02 and 0.04 for the control section, and 0.03 inches for both for Kraton. The average rut depths of left and right wheel paths of the westbound driving lane were both 0.12 inches for Polybilt modified section, 0.37 and 0.38 inches for the control section, and 0.11 and 0.09 inches for Kraton modified section. The maximum rut depth of the westbound driving lane's left and right wheel paths were 0.16 and 0.17 inches for Polybilt section and 0.12 and 0.16 inches for the Kraton section, and 0.40 and 0.43 inches for control section. The standard deviation 0.02 and 0.03 inches for Polybilt, 0.04 and 0.06 inches for the control section, and 0.01 and 0.02 inches for Kraton. Table 12 gives a summary of this data.

**Table 12:** First Annual Post-Construction Rutting - Westbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP (Inches) | RWP (Inches) | LWP (Inches) | RWP (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.12 | 0.12 | 0.06 | 0.07 |
| Maximum | 0.16 | 0.17 | 0.09 | 0.10 |
| Standard Deviation | 0.02 | 0.03 | 0.02 | 0.02 |
| **Kraton** | | | | |
| Average Depths | 0.11 | 0.09 | 0.06 | 0.06 |
| Maximum | 0.12 | 0.16 | 0.10 | 0.10 |
| Standard Deviation | 0.01 | 0.02 | 0.03 | 0.03 |
| **Control** | | | | |
| Average Depths | 0.37 | 0.38 | 0.11 | 0.10 |
| Maximum | 0.40 | 0.43 | 0.13 | 0.18 |
| Standard Deviation | 0.04 | 0.06 | 0.02 | 0.04 |

The rut depths on the eastbound driving lane's control section were also about three times those on the Polybilt and Kraton modified sections. The rut depths on the pavement surface of the eastbound lane control section were almost equal to those on the pre-construction pavement surface. The differences in rut depths on the passing lanes of both Polybilt and Kraton modified and control sections were small.

Similarly, the rut depths on the eastbound driving and passing lanes were obtained from the profilograph records. The average rut depths on the left and right wheel path of eastbound passing lane were 0.06 and 0.10 inches for the Polybilt modified section, 0.06 and 0.09 inches for the control section, and 0.03 and 0.08 inches for the Kraton modified section. The maximum rut depth on the eastbound passing lane's left and right wheel paths were 0.08 and 0.16 inches for Polybilt modified section, 0.10 and 0.13 inches for the control section, and 0.08 and 0.12 inches for Kraton modified sections. Standard deviations were 0.02 and 0.03 inches for Polybilt and Kraton, 0.03 inches for both in the control section's wheel paths. The average rut depths on the pavement surface of left and right wheel paths of eastbound driving lanes were 0.12 and 0.13 inches for the Polybilt modified section, 0.35 and 0.39 inches for the control section, and 0.12 and 0.13 for the Kraton modified section. The maximum rut depths of the left and right wheel paths in the eastbound driving lane were 0.15 and 0.20 inches for the Polybilt modified section,

0.48 and 0.50 inches for the control section, and 0.15 inches for both in the Kraton modified section. Standard deviations were 0.02 and 0.03 inches for Polybilt, 0.10 inches for both in the control section, and 0.02 inches for both Kraton paths. Table 13 shows a summary of the eastbound data.

**Table 13:** First Annual Post-Construction Rutting - Eastbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP (Inches) | RWP (Inches) | LWP (Inches) | RWP (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.12 | 0.13 | 0.06 | 0.10 |
| Maximum | 0.15 | 0.20 | 0.08 | 0.16 |
| Standard Deviation | 0.02 | 0.03 | 0.02 | 0.03 |
| **Kraton** | | | | |
| Average Depths | 0.12 | 0.13 | 0.03 | 0.08 |
| Maximum | 0.15 | 0.15 | 0.08 | 0.12 |
| Standard Deviation | 0.02 | 0.02 | 0.02 | 0.03 |
| **Control** | | | | |
| Average Depths | 0.35 | 0.39 | 0.06 | 0.09 |
| Maximum | 0.48 | 0.50 | 0.10 | 0.13 |
| Standard Deviation | 0.10 | 0.10 | 0.03 | 0.03 |

**Transverse Pavement Profile**

The pavement profiles of the control section were already distorted because of the excessive rutting. The transverse slope of the pavement was no longer in the original intended shape. This would again affect the stability of the traffic and reduce the performance of the pavement. The distortion of the driving lanes was more extensive compared to that of the passing lanes.

# SECOND ANNUAL EVALUATION

The second annual field evaluation was conducted June 24, through June 28, 1993. This was a little over two years following construction. The rut depths of the second annual pavement seemed to have stabilized. They were not significantly different from the first annual rut depths. While the wheel path bleeding of the control section was greater than that of first annual pavement, the globules of the polymer modified asphalt in the modified section did not change. Isolated spots of the polished aggregates and raveling were again noticed, but their severity levels were consistent with those from the first annual pavement.

The Marshall test properties of the cores from different phases, pre-construction, post-construction, and first annual pavement surveys indicated that only one of the Marshall test properties, air voids, correlates inversely with the rut depths. This has been indicated by the air voids and rut depths of modified sections and control section of the first annual pavement, pre-construction, and post-construction pavement cores.

## Pavement Surface Condition

The distresses observed in the second year on the test section were transverse cracks, spot bleeding, rutting, polished aggregate, raveling, and weathering. The distress levels were different in the modified asphalt and the control sections. The raveling and weathering of the pavement surface of the second annual study were similar to that of the first annual survey (Photo L - Appendix A). Spots of polished (exposed) aggregate were again observed in all three sections (Photo M - Appendix A). The globules of the polymer modifier that had separated during the construction were still visible at previous levels (Photo N - Appendix A). However, the spot bleeding on the wheel path of the control section had increased in numbers and size (Photo O - Appendix A). The transverse cracks and ruts were measured at each station.

## Transverse cracks

The major distress observed in the second annual pavement was thermal transverse cracking (Photo P - Appendix A). The transverse cracks were in the development stage, with both low and moderate observed severity levels. Most of these cracks were reflective (Photo Q - Appendix A), as seen from the location of the pre-construction cracks. The reason for the cracks,

with not a single transverse crack in the first annual pavement evaluation to extensive cracking in the second annual pavement evaluation, was the severe 1993 winter. Several days were below minus 20° F in 1993. Strategic Highway Research Project tests, direct tension and bending beam rheometer, on the modified asphalt in the Rocky Mountain User and Producer Group Truck predicted thermal cracking in this temperature range. Both the direct tension test, tensile failure properties of asphalt cement binder at low in-service temperatures, and the bending beam rheometer, low temperature creep response of asphalt binder, failed before reaching -20° F. While the riding quality of the pavement is not reduced by the these cracks, drainage related maintenance problems could develop.

In the first post-construction winter, climatological data recorded minimum temperatures of -10° F for two days in December, 1991, and -15° F for one day in January, 1992. While in the second winter, the climatological data recorded the minimum temperature of -30° F for one day in December, 1992, and below -20° F for five days in January, 1993, with one day of -28° F. The temperatures records were taken for the Mildred 5 N station, which is in Prairie county and is closest to pavement location. The severe winter temperatures resulted in thermal cracks on both modified and control sections. The phenomenon of thermal cracking was verified by results of performance based SHRP tests on both modified and unmodified asphalt. (***5***)

The transverse cracks were studied with reference to the fixed MSU stations. The number of cracks within 160 feet of the stations were recorded. The distance of the cracks both ahead and behind the stations were measured. All of the cracks were classified as low or moderate severity, as directed by the SHRP Distress Manual, and were at different stages of formation. Most of the cracks originated from the shoulders and passing lane, which were not trenched before construction. These cracks propagated to the driving lanes. The overlays were placed over the cracks of the shoulders and the passing lane of the pre-construction pavement. The pre-construction driving lane was trenched 0.20 feet prior to the placement of the overlays, essentially removing the original transverse cracks. It was observed that the second annual cracks occurred at approximately the same locations as the original cracks in most of the cases.

**Rutting**

The average rut depths of the control section were over three times the average rut depth of the Polybilt and Kraton modified asphalt sections. The rut depths of the passing lane on the control section were also higher than those of the polymer modified sections. It was also observed that the rut depths on the driving lane were greater than in the passing lane.

The average rut depths on the left and right wheel paths of the westbound passing lane were 0.06 and 0.09 inches for the Polybilt modified section, 0.10 and 0.12 inches for the control section, and 0.07 inches for both in the Kraton modified section. The maximum rut depths for the left and right wheel paths on the westbound passing lane were 0.07 and 0.16, 0.13 and 0.22, and 0.09 inches for both in the Polybilt modified, control and Kraton modified sections, respectively. Standard deviations for the left and right wheel paths were 0.01 and 0.03, 0.02 and 0.05, and 0.01 and 0.02 inches for Polybilt, control and Kraton, respectively. The average rut depths of left and right wheel paths of the westbound driving lane were 0.13 and 0.12 inches for the Polybilt modified section, 0.37 and 0.39 inches for the control section, and 0.11 and 0.10 inches in the Kraton modified section. The maximum rut depths for the left and right wheel paths of the westbound driving lane were 0.16 inches for both in the Polybilt modified section, 0.41 and 0.44 inches for the control section, and 0.13 and 0.14 inches for the Kraton modified section. Standard deviations for the left and right wheel paths were 0.02 inches for both in the Polybilt section, 0.04 and 0.07 inches in the control, and 0.03 and 0.02 inches for the Kraton section. Table 14 summarizes the rut depth information for the westbound lanes.

**Table 14:** Second Annual Post-Construction Rutting - Westbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP (Inches) | RWP (Inches) | LWP (Inches) | RWP (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.13 | 0.12 | 0.06 | 0.09 |
| Maximum | 0.16 | 0.16 | 0.07 | 0.16 |
| Standard Deviation | 0.02 | 0.02 | 0.01 | 0.03 |
| **Kraton** | | | | |
| Average Depths | 0.11 | 0.10 | 0.07 | 0.07 |
| Maximum | 0.13 | 0.14 | 0.09 | 0.09 |
| Standard Deviation | 0.03 | 0.02 | 0.01 | 0.02 |
| **Control** | | | | |
| Average Depths | 0.37 | 0.39 | 0.10 | 0.12 |
| Maximum | 0.41 | 0.44 | 0.13 | 0.22 |
| Standard Deviation | 0.04 | 0.07 | 0.02 | 0.05 |

Similarly, the average rut depths on the left and right wheel paths of the eastbound passing lane were 0.07 and 0.11 inches for the Polybilt modified section, 0.05 and 0.09 inches for the Kraton modified section, and 0.06 and 0.10 inches for the control section,. The maximum rut depths for the left and right wheel paths, on the westbound passing lane, were 0.09 and 0.13 inches for Polybilt modified section; 0.08 and 0.16 inches for the Kraton modified section, and 0.06 and 0.16 inches for the control section. The standard deviations for the left and right wheel paths of the eastbound passing lanes were 0.02 inches for both in the Polybilt section; 0.02 and 0.04 inches for the Kraton section; and 0.01 and 0.04 inches for the control section. The average rut depths of the left and right wheel paths of the eastbound driving lanes were 0.13 and 0.14 inches for the Polybilt modified section, 0.12 and 0.13 inches for the Kraton modified section, and 0.37 and 0.42 inches for the control section. The maximum rut depths of the left and right wheel paths of the eastbound driving lane were 0.19 and 0.22 inches for the Polybilt modified section, 0.14 inches for both in the Kraton modified section, and 0.47 and 0.50 inches for the control section. Standard deviations for the left and right wheel paths were 0.04 inches for both in the Polybilt section, 0.02 and 0.01 inches in the Kraton section, and 0.08 and 0.10 inches in the control section. Table 15 offers a summary of the eastbound data.

**Table 15:** Second Annual Post-Construction Rutting - Eastbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP (Inches) | RWP (Inches) | LWP (Inches) | RWP (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.13 | 0.14 | 0.07 | 0.11 |
| Maximum | 0.19 | 0.22 | 0.09 | 0.13 |
| Standard Deviation | 0.04 | 0.04 | 0.02 | 0.02 |
| **Kraton** | | | | |
| Average Depths | 0.12 | 0.13 | 0.05 | 0.09 |
| Maximum | 0.14 | 0.14 | 0.06 | 0.16 |
| Standard Deviation | 0.02 | 0.01 | 0.02 | 0.04 |
| **Control** | | | | |
| Average Depths | 0.37 | 0.42 | 0.06 | 0.10 |
| Maximum | 0.47 | 0.50 | 0.08 | 0.16 |
| Standard Deviation | 0.08 | 0.10 | 0.01 | 0.04 |

**Observations**

The purpose of the pavement core study was to see if there exists a correlation between the rut depths observed on modified test sections and control section, and the Marshall test properties of the cores from those sections. The pre-construction pavement cores provided the Marshall test properties of the distressed pavement to the extent of failure. This established the limit of a distressed pavement parameter. The Marshall test properties of the post-construction pavement cores established a base for the possible starting limit that could be expected for the modified and unmodified test sections, under the specific designed pavement. These are the values before any kind of distresses were observed.

Since there were no significant differences between the first and second annual pavement ruts and no core results were available for second annual pavement, the comparisons were made between the first annual rut depths and the Marshall test properties of the first annual pavement cores. The data utilized for the evaluation is found in the second annual report. (*6*)

It was observed that the pavement cores of Kraton modified section had significantly larger air voids and the smallest rut depths. The control section, which had the largest rut depths, had the lowest values of the air voids. The air voids values of cores from between the wheel path were significantly higher than those of the cores from wheel path. Similarly, for the passing

lanes, the modified section with the smallest rut had the largest air voids. Values of the rut depths of the driving lane are significantly higher than the passing lane, while the values of the air voids are significantly lower.

The values of the air voids of the post-construction pavement cores were significantly higher than those of the first annual cores, but the values of the rut depth were significantly lower than those of first annual values. Similarly, the air voids values of the post-construction pavement cores were significantly higher than those of both the pre-construction and first annual pavement cores. But the rut depth values of post-construction pavement cores were significantly lower than those of both the pre-construction and first annual pavement cores.

# THIRD ANNUAL EVALUATION

The third annual interim monitoring of the field experimental project was conducted from August 19, to August 22, 1994. Rumble stripping was done since the second annual interim monitoring, and is located on the driving lane shoulders for both eastbound and westbound lanes.

## Pavement Surface Condition

The distresses observed in the test section were transverse cracking, forked cracking, longitudinal cracking, bleeding, rutting, raveling, polished aggregate, and weathering. The globules of the polymer modifier seen in previous years were still visible. The distresses observed in the vicinity of a station, approximately 100 feet ahead and back from the station, were recorded for each station.

## Transverse Cracks

Transverse cracking was again the major distress witnessed during the third annual evaluation. Most cracks were classified in the low to moderate severity levels; however there were some high severity level cracks present in the Polybilt modified sections. While the distance before and after the MSU stations was reduced from 160 feet to 100 feet, the total number of cracks studied increased over those of the second year. The length of cracks was measured by width of shoulder and fraction of affected driving and passing lanes.

Of the 361 transverse cracks recorded, 74.5 percent were considered low severity, 22.2 percent were considered moderate severity, and the remaining 3.3 percent were considered high severity. Over the entire test section, 203 transverse cracks were full width in length, 98 affected the shoulder only, while the remaining 60 fell into the range between full width and shoulder only.

Similar statistics are available for the modified asphalt sections. The Polybilt section had 53.7 percent low severity cracks, 36.6 percent moderate severity cracks, and 9.8 percent high severity cracks. The Kraton section had 74.1 percent low severity cracks, and 25.9 percent moderate severity cracks. The control section had 95.9 percent low severity cracks, and 4.1 percent moderate severity cracks.

**Rut Depth**

It is observed that the rut depths in the driving lane are still significantly greater than the rut depths in the passing lane. For the westbound driving lane, the Polybilt section had an average rut depth of 0.13 and 0.12 inches for the left and right wheel paths, respectively. The average rut depth for the left and right wheel paths was 0.42 and 0.41 inches for the control section, and 0.09 and 0.08 inches for the Kraton modified section. The maximum rut depths on the westbound driving lane's left and right wheel paths were 0.19 inches for both in the Polybilt section, 0.46 inches for both in the control, and 0.14 inches for both in the Kraton section. The driving lane had standard deviations of 0.03 and 0.05 inches for Polybilt; 0.04 and 0.06 inches for the control section; and 0.03 for both in the Kraton section. For the westbound passing lane, the average rut depths for the left and right wheel paths were 0.04 and 0.07 inches for Polybilt, 0.09 and 0.10 inches for the control, and 0.04 and 0.05 inches for Kraton. The maximum rut depth was 0.07 and 0.13 inches for Polybilt, 0.11 and 0.18 inches for the control, and 0.06 and 0.09 inches for Kraton. Standard deviations in the passing lane for the two wheel paths were 0.02 and 0.03 inches in the Polybilt section; 0.02 and 0.04 inches in the control section; and 0.01 and 0.02 inches for the Kraton section. Table 16 provides a summary of the rutting on the westbound driving lane.

**Table 16:** Third Annual Post-Construction Rutting - Westbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP (Inches) | RWP (Inches) | LWP (Inches) | RWP (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.13 | 0.12 | 0.04 | 0.07 |
| Maximum | 0.19 | 0.19 | 0.07 | 0.13 |
| Standard Deviation | 0.03 | 0.05 | 0.02 | 0.03 |
| **Kraton** | | | | |
| Average Depths | 0.09 | 0.08 | 0.04 | 0.05 |
| Maximum | 0.14 | 0.14 | 0.06 | 0.09 |
| Standard Deviation | 0.03 | 0.03 | 0.01 | 0.02 |
| **Control** | | | | |
| Average Depths | 0.42 | 0.41 | 0.09 | 0.10 |
| Maximum | 0.46 | 0.46 | 0.11 | 0.18 |
| Standard Deviation | 0.04 | 0.06 | 0.02 | 0.04 |

Similarly, for the eastbound driving lane, the average rut depths for the left and right wheel paths were 0.12 inches for both in the Polybilt section, 0.40 and 0.43 inches for the control, and 0.12 and 0.11 inches for Kraton. The maximum rut depths for the left and right wheel paths were 0.15 and 0.24 inches for Polybilt, 0.52 and 0.53 inches for the control section, 0.15 and 0.14 inches for Kraton. The standard deviations for the left and right wheel paths were 0.03 and 0.05 inches for Polybilt, 0.11 inches for both in the control section, and 0.03 and 0.02 inches for Kraton. In the eastbound passing lane, the average rut depth for the left and right wheel paths was 0.05 and 0.08 inches for Polybilt, 0.05 and 0.07 inches for the control, and 0.04 and 0.08 inches for Kraton. The maximum rut depth for the left and right wheel paths were 0.07 and 0.11 inches for Polybilt, 0.07 and 0.12 inches for the control, and 0.06 and 0.11 inches for Kraton. The standard deviations for the left and right wheel paths were 0.01 and 0.02 inches for Polybilt and Kraton, and 0.02 inches for both in the control section. Table 17 shows a summary of the rutting depths for the eastbound data.

**Table 17:** Third Annual Post-Construction Rutting - Eastbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP (Inches) | RWP (Inches) | LWP (Inches) | RWP (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.12 | 0.12 | 0.05 | 0.08 |
| Maximum | 0.15 | 0.24 | 0.07 | 0.11 |
| Standard Deviation | 0.03 | 0.05 | 0.01 | 0.02 |
| **Kraton** | | | | |
| Average Depths | 0.12 | 0.11 | 0.04 | 0.08 |
| Maximum | 0.15 | 0.14 | 0.06 | 0.11 |
| Standard Deviation | 0.03 | 0.02 | 0.01 | 0.02 |
| **Control** | | | | |
| Average Depths | 0.40 | 0.43 | 0.05 | 0.07 |
| Maximum | 0.52 | 0.53 | 0.07 | 0.12 |
| Standard Deviation | 0.11 | 0.11 | 0.02 | 0.02 |

# FIFTH ANNUAL EVALUATION

No formal evaluation occurred during the fourth year of the project, as there were minimal changes compared with the third year evaluation. Photographs taken by Dr. Armijo testify to this fact.

The fifth annual evaluation brings to an end the contract period between MDT and MSU. The evaluation was conducted in August 1996. The pavement surfaces have not changed significantly since the third annual evaluation. Distresses witnessed were identical to the third year's. Severity levels were about the same for the polymer modified sections, but had increased for the unmodified control section. Moreover, the size of affected areas is increasing in the unmodified sections at a faster pace too.

## Transverse Cracking

The conclusions drawn about crack resistance have changed since the second annual evaluation. The initial cracking first witnessed in the second year, brought the conclusion that the modified sections were not resisting cracking as well as the control section. Further analysis of the data from the second year shows that this conclusion was premature. On a per station basis, there were 3.2 cracks per station for Polybilt, 3.9 for the control, and 4.2 for Kraton. Statistically these numbers are identical. It is felt that the error in the original analysis occurred due to an oversight in the how the test sections were set up. Specifically, there are more stations in the modified sections than in the control, nineteen verses fourteen. If the number of cracks is analyzed without accounting for this difference, the results are skewed in favor of the control section.

For the fifth annual evaluation, transverse cracks (Photo R - Appendix A) within 200 feet, before or after an MSU station, were analyzed. Their distance from the station was recorded as was their severity level. Crack sealing operations were conducted on the western end of the project in the Spring 1996 (Photo S - Appendix A). The sealing operation encompasses portions of the Polybilt and Kraton sections. Severity levels of the sealed cracks are not included in this analysis because they were not recorded. The Polybilt and Kraton sections had 26.9 and 26.6 percent of their cracks sealed, respectively. The reflective cracking, as first witnessed in the

second year, had propagated to the driving lanes from the shoulders and the passing lane. Complete information on studied cracks is found in Appendix D.

Analysis of all cracking, including those sealed, on a per station basis, yields a crack density of 14.4 cracks per station for the control section, 11.7 for Polybilt, and 8.3 for the Kraton as displayed in Figure 3. A series of statistical analyses, located in Appendix B, were conducted to see if these numbers were significantly different. This analysis was done with the aid of a computer program from GraphPad Software, Inc., Prism 2.01. The means were tested for significant differences via the t-test. A 95 percent confidence interval, alpha equal to 0.05, was chosen. The variances were tested with an F-test. Alpha was again set at 0.05. Statistical analysis confirms the intuitive conclusion that Kraton is performing better than Polybilt, which is performing better than the control section. Table 18 provides a summary of the statistics on the cracking data.

**Table 18:** Crack Resistance Summary

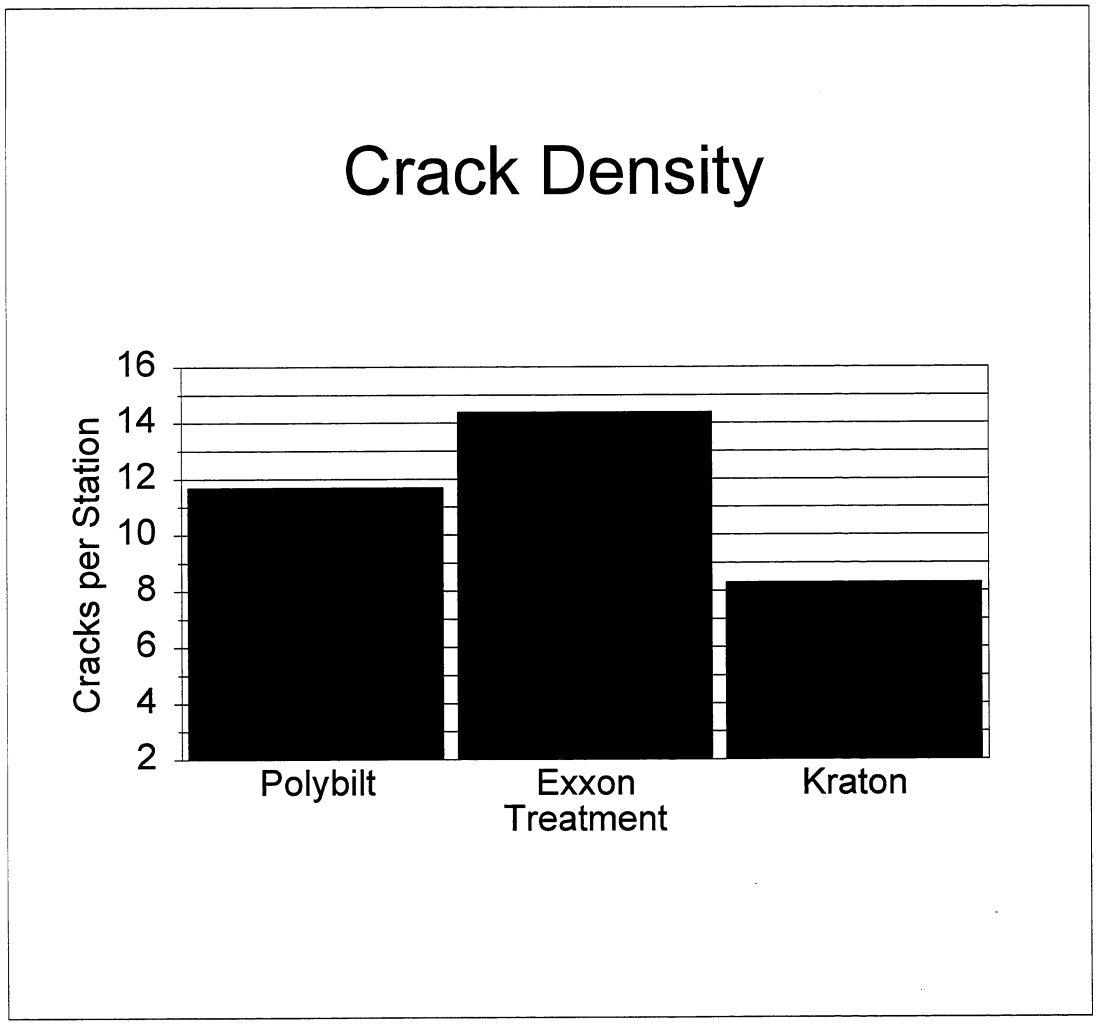
| Comparison | Means Significantly Different?* | Variance Significantly Different?** | Statistically Better Performer. |
|---|---|---|---|
| Polybilt vs. Kraton | **Yes** | No | Kraton |
| Polybilt vs. Exxon | **Yes** | No | Polybilt |
| Kraton vs. Exxon | **Yes** | **Yes** | Kraton |

*t-test performed on means, Alpha=0.05
**F-test performed on variance, Alpha=0.05

Severity level analysis of the unsealed cracks indicates 86.6 percent of the control sections cracks are low severity cracks. Moderate severity cracking accounted for 11.9 percent of the cracks. The remaining 1.5 percent are high severity cracks. Within the Polybilt section 61.9 percent of the unsealed cracks are of the low severity variety. Moderate severity cracks accounted for 26.3 percent of those not sealed, and high severity cracks accounted for 11.9 percent. Rounding errors cause the total percentage to exceed 100 percent. Kraton's unsealed cracks broke down as 91.4 percent and 8.6 percent low and moderate, respectively. Kraton does not have any high severity cracks.

When looking at the longitudinal cracking though (Photo T - Appendix A), the control section is resisting this phenomena better then the modified sections. The majority of the

**Figure 3** Crack Density.



longitudinal cracking occurred at the seam between the driving and passing lanes. Only 3.8 percent of the total station length for the control was found to have longitudinal cracking. By contrast, 27.5 percent of the Kraton section and 34.5 percent of the Polybilt section are cracked longitudinally. An investigation of edge cracking (Photo U - Appendix A) reveals that only 0.1 percent of the Kraton section's length is cracked. That is a mere eight feet out of 7600 feet possible. 5.6 percent of the control section is experiencing edge cracking and 15.3 percent of the Polybilt. It should be noted that when looking at both longitudinal and edge cracking, 64 to 100 percent, of the cracking, by modifier asphalt combination, is occurring in the westbound lanes, as displayed in Figures 4 and 5. A review of the construction data does not give any indication of an observed problem during construction. None the less, with such a disparity in the performance of the different directions, it can be assumed the difference between east and west lanes is a reflection of the construction. Data for longitudinal and edge cracking is found in Appendix D.

**Rutting**

The observations of rutting from previous years remains essentially unchanged. Rut depths of the modified sections driving lanes are about 0.05 inches deeper than the third year measurements. However, the control section's driving lane ruts have grown by more than 0.10 inches. Raw data from the profilograph records is found in Appendix D. Three stations incorporating Polybilt and Kraton, and two stations from the control section, were chosen at random from those available in the westbound direction. These, and their corresponding eastbound counterparts, were graphed relative to the centerline. These graphs can be found in Appendix C.

Statistical analyses, found in Appendix B, was performed on the ruts. The identical tests, t-test and F-test, with the same confidence level, used to compare cracking were carried out again on Prism Software. It was desired to use individual sections, without regard for wheel paths, in the analysis. Therefore, the ruts of the right and left wheel paths, of each utilized treatment and direction, were analyzed to see if their means were significantly different. In every instance the means did not differ significantly. Summarization of the wheel path test is found in Table 19. A repeat of the process was then done to compare Polybilt to Kraton, Polybilt to unmodified

**Figure 4** Polybilt Longitudinal and Edge Cracking.

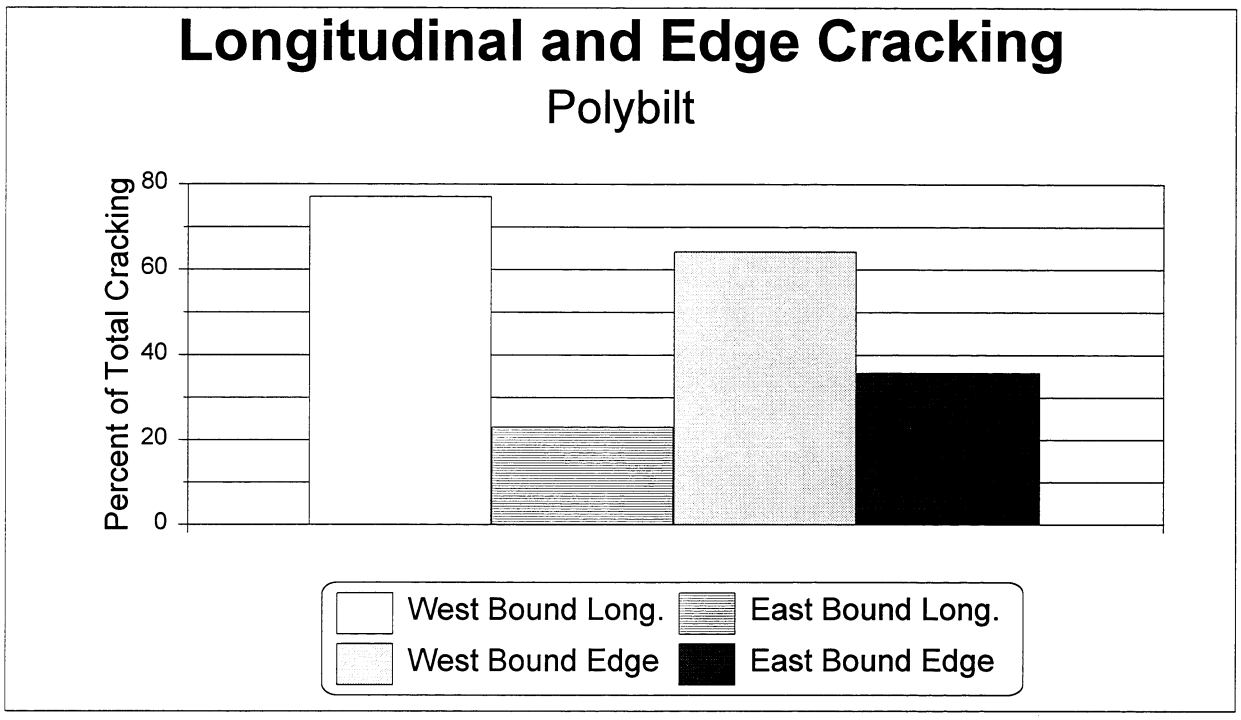
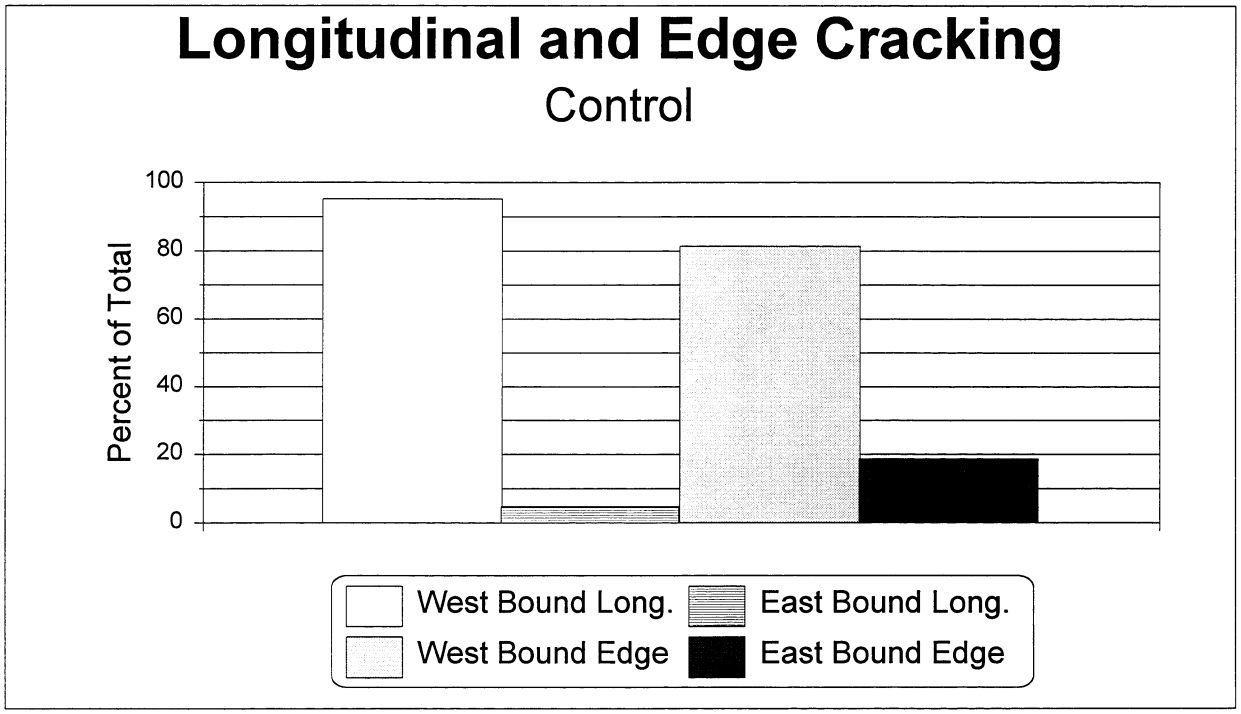



**Figure 5** Control Longitudinal and Edge Cracking.



Exxon, and Kraton to unmodified Exxon. These comparisons were done for driving and passing lanes individually. A summarization of the statistical analysis is found in Table 19 and Table 20.

**Table 19:** Rutting Performance (Left Wheel Path vs. Right Wheel Path)

| Item | Means Significantly Different?* | Variance Significantly Different?** | Statistically Better Performer. |
|---|---|---|---|
| **Polybilt** | | | |
| Eastbound Passing Lane | No | No | Neither |
| Eastbound Driving Lane | No | No | Neither |
| Westbound Passing Lane | No | **Yes** | Left Wheel Path |
| Westbound Driving Lane | No | No | Neither |
| **Kraton** | | | |
| Eastbound Passing Lane | No | No | Neither |
| Eastbound Driving Lane | No | No | Neither |
| Westbound Passing Lane | No | **Yes** | Left Wheel Path |
| Westbound Driving Lane | No | No | Neither |
| **Exxon** | | | |
| Eastbound Passing Lane | No | No | Neither |
| Eastbound Driving Lane | No | No | Neither |
| Westbound Passing Lane | No | No | Neither |
| Westbound Driving Lane | No | No | Neither |

**Table 20:** Rutting Performance Comparison by Product and Lane

| Item | Means Significantly Different?* | Variance Significantly Different?** | Statistically Better Performer. |
|---|---|---|---|
| **Eastbound Passing Lane** | | | |
| Polybilt vs. Kraton | **Yes** | No | Kraton |
| Polybilt vs. Exxon | No | No | Neither |
| Kraton vs. Exxon | **Yes** | No | Kraton |
| **Eastbound Driving Lane** | | | |
| Polybilt vs. Kraton | No | **Yes** | Kraton |
| Polybilt vs. Exxon | **Yes** | **Yes** | Polybilt |
| Kraton vs. Exxon | **Yes** | **Yes** | Kraton |
| **Westbound Passing Lane** | | | |
| Polybilt vs. Kraton | No | No | Neither |
| Polybilt vs. Exxon | **Yes** | No | Polybilt |
| Kraton vs. Exxon | **Yes** | No | Kraton |
| **Westbound Driving Lane** | | | |
| Polybilt vs. Kraton | No | No | Neither |
| Polybilt vs. Exxon | **Yes** | No | Polybilt |
| Kraton vs. Exxon | **Yes** | No | Kraton |

*t-test performed on means, Alpha=0.05

**F-test performed on variance, Alpha=0.05.

Both modified sections are still performing significantly better than the control section in the driving lanes. In the passing lanes, which are not loaded to the same extent as the driving lanes, the difference is not as pronounced. In fact, in the eastbound passing lane, Polybilt and the control are not statistically different. Also, in every direct comparison, where a difference existed, Kraton is performing better than Polybilt. It is unclear if the difference arose from better performance from Kraton, or is a by product of the utilization of 85/100 penetration grade asphalt and softeners with Polybilt.

In the driving lanes, where both modifiers are outperforming the control by significant margins, the average rut depth for the eastbound driving lanes left wheel paths are 0.17, 0.18 and 0.52 inches for Polybilt, Kraton, and control, respectively. For the right wheel paths the average depths are 0.18, 0.17 and 0.53 inches for Polybilt, Kraton, and control, respectively. Maximum depths for the left and right wheel paths are 0.21 and 0.30, 0.21 for both, and 0.68 and 0.63 inches for Polybilt, Kraton and the control section respectively. Standard deviations for the left wheel paths are 0.04, 0.03, and 0.14 inches for Polybilt, Kraton, and the control section, respectively. For the right wheel path, the standard deviations are 0.05, 0.03, and 0.12 inches, respectively. In the westbound driving lanes the average depths for the left wheel paths are 0.15, 0.12, and 0.51 inches for Polybilt, Kraton, and control, respectively. Average depths for the right wheel paths are 0.18, 0.15 and 0.55 inches, respectively. Maximum depths for the left and right wheel paths are 0.22 and 0.24, 0.18 and 0.21, and 0.59 and 0.60 inches for Polybilt, Kraton, and the controls sections respectively. For the westbound driving lanes standard deviations are 0.04 inches for Polybilt and Kraton, and 0.06 inches for the control section's left wheel paths. For the corresponding right wheel paths, the standard deviations are 0.04 for Polybilt and the control sections, and 0.05 inches for Kraton.

While the differences in rut depths are not as pronounced in the passing lanes, it is none the less noticeable. In the left wheel path of the eastbound passing lane the average depths are 0.08 inches for Polybilt, 0.05 inches for Kraton, and 0.10 inches for the control section. In the right wheel path of the eastbound lane, the average depths are 0.08 inches in the control and Polybilt sections, and 0.07 inches for the Kraton section. Maximum depths are 0.11 and 0.12 inches, 0.10 and 0.09 inches, and 0.13 and 0.12 inches for the left and right wheel paths of Polybilt, Kraton, and control sections, respectively. Standard deviations for the left and right

wheel paths are 0.02 inches for the modified sections and 0.03 inches for the control. In the westbound passing lanes, the average depths are 0.06, 0.07 and 0.11 inches for the left wheel paths of Polybilt, Kraton, and the control sections, respectively. In the right wheel paths, Kraton averaged 0.10 inches, Polybilt averaged 0.09 inches and the control's ruts are 0.13 inches. Maximum rut depths are 0.09 and 0.15 , 0.10 and 0.16, and 0.15 and 0.20 inches for the left and right wheel paths, respectively. Standard deviations for the passing lanes of the left wheel paths are 0.02 inches for the modified sections and 0.03 inches for the control section. For the right wheel paths, the standard deviations 0.04 inches for all of the sections. Figure 6 graphically summarizes rutting information for the fifth annual evaluation. Table 21 provides a summary of the rutting in the driving lanes of the westbound lanes and Table 22 for the eastbound lanes.

**Figure 6:** Fifth Annual Post-Construction Ruts.

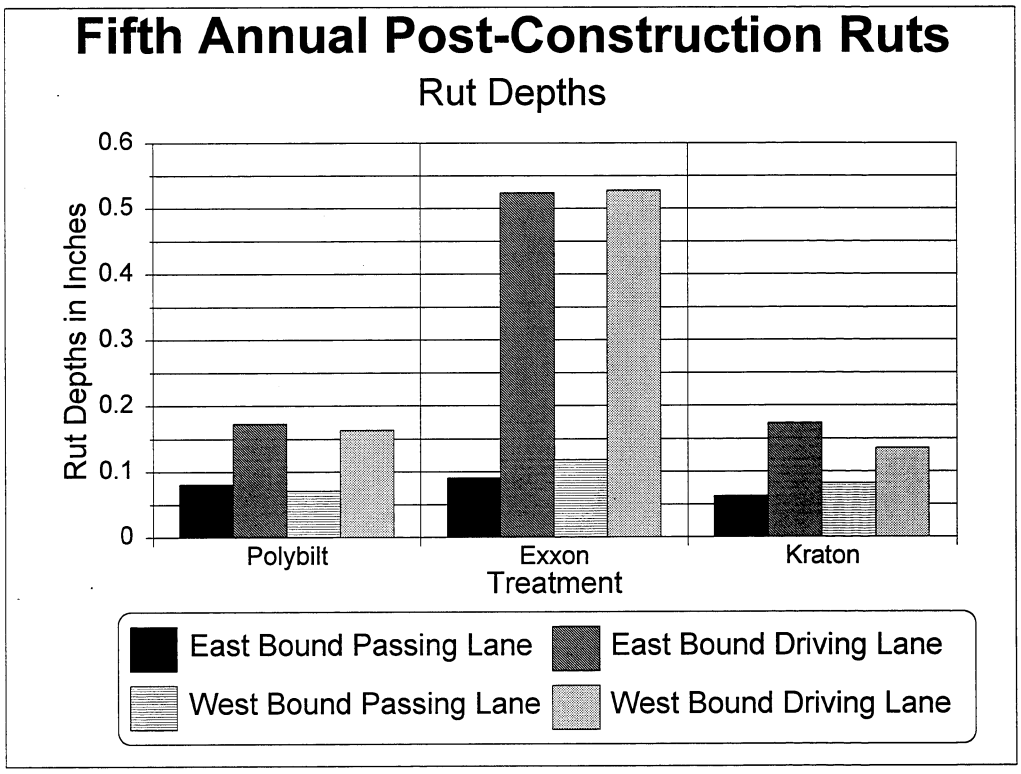


**Table 21:** Fifth Annual Post-Construction Rutting - Westbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP | RWP | LWP | RWP |
| | (Inches) | (Inches) | (Inches) | (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.15 | 0.18 | 0.06 | 0.09 |
| Maximum | 0.22 | 0.24 | 0.09 | 0.15 |
| Standard Deviation | 0.04 | 0.04 | 0.02 | 0.04 |
| **Kraton** | | | | |
| Average Depths | 0.12 | 0.15 | 0.07 | 0.10 |
| Maximum | 0.18 | 0.21 | 0.10 | 0.16 |
| Standard Deviation | 0.04 | 0.05 | 0.02 | 0.04 |
| **Control** | | | | |
| Average Depths | 0.51 | 0.55 | 0.11 | 0.13 |
| Maximum | 0.59 | 0.60 | 0.15 | 0.20 |
| Standard Deviation | 0.06 | 0.04 | 0.03 | 0.04 |

**Table 22:** Fifth Annual Post-Construction Rutting - Eastbound

| | **Driving Lane** | | **Passing Lane** | |
|---|---|---|---|---|
| | LWP | RWP | LWP | RWP |
| | (Inches) | (Inches) | (Inches) | (Inches) |
| **Polybilt** | | | | |
| Average Depths | 0.17 | 0.18 | 0.08 | 0.08 |
| Maximum | 0.21 | 0.30 | 0.11 | 0.12 |
| Standard Deviation | 0.04 | 0.05 | 0.02 | 0.02 |
| **Kraton** | | | | |
| Average Depths | 0.18 | 0.17 | 0.05 | 0.07 |
| Maximum | 0.21 | 0.21 | 0.10 | 0.09 |
| Standard Deviation | 0.03 | 0.03 | 0.02 | 0.02 |
| **Control** | | | | |
| Average Depths | 0.52 | 0.53 | 0.10 | 0.08 |
| Maximum | 0.68 | 0.63 | 0.13 | 0.12 |
| Standard Deviation | 0.14 | 0.12 | 0.03 | 0.03 |

# ECONOMIC ANALYSIS

In an effort to evaluate whether the added costs of the polymer modifiers is justified, an economic analysis is required. To do this, an estimation of the Remaining Service Life (RSL) of the evaluated sections is required. Based on a road condition survey on June 27, 1996, performed by the MDT, a prediction of the remaining life was made by the MDT. This prediction was done for a number of factors. Evaluated factors included alligator cracking, miscellaneous cracking, and rutting.

The RSL for both cracking categories is based on a survey of the first 250 feet of a given one mile section. In the case of alligator cracking, all of the sections with the exception of the westbound passing lane of Kraton and the control material, had the maximum of fifteen years of life left in them. The mentioned Kraton section has 14.6 years of RSL, and the control has 12.6 years. All of the sections had between 13.95 and 14.85 years RSL under the miscellaneous cracking criteria.

The RSL for rutting is based on a continuous rolling survey of an entire one mile section. It is probable that in the collection of the rutting data, the operator would not remain oriented so as to record the maximum rut depth at all times. Consequently, the results will be optimistic. Also, because the value of the RSL is based on an entire mile section, the inputs for each mile section will be based on more than one material. Specifically, for milepost 188, one tenth of the data will have came from the unmodified control sections and nine tenths from modified sections.. For milepost 189, half of the data will be from the unmodified sections and half from the modified sections. And for milepost 190, six tenths are from the modified sections and four tenths were from unmodified, non-control sections. Nonetheless, the data contains useful information. In nearly every case the driving lanes are out performing the passing lanes. As shown by the rutting RSL data, the one mile sections with longer reaches of modified influence, have, in general, more years of service remaining. The exception to this is the driving lane of the westbound 189 milepost. Its 10.63 years of RSL is greater then the values for its companions with greater modifier influence. It is felt that the explanation for this is twofold. First, the potential wandering of the survey vehicle previously mentioned could be coming into play. Second, modified portions of milepost 189 are performing well, and thus countering the effects of the unmodified portion within the milepost 189 sections. Remember, that in every

comparison of the modified test sections to the unmodified control, the test sections performed better statistically. Remember too, that the data for those comparisons came from the highly accurate prophilograph survey data. It is felt, therefore, that if it were possible to drive the survey vehicle in a perfect fashion, this anomaly would not be seen and the modified sections would have higher RSL values. The RSL values can be found in Table 23.

**Table 23:** Remaining Service Life, in Years

| Milepost | Lane | Primary Material | Alligator Cracking Index RSL | Miscellaneous Cracking Index RSL | Rutting RSL |
|---|---|---|---|---|---|
| **188** | Westbound Passing | Kraton | 14.6 | 14.85 | 13.13 |
| | Westbound Driving | Kraton | 15 | 14.85 | 9.38 |
| | Eastbound Passing | Polybilt | 15 | 14.1 | 15 |
| | Eastbound Driving | Polybilt | 15 | 14.7 | 14.38 |
| **189** | Westbound Passing | Exxon | 12.6 | 14.55 | 10.63 |
| | Westbound Driving | Exxon | 15 | 13.95 | 10.63 |
| | Eastbound Passing | Exxon | 15 | 14.85 | 15 |
| | Eastbound Driving | Exxon | 15 | 14.7 | 6.75 |
| **190** | Westbound Passing | Polybilt | 15 | 14.7 | 13.13 |
| | Westbound Driving | Polybilt | 15 | 13.95 | 8.75 |
| | Eastbound Passing | Kraton | 15 | 14.1 | 15 |
| | Eastbound Driving | Kraton | 15 | 14.85 | 10 |

With the RSL estimated for each section, an estimate of the annual costs can be produced. Differences in annual costs will arise from differences in initial costs and maintenance costs. The total cost of construction of each section varied only by the difference in the casts for the asphalt concrete. Identical methods were used to prepare the sites and compact the materials. There would thus be no differences in preparation, compaction, etc. costs. Therefore, those sections with shorter service lives, the construction costs will be greater on a per year of service life basis. Also, a result of the greater resistance of the modified sections to cracking is a reduction in the maintenance costs per year. Finally, for those sections with fifteen years RSL, they are at the maximum possible value. Thus, there may be more then fifteen years RSL in those sections.

The annualized costs for the material is determined by dividing the cost per mile by the RSL. This provides a cost per year per mile. Only the driving lanes will be calculated, using the rutting RSL, as they have the least amount of years left in them. The RSL value is rounded to the nearest year and increased five years to include the first five years of service. Unfortunately this value will skewed by the combination of materials in a given mile stretch. In an effort to help eliminate this bias, it is assumed that a linear relationship exists between the costs of the material in a section. The most unbiased values are found in the 188 stretch, as they contain nine tenths of a mile of an individual material. The results of the analysis are found in Table 24.

**Table 24:** Annualized Costs

| Milepost | Primary Material | Rutting RSL (rounded) | Cost Per Mile | Cost Per Mile Per Year |
|---|---|---|---|---|
| 188 | Kraton | 9 | $161,145.22 | $11,510.37 |
| | Polybilt | 14 | $117,024.81 | $6,159.20 |
| 189 | Exxon/Kraton | 11 | $129,274.94 | $8,079.68 |
| | Exxon/Polybilt | 7 | $104,763.60 | $8,730.30 |
| 190 | Polybilt | 9 | $107,828.90 | $7,702.06 |
| | Kraton | 10 | $137,242.51 | $9,149.50 |

# CONCLUSIONS

The performance of a pavement can deteriorate rapidly because of premature rutting and cracking. Increasing truck traffic, heavier loads, different wheel configurations, higher tire pressures, and radial tires have accelerated the problems. Extreme climatic conditions, as experienced in eastern Montana, contribute to losses of pavement integrity even faster. The pre-construction pavement surface conditions, on the test sections involved in this research, provided testimony of the extent of pavement deterioration. The drainage pattern of the pavement surface was changed because of rutting.

Conventional methods of asphalt concrete mix design were developed for single axle loads of eighteen kips, with conventional wheel pressures of 70-90 psi. Adjustments of the components of a pavement are now required to strengthen pavements for the new conditions. Asphalt mixes modified with polymers seem to offer a solution to rutting and cracking of pavements.

The production and placement of polymer modified asphalt pavement was not significantly different than that for conventional asphalt binders. The asphalt can be modified locally in the refineries in the state. The identical compaction pattern for both unmodified and modified asphalt sections demonstrated that the modification does not require special efforts to obtain the specified level of compaction. Marshall stability and flow and unit weight fell within design specification. The field density of all modified and unmodified asphalt sections were within 95 to 98 percent of the target density.

The air void contents of PMBS was low. The control section, paved with a conventional mix using regular asphalt, was rutted almost to the depth of the pre-construction level after the first year. Its cores had the lowest number of air voids. The ruts in the modified asphalt sections were significantly lower than the unmodified control section. This can only be attributed to the properties of modified asphalt binders, both Polybilt and Kraton as they represent the only significant difference in the sections. Figures 7-10 show how the ruts have evolved on the tests sections and the control.

**Figure 7:** Rut Evolution - Eastbound Passing Lane.

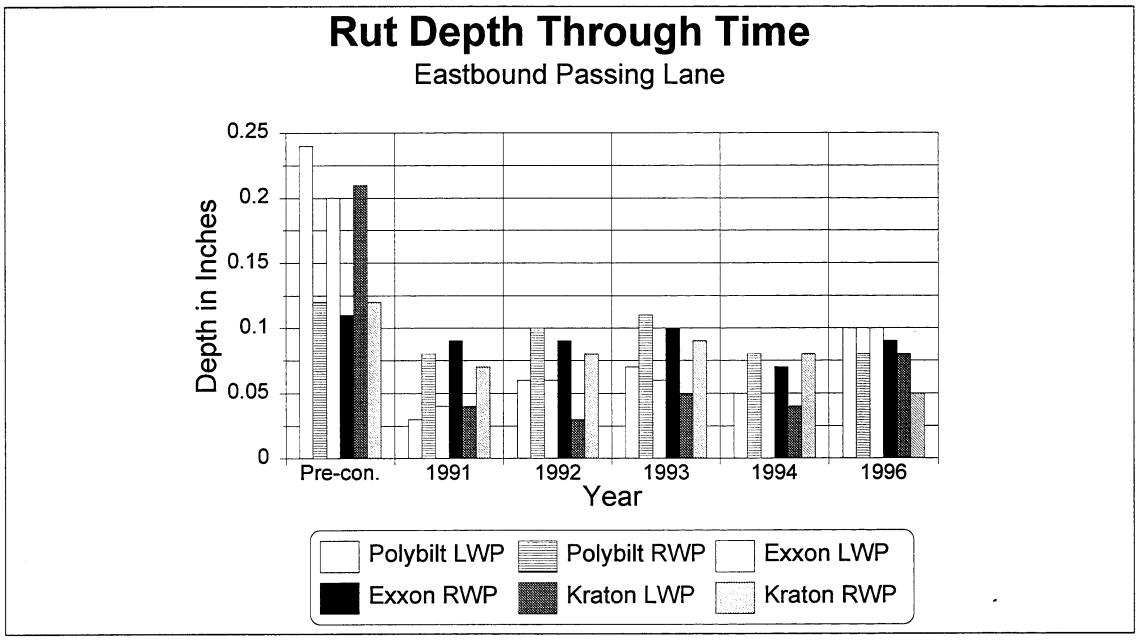



**Figure 8:** Rut Evolution - Westbound Passing Lane.

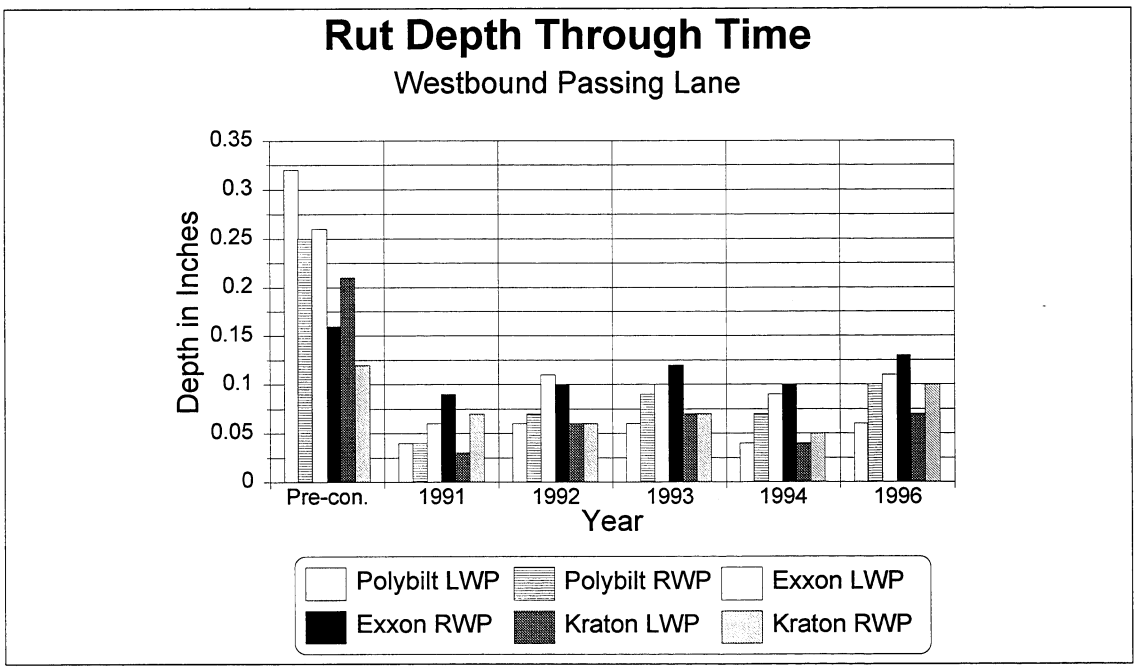


**Figure 9:** Rut Evolution Westbound Driving Lane.

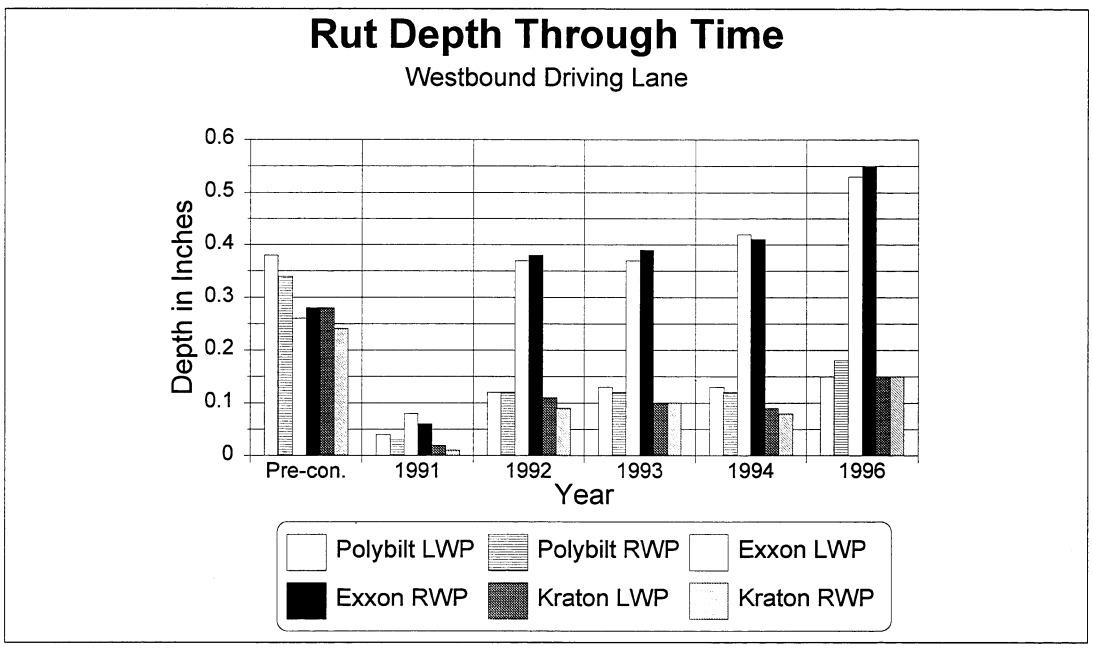
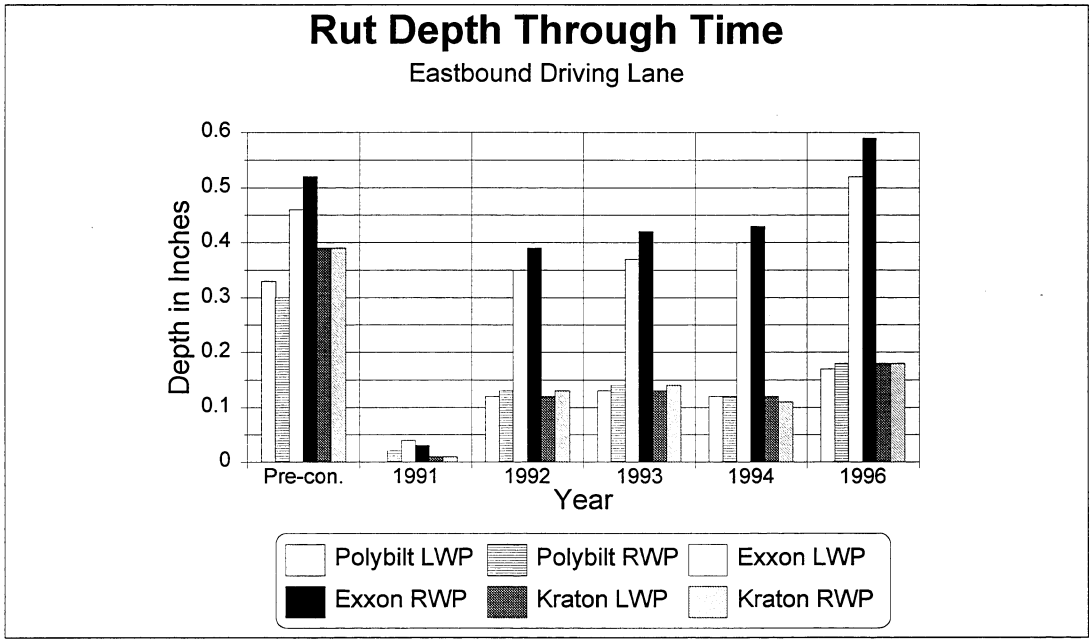



**Figure 10:** Rut Evolution Eastbound Driving Lane.



Isolated spots of distress such as weathering, raveling and polished aggregate started to appear in all of the test sections after the first year of traffic. These might be the result of the rounded coarse aggregate. It was thought that these distresses may spread over a large area with time, and/or the severity level of these distresses may increase over time. This has been the case for the unmodified control section. In the modified sections, however, the distresses have not propagated as quickly. The benefits of polymer utilization are extending beyond cracking and rutting.

The rutting and cracking of the pavement are reduced significantly by polymer modified asphalt. But, there seems to be limitation to the performance of the polymer modified asphalt. In particular, low limits to low temperatures resulting in the thermal cracking. Performance based SHRP tests could provide guidance to cold region asphalt properties which were not possible before. The tensile failure properties of asphalt cement binder at low in-service temperatures could be determined using the direct tension test. Also, the low temperature creep response of asphalt binders could be determined using the bending beam rheometer. None the less, the modifiers offer an improvement to conventional asphalt in this respect too.

The extensive study of the Marshall test properties of the cores from pre-construction and after the first year of service, resulted in confirming the inverse relationship between the air voids and rut depth. The air void parameter of the Marshall test should be taken seriously in the designing of a mix and construction of the pavement, for both modified and unmodified asphalt. The variables that affect the air voids are the compaction effort 50 versus 75 blows, mineral filler and fines, aggregates size large stone versus conventional, and the gradation. If sufficient control is introduced in these variables, air voids could be controlled as desired.

Kraton seemed to produce higher air voids, for the same design method and compaction. Kraton modified asphalt mix hardens quickly with reduction of the mix temperature. The compaction of Kraton modified mix is sensitive to the temperature. This characteristic of the Kraton modified asphalt might have resulted higher air voids.

An economic analysis of the various sections indicates that the Polybilt is costing the least per year of projected service. This projection is based on a section's RSL as determined by the MDT utilizing a rutting criteria. The same could have been carried out using a cracking criteria, but the limiting factor appears to be the rutting. The conclusions that Polybilt is

performing the best, economically, would be less dramatic if an actual dollar amount could be determined for maintenance.

In analyzing the data from the past five years, Kraton consistently performed better structurally then either Polybilt or Exxon 85/100 penetration grade asphalt. This is in-spite of Kraton having the lowest Marshall stability of tested products. The higher air voids found in the Kraton cores are felt to be the primary factor in its higher performance. Polybilt performed better structurally then the unmodified control section, resisting cracking and rutting better. All of the modified sections suffered less from weathering, raveling, polished aggregate, and bleeding than did the control sections. However, the best resistance to longitudinal cracking was exhibited by the Exxon 85/100 section. Exxon also outperformed Polybilt in its ability to resist edge cracking too.

Economically, Polybilt is providing the greatest return for the invested dollar. This is based strictly on material costs alone. If other construction factors were introduced into the analysis, both Polybilt and Kraton would widen and/or close the gap with the control section. The same can be said about maintenance costs. Both modifiers are resisting transverse cracking better then the control, so they will require less crack sealing dollars.

# RECOMMENDATIONS and IMPLEMENTATION

Documentation as a result of this long term study has shown that polymer modifiers are highly beneficial in the reduction of pavement cracking and rutting. It is therefore the recommendation of this study that polymer modifiers be utilized on all high traffic areas of Montana's highway system. The entire Interstate system within our borders is found within this category. Modifiers should also be used in localized areas of heavy loading. This would include sections of Montana with oil field, mining, timber, and/or agricultural activity. These operations tend to increase loading to specific stretches of a road because of the heavy equipment required by these industries. Also, Federal and State highways with high commercial vehicle portions of the ADT's will benefit from polymer modifiers, extending the useful life of their pavements as well.

While the research does not offer a recommendation for asphalt brand, it does recommend using 120/150 penetration grade asphalt. Standard practice is to use 120/150 grade asphalt concrete when polymer modifiers are applied. It is felt that Polybilt may have been handicapped structurally by the use of 85/100 penetration grade asphalt and softeners. Moreover, using softeners necessitates another addition to the asphalt. This provides another opportunity for incomplete mixing, and/or operator error, adding too much or too little material. Any future test sections should use the same brand and grade of asphalt. This eliminates an additional variable that must be included in the analyses.

The majority of the cracking that has occurred in the five years of study has been reflective. The reflection has occurred in the passing lanes and on the shoulders. Reflective cracking has not been documented in the driving lanes. This action seems to have eliminated the reflection of pre-construction cracks from the driving lanes on this project. A cost benefit analysis of trenching the whole pavement width to reduce the reflective cracking verses transverse crack maintenance should be carried out for the life cycle. Another MDT/MSU project, MDT Research Project No. 8123, entitled "Methods for Remediation of Stripped Asphalt Pavement: Research and Investigation", may offer further evidence to support or refute the benefits of milling the full width prior to overlaying. Detailed distress maps were made of the test and control sections, including the pre-construction cracking. Also, the overlay asphalt cement was modified with a polymer. The control sections were milled the entire width of the

pavement prior to overlaying. If milling will truly aid in the reduction of reflective cracking, it should be demonstrated by the evolution of that project. It is, therefore, recommended that the data obtained from the stripped asphalt study be used in conjunction with what was seen in this investigation to determine the future of milling.

Another item to consider in the layout of any future test sections is the geometry of the sections. A straight, relatively level test section will reduce variables requiring attention of the investigator(s), thus improving the value of the research. Our test sections incorporated changes in both vertical and horizontal alignment. The only product whose performance may have been influenced by this was the Exxon control section. Exxon was on the steepest uphill sections. But, as the changes are not very pronounced, their effects in skewing the results of this study are minimal.

With the test sections in place, continuing this research would be economically prudent. It is recommended that field surveys continue in the future at five year intervals until any portion of the test sections is overlaid. The cost of doing a survey, compiling the data, and writing a report is less then $5000.00 per five year period. Continuing the research in this fashion will provide a cost effective means of on-going tracking of the deterioration of the pavements. Knowledge that can be gained from the five year reports includes:

1. Data to track the pavement's remaining life.

2. Accurate tracking of the progression of rut growth. Will the modified sections continue to resist rutting over a longer term? Will the modifiers offer a more tangible benefit in the passing lane with time?

3. Progressive tracking of pavement deterioration from further cracking. How will the modified sections respond to the crack sealing operations of the past Spring?

4. Continued tracking will allow for more accurate cost analysis. Better incorporation of maintenance costs can be included in the economic analysis.

5. The validity of conclusions will improve with further research. As was seen with the analysis of the cracking, errors can be made. At two years there was no difference in the performance of the materials resistance to cracking. Now at five years the modifiers are offering superior resistance to cracking.

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3. Jonutis, S (1996), Montana Department of Transportation - Glendive,.

4. Stratigic Highway Research Program (1993), "Distress Identification Manual For Long-Term Pavement Performance Studies", SHRP-P-338.

5. Armijo, J.; and Pradhan, M. (1992), "First Annual Interim Report, Field Experimental Project Utilizing Asphalt Modifiers".

6. Armijo, J.; and Pradhan, M. (1993), "Second Annual Interim Report, Field Experimental Project Utilizing Asphalt Modifiers".

7. Armijo, J.; and Greenheck, J. (1994), "Third Annual Interim Report, Field Experimental Project Utilizing Asphalt Modifiers".

8. National Oceanic and Atmospheric Administration, (1985), "Climates of the States" 3rd Edition.

# APPENDIX A

# PHOTOGRAPHS

**Photo A:** Pre-construction, transverse cracking, rutting, and bleeding.

**Photo B:** Pre-construction sealed crack.

**Photo C:** Chip sealing and overlays to driving lane.

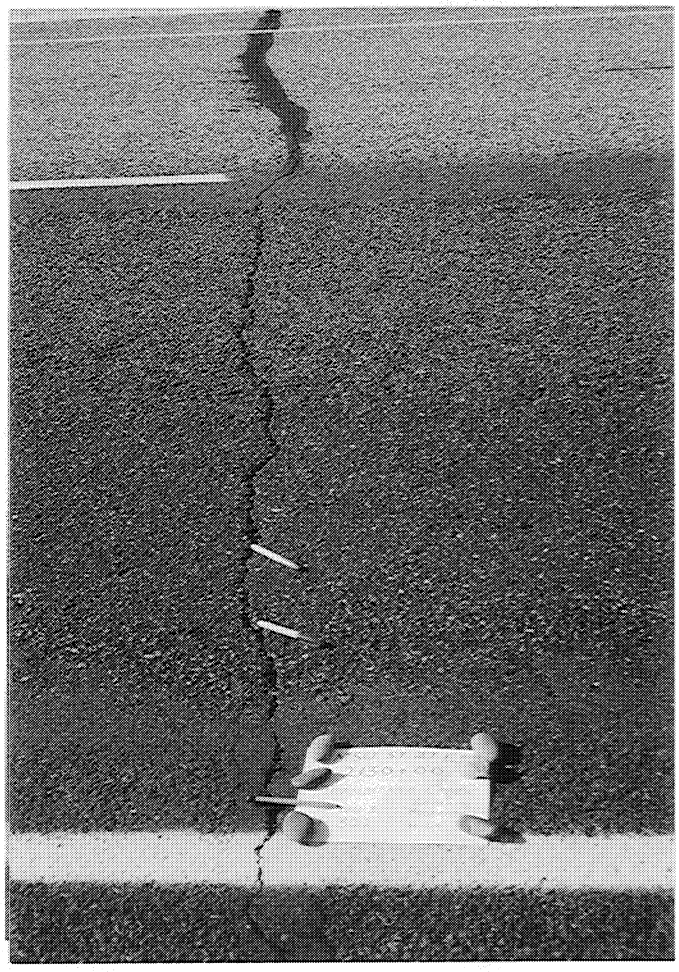


**Photo D:** Pre-construction transverse crack.

**Photo E:** Pre-construction longitudinal crack.

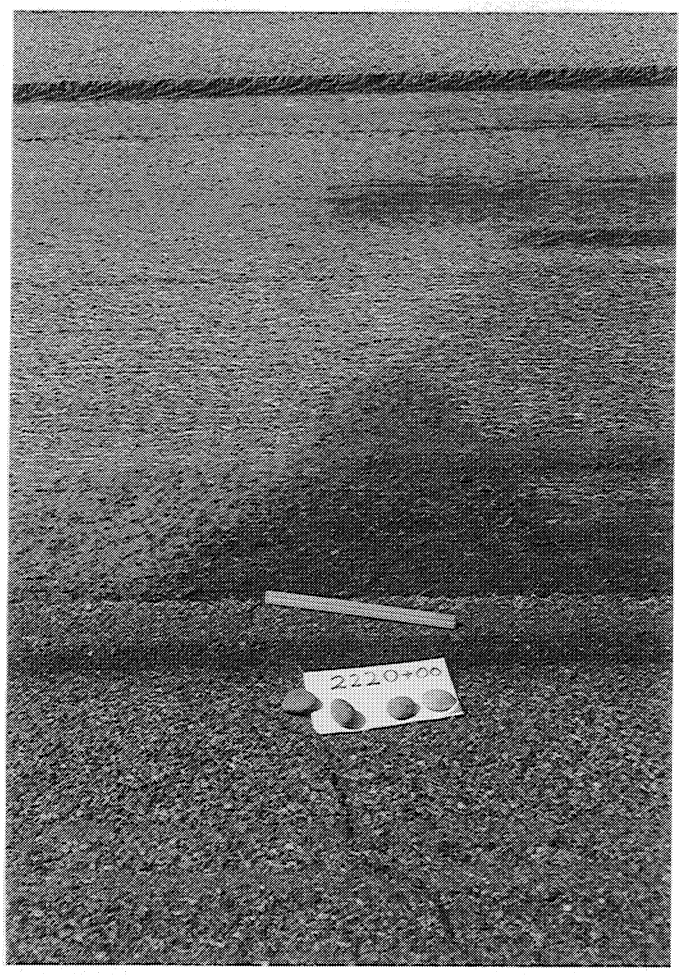



**Photo F:** Milled surface prior to application of tact.

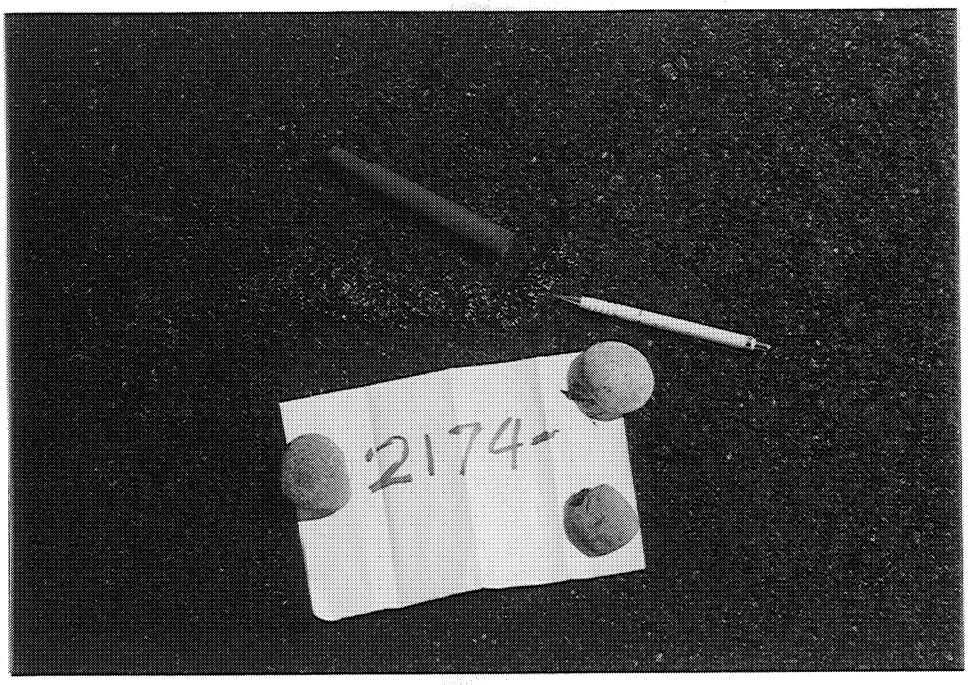



**Photo G:** Post-construction surface with polymer globule.

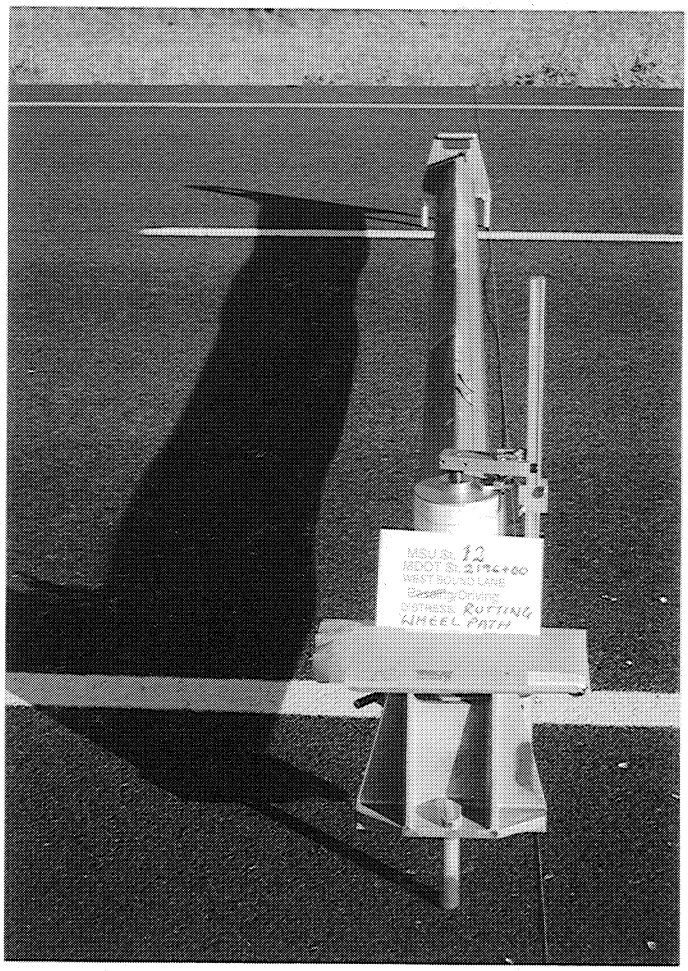



**Photo H:** First annual rutting in control section and prophilograph.

**Photo I:** Raveling form first annual evaluation.

**Photo J:** Spot bleeding from first annual survey.

**Photo K:** Polished aggregate and bleeding from first annual evaluation.

**Photo L:** Raveling, weathering, and transverse cracking from second annual evaluation.

**Photo M:** Polished aggregate, cracking with seeping water from second annual evaluation.

**Photo N:** Bleeding from second annual evaluation.

**Photo O:** Large bleeding spot from second annual evaluation.

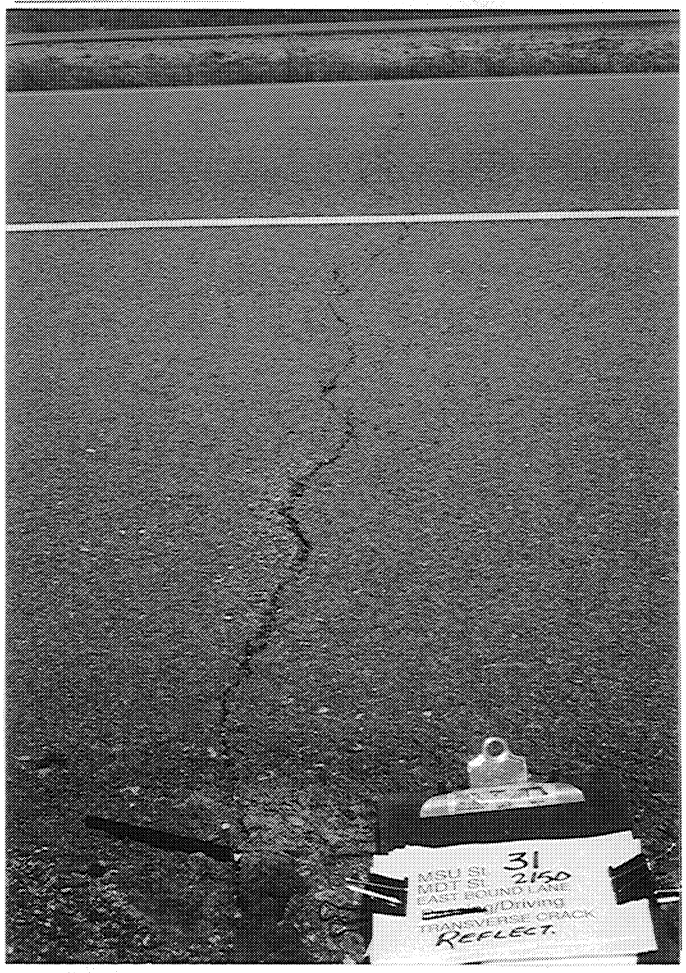



**Photo P:** Transverse cracking from second annual evaluation.

**Photo Q:** Reflective transverse crack from second annual evaluation.

**Photo R:** Transverse crack from the fifth annual evaluation.

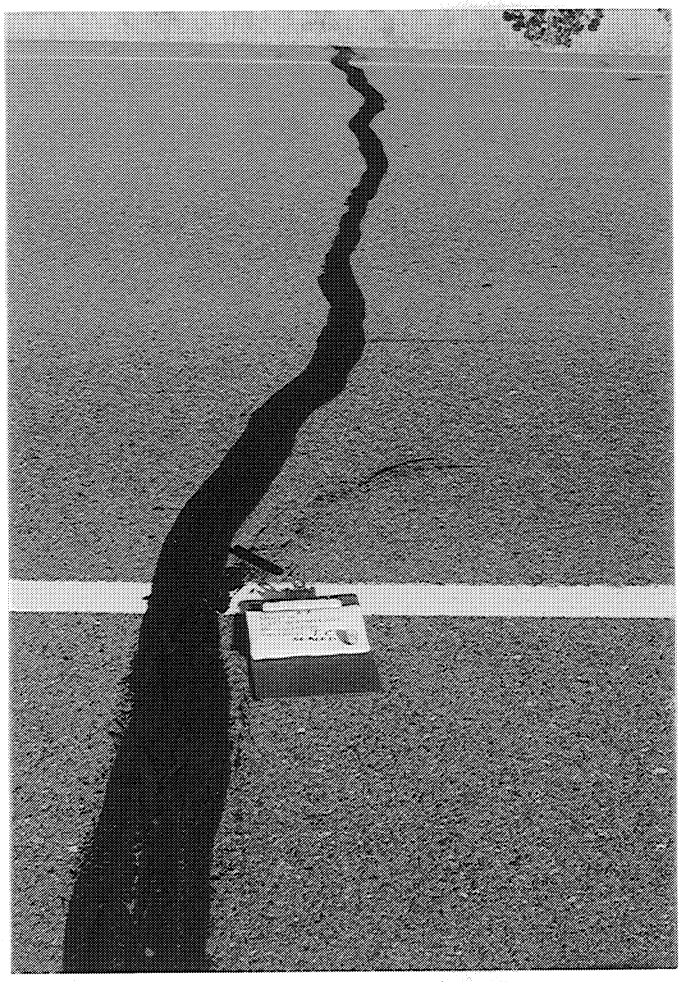


**Photo S:** Sealed transverse crack from fifth annual evaluation.

**Photo T:** Sealed longitudinal and transverse cracks from fifth annual evaluation.

**Photo U:** Sealed edge cracking from fifth annual evaluation.

**Photo V:** Asphalt globule from fifth annual evaluation.

# APPENDIX B

# STATISTICS

**Table 25: Crack Density Data**

Cracks per Station:

| Polybilt | Exxon | Kraton |
|---|---|---|
| 11 | 13 | 14 |
| 15 | 12 | 9 |
| 9 | 19 | 8 |
| 12 | 19 | 6 |
| 8 | 22 | 6 |
| 13 | 20 | 4 |
| 12 | 15 | 11 |
| 8 | 8 | 11 |
| 13 | 11 | 7 |
| 15 | 13 | 8 |
| 8 | 14 | 8 |
| 9 | 14 | 9 |
| 6 | 13 | 8 |
| 12 | 9 | 9 |
| 14 | | 9 |
| 14 | | 7 |
| 11 | | 4 |
| 19 | | 10 |
| 14 | | 9 |

**Polybilt vs. Kraton (Cracking)**

Unpaired t test

P value 0.0006

Are means significantly different? ($P < 0.05$) Yes

One- or two-tailed P value? Two-tailed

t, df t=3.790 df=36

How big is the difference?

Mean ± SEM of Polybilt. 11.74 ± 0.7329 N=19

Mean ± SEM of Kraton. 8.263 ± 0.5506 N=19

Difference between means 3.474 ± 0.9167

95% confidence interval -5.334 to -1.613

R squared 0.2852

F test to compare variances

F,DFn, Dfd 1.772, 18, 18

P value 0.1173

Are variances significantly different? No

**Polybilt vs. Exxon (Cracking)**

Unpaired t test
P value 0.0436
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=2.104 df=31

How big is the difference?
Mean ± SEM of Polybilt. 11.74 ± 0.7329 N=19
Mean ± SEM of Exxon. 14.43 ± 1.113 N=14
Difference between means -2.692 ± 1.280
95% confidence interval 0.08158 to 5.302
R squared 0.1249

F test to compare variances
F,DFn, Dfd 1.699, 13, 18
P value 0.1469
Are variances significantly different? No

**Kraton vs. Exxon (Cracking)**

Unpaired t test
P value P<0.0001
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=5.372 df=31

How big is the difference?
Mean ± SEM of Exxon. 14.43 ± 1.113 N=14
Mean ± SEM of Kraton. 8.263 ± 0.5506 N=19
Difference between means 6.165 ± 1.148
95% confidence interval -8.506 to -3.824
R squared 0.4821

F test to compare variances
F,DFn, Dfd 3.010, 13, 18
P value 0.0160
Are variances significantly different? Yes

**Figure B-1:** Scattering of Crack Density.

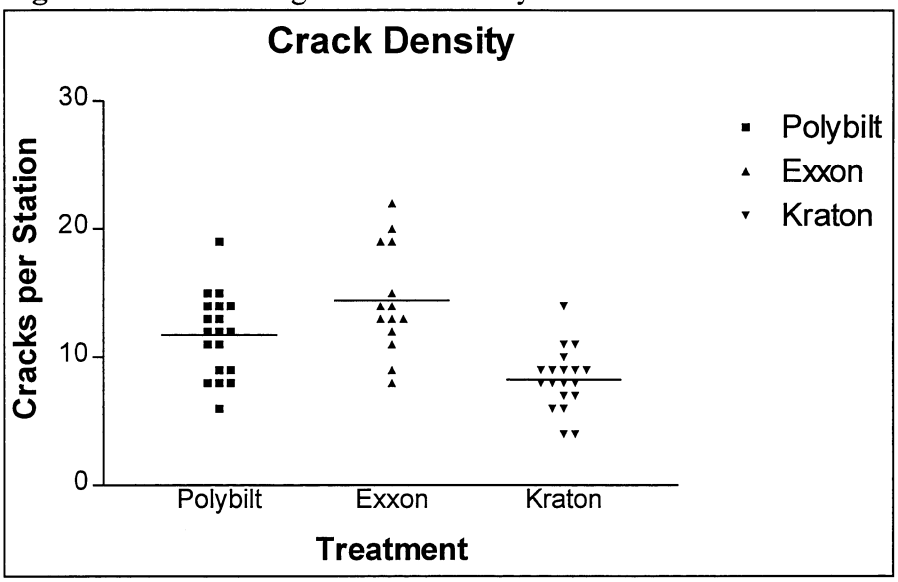


**Table 26: Polybilt Eastbound Driving Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 27 | 0.21 | 0.18 |
| 28 | 0.17 | 0.17 |
| 29 | 0.19 | 0.17 |
| 30 | 0.20 | 0.19 |
| 31 | 0.17 | 0.30 |
| 32 | 0.17 | 0.16 |
| 33 | 0.10 | 0.15 |
| 34 | 0.19 | 0.17 |
| 35 | 0.10 | 0.12 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.5742
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=0.5736 df=16

How big is the difference?
Mean ± SEM of LWP. 0.1667 ± 0.01344 N=9
Mean ± SEM of RWP. 0.1789 ± 0.01654 N=9
Difference between means -0.01222 ± 0.02131
95% confidence interval -0.03295 to 0.05739
R squared 0.02015

F test to compare variances
F,DFn, Dfd 1.515, 8, 8
P value 0.2853
Are variances significantly different? No

**Figure B-2:** Rut Depth Scattering for Polybilt Eastbound Driving Lane.

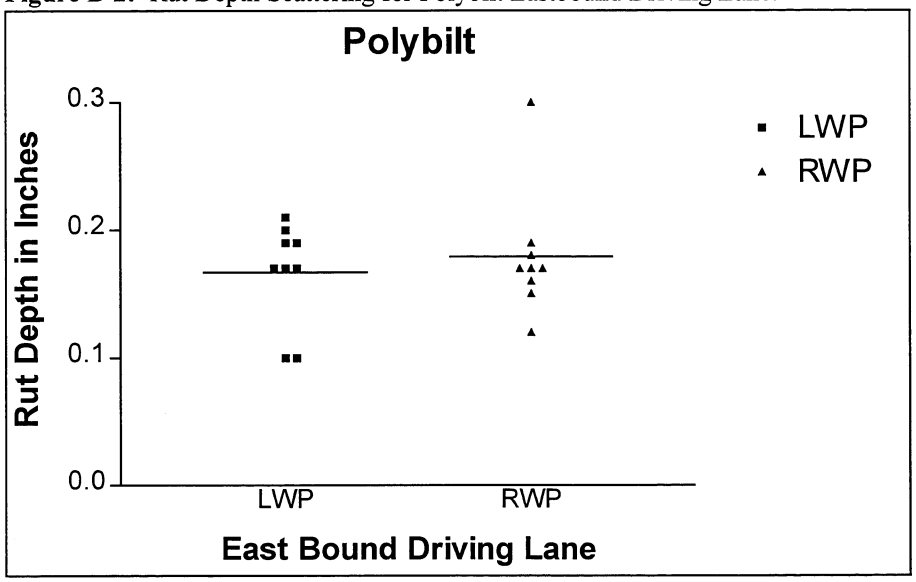


**Table 27: Polybilt Eastbound Passing Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 27 | 0.11 | 0.08 |
| 28 | 0.05 | 0.05 |
| 29 | 0.07 | 0.08 |
| 30 | 0.08 | 0.08 |
| 31 | 0.07 | 0.08 |
| 32 | 0.08 | 0.07 |
| 33 | 0.08 | 0.09 |
| 34 | 0.11 | 0.12 |
| 35 | 0.07 | 0.09 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.8069
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=0.2485 df=16

How big is the difference?
Mean ± SEM of LWP. 0.0800 ± 0.006455 N=9
Mean ± SEM of RWP. 0.08222 ± 0.006186 N=9
Difference between means -0.002222 ± 0.008941
95% confidence interval -0.01673 to 0.02118
R squared 0.003846

F test to compare variances
F,DFn, Dfd 1.089, 8, 8
P value 0.4536
Are variances significantly different? No

**Figure B-3:** Rut Depth Scattering for Polybilt Eastbound Passing Lane.

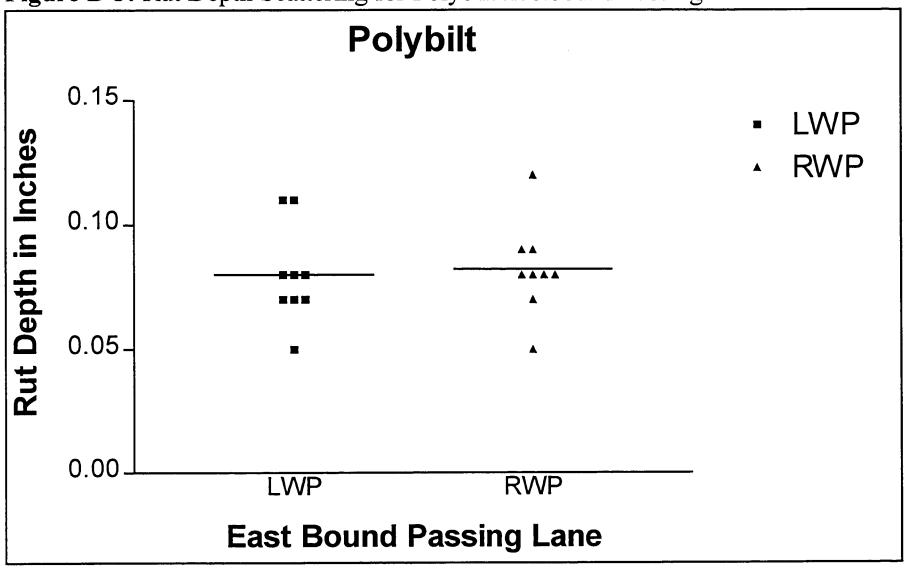


**Table 28: Polybilt Westbound Driving Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 1 | 0.19 | 0.24 |
| 2 | 0.22 | 0.20 |
| 3 | 0.12 | 0.24 |
| 4 | 0.20 | 0.17 |
| 5 | 0.14 | 0.20 |
| 6 | 0.12 | 0.14 |
| 7 | 0.09 | 0.16 |
| 8 | 0.12 | 0.14 |
| 9 | 0.12 | 0.17 |
| 10 | 0.13 | 0.15 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.0607
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=2.001 df=18

How big is the difference?
Mean ± SEM of LWP. 0.1450 ± 0.01352 N=10
Mean ± SEM of RWP. 0.1810 ± 0.01187 N=10
Difference between means -0.0360 ± 0.01799
95% confidence interval -0.001805 to 0.07381
R squared 0.1819

F test to compare variances
F,DFn, Dfd 1.296, 9, 9
P value 0.3527
Are variances significantly different? No

**Figure B-4:** Rut Depth Scattering for Polybilt Westbound Driving Lane.

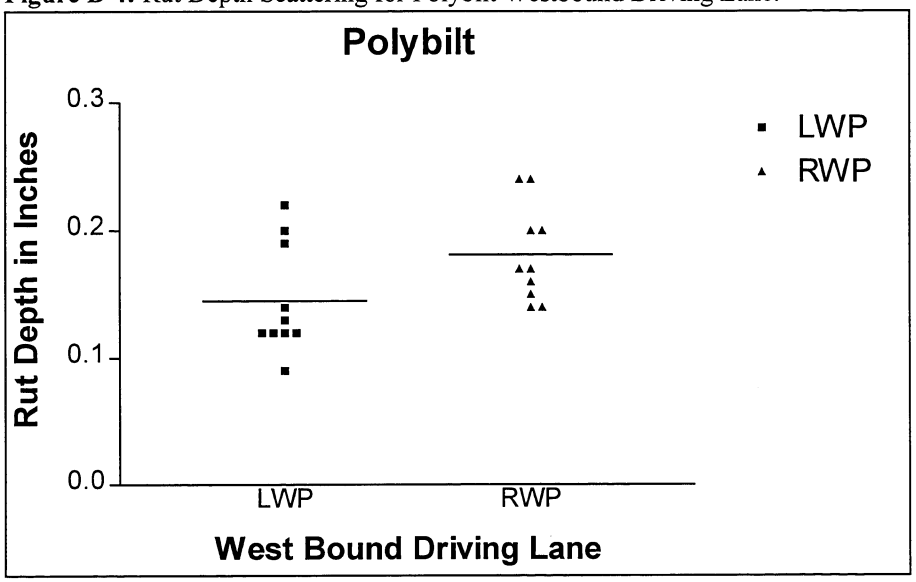


**Table 29: Polybilt Westbound Passing Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 1. | 0.06 | 0.07 |
| 2. | 0.09 | 0.07 |
| 3. | 0.06 | 0.06 |
| 4. | 0.07 | 0.09 |
| 5. | 0.03 | 0.03 |
| 6. | 0.05 | 0.08 |
| 7. | 0.07 | 0.14 |
| 8. | 0.04 | 0.10 |
| 9. | 0.07 | 0.07 |
| 10. | 0.08 | 0.15 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.0776
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=1.872 df=18

How big is the difference?
Mean ± SEM of LWP. 0.0620 ± 0.005735 N=10
Mean ± SEM of RWP. 0.0860 ± 0.01147 N=10
Difference between means -0.0240 ± 0.01282
95% confidence interval -0.002942 to 0.05094
R squared 0.1629

F test to compare variances
F,DFn, Dfd 4.000, 9, 9
P value 0.0255
Are variances significantly different? Yes

**Figure B-5:** Rut Depth Scattering for Polybilt Westbound Passing Lane.

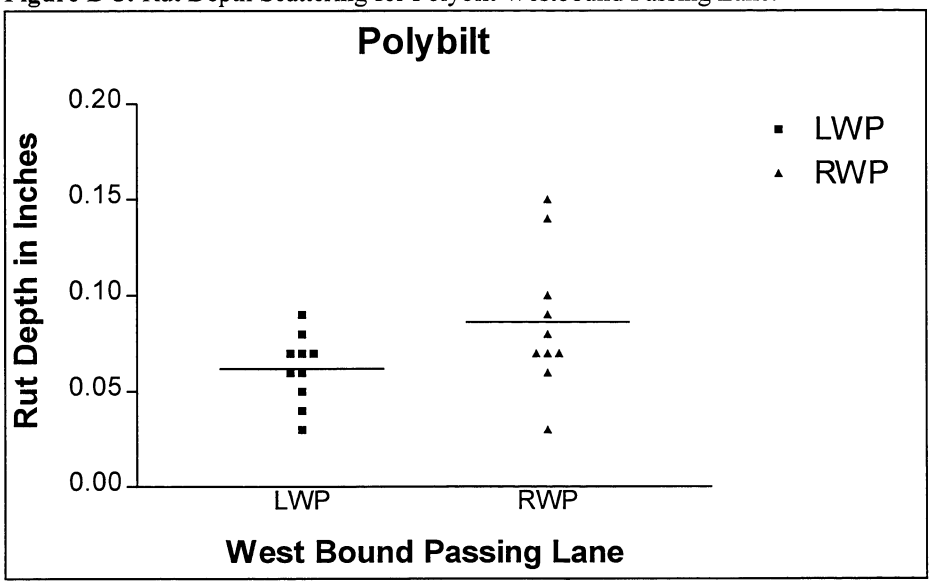


**Table 30: Exxon Eastbound Driving Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 36 | 0.25 | 0.30 |
| 37 | 0.49 | 0.49 |
| 38 | 0.50 | 0.56 |
| 39 | 0.54 | 0.61 |
| 40 | 0.51 | 0.51 |
| 41 | 0.68 | 0.63 |
| 42 | 0.64 | 0.63 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.8064
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=0.2505 df=12

How big is the difference?
Mean ± SEM of LWP. 0.5157 ± 0.05223 N=7
Mean ± SEM of RWP. 0.5329 ± 0.04422 N=7
Difference between means -0.01714 ± 0.06844
95% confidence interval -0.1320 to 0.1663
R squared 0.005202

F test to compare variances
F,DFn, Dfd 1.395, 6, 6
P value 0.3482
Are variances significantly different? No

**Figure B-6:** Rut Depth Scattering for Exxon Eastbound Driving Lane.

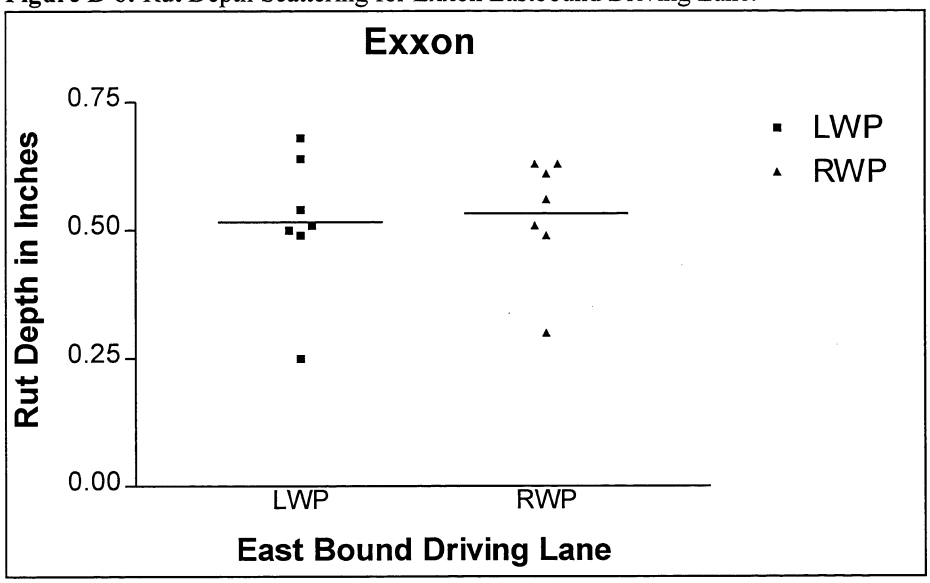


**Table 31: Exxon Eastbound Passing Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 36 | 0.06 | 0.06 |
| 37 | 0.09 | 0.05 |
| 38 | 0.09 | 0.09 |
| 39 | 0.12 | 0.12 |
| 40 | 0.11 | 0.08 |
| 41 | 0.13 | 0.06 |
| 42 | 0.12 | 0.09 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.0850
Are means significantly different? (P < 0.05) No
One- or two-tailed P value? Two-tailed
t, df t=1.877 df=12

How big is the difference?
Mean ± SEM of LWP. 0.1029 ± 0.009184 N=7
Mean ± SEM of RWP. 0.07857 ± 0.009110 N=7
Difference between means 0.02429 ± 0.01294
95% confidence interval -0.05247 to 0.003902
R squared 0.2270

F test to compare variances
F,DFn, Dfd 1.016, 6, 6
P value 0.4924
Are variances significantly different? No

**Figure B-7:** Rut Depth Scattering for Exxon Eastbound Passing Lane.

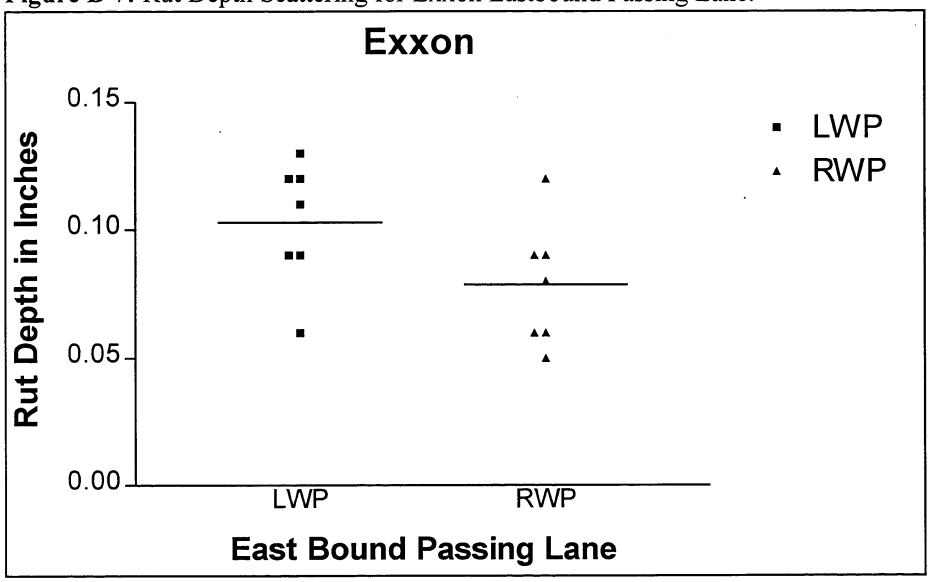


**Table 32: Exxon Westbound Driving Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 11. | 0.53 | 0.57 |
| 12. | 0.59 | 0.60 |
| 13. | 0.56 | 0.57 |
| 14. | 0.54 | 0.50 |
| 15. | 0.49 | 0.53 |
| 16. | 0.45 | 0.51 |
| 17. | 0.41 | 0.54 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.2199
Are means significantly different? (P < 0.05) No
One- or two-tailed P value? Two-tailed
t, df t=1.294 df=12

How big is the difference?
Mean ± SEM of LWP. 0.5100 ± 0.02400 N=7
Mean ± SEM of RWP. 0.5457 ± 0.01360 N=7
Difference between means -0.03571 ± 0.02759
95% confidence interval -0.02440 to 0.09583
R squared 0.1225

F test to compare variances
F,DFn, Dfd 3.114, 6, 6
P value 0.0963
Are variances significantly different? No

**Figure B-8:** Rut Depth Scattering for Exxon Westbound Driving Lane.

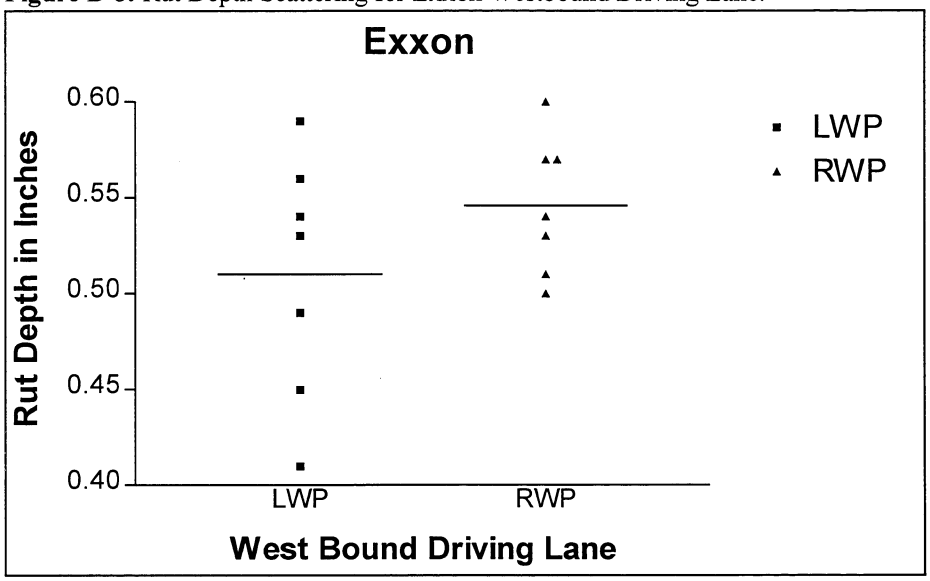


**Table 33: Exxon Westbound Passing Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 11. | 0.08 | 0.09 |
| 12. | 0.08 | 0.13 |
| 13. | 0.12 | 0.20 |
| 14. | 0.09 | 0.10 |
| 15. | 0.14 | 0.15 |
| 16. | 0.09 | 0.10 |
| 17. | 0.15 | 0.13 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.2605
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=1.181 df=12

How big is the difference?
Mean ± SEM of LWP. 0.1071 ± 0.01107 N=7
Mean ± SEM of RWP. 0.1286 ± 0.01438 N=7
Difference between means -0.02143 ± 0.01815
95% confidence interval -0.01811 to 0.06097
R squared 0.1041

F test to compare variances
F,DFn, Dfd 1.689, 6, 6
P value 0.2701
Are variances significantly different? No

**Figure B-9:** Rut Depth Scattering for Exxon Westbound Passing Lane.

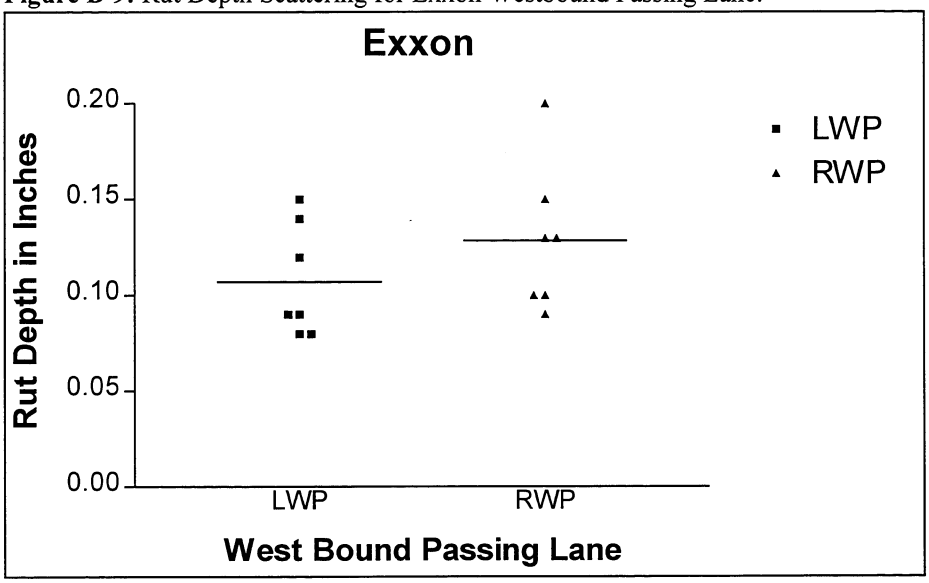


**Table 34: Kraton Eastbound Driving Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 43 | 0.12 | 0.13 |
| 44 | 0.20 | 0.19 |
| 45 | 0.18 | 0.19 |
| 46 | 0.21 | 0.19 |
| 47 | 0.16 | 0.16 |
| 48 | 0.19 | 0.13 |
| 49 | 0.17 | 0.18 |
| 50 | 0.18 | 0.15 |
| 51 | 0.15 | 0.18 |
| 52 | 0.20 | 0.21 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.6860
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=0.4108 df=18

How big is the difference?
Mean ± SEM of LWP. 0.1760 ± 0.008589 N=10
Mean ± SEM of RWP. 0.1710 ± 0.008622 N=10
Difference between means 0.005000 ± 0.01217
95% confidence interval -0.03057 to 0.02057
R squared 0.009290

F test to compare variances
F,DFn, Dfd 1.008, 9, 9
P value 0.4956
Are variances significantly different? No

**Figure B-10:** Rut Depth Scattering for Kraton Eastbound Driving Lane.

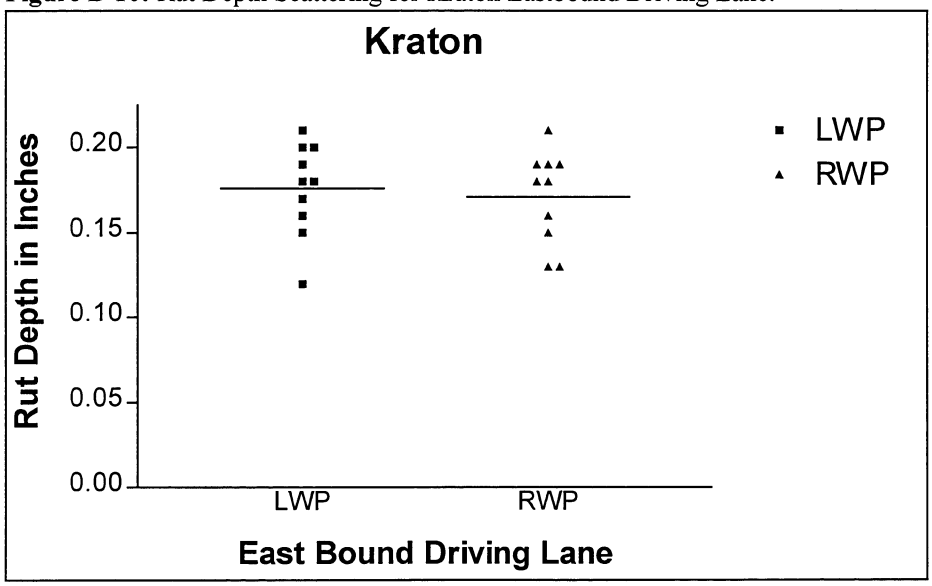


**Table 35: Kraton Eastbound Passing Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 43 | 0.07 | 0.04 |
| 44 | 0.08 | 0.08 |
| 45 | 0.07 | 0.04 |
| 46 | 0.06 | 0.04 |
| 47 | 0.09 | 0.02 |
| 48 | 0.07 | 0.04 |
| 49 | 0.03 | 0.06 |
| 50 | 0.10 | 0.07 |
| 51 | 0.07 | 0.09 |
| 52 | 0.08 | 0.06 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.0626
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=1.985 df=18

How big is the difference?
Mean ± SEM of LWP. 0.0720 ± 0.005925 N=10
Mean ± SEM of RWP. 0.0540 ± 0.006864 N=10
Difference between means 0.0180 ± 0.009068
95% confidence interval -0.03705 to 0.001051
R squared 0.1796

F test to compare variances
F,DFn, Dfd 1.342, 9, 9
P value 0.3343
Are variances significantly different? No

**Figure B-11** Rut Depth Scattering for Kraton Eastbound Passing Lane.

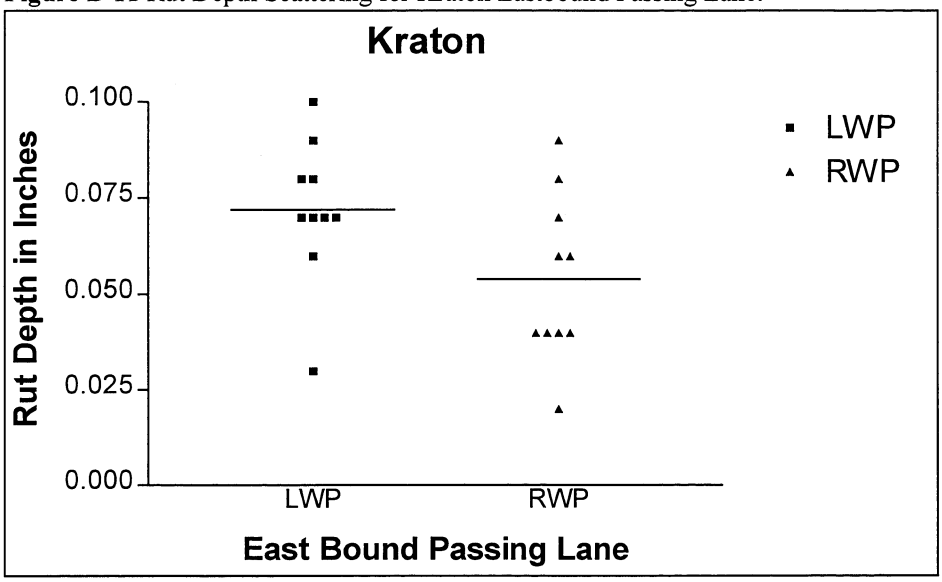


**Table 36: Kraton Westbound Driving Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 18 | 0.18 | 0.20 |
| 19 | 0.17 | 0.21 |
| 20 | 0.11 | 0.18 |
| 21 | 0.17 | 0.13 |
| 22 | 0.11 | 0.12 |
| 23 | 0.09 | 0.18 |
| 24 | 0.11 | 0.10 |
| 25 | 0.10 | 0.10 |
| 26 | 0.08 | 0.09 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.3104
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=1.048 df=16

How big is the difference?
Mean ± SEM of LWP. 0.1244 ± 0.01271 N=9
Mean ± SEM of RWP. 0.1456 ± 0.01564 N=9
Difference between means -0.02111 ± 0.02015
95% confidence interval -0.02161 to 0.06384
R squared 0.06418

F test to compare variances
F,DFn, Dfd 1.516, 8, 8
P value 0.2848
Are variances significantly different? No

**Figure B-12:** Rut Depth Scattering for Kraton Westbound Driving Lane.

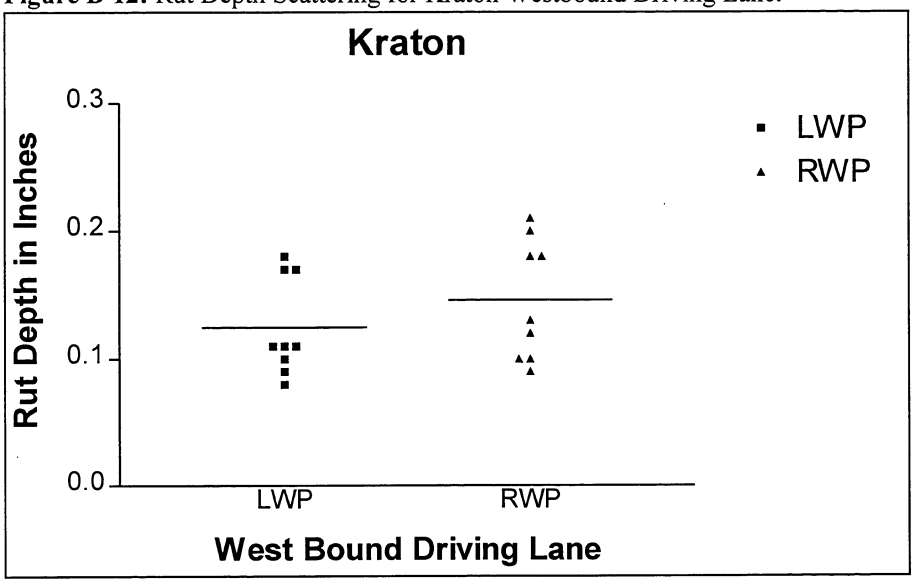


**Table 37: Kraton Westbound Passing Lane**
Rut Depth in Inches:

| Station # | LWP | RWP |
|---|---|---|
| 18. | 0.09 | 0.16 |
| 19 | 0.07 | 0.10 |
| 20 | 0.06 | 0.13 |
| 21 | 0.10 | 0.08 |
| 22 | 0.04 | 0.03 |
| 23 | 0.07 | 0.13 |
| 24 | 0.05 | 0.09 |
| 25 | 0.06 | 0.08 |
| 26 | 0.07 | 0.07 |

**Left Wheel Path vs. Right Wheel Path (Rutting)**

Unpaired t test
P value 0.0607
Are means significantly different? (P < 0.05) No
One- or two-tailed P value? Two-tailed
t, df t=2.018 df=16

How big is the difference?
Mean ± SEM of LWP. 0.06778 ± 0.006186 N=9
Mean ± SEM of RWP. 0.09667 ± 0.01291 N=9
Difference between means -0.02889 ± 0.01432
95% confidence interval -0.001460 to 0.05924
R squared 0.2029

F test to compare variances
F,DFn, Dfd 4.355, 8, 8
P value 0.0263
Are variances significantly different? Yes

**Figure B-13:** Rut Depth Scattering for Kraton Westbound Passing Lane.

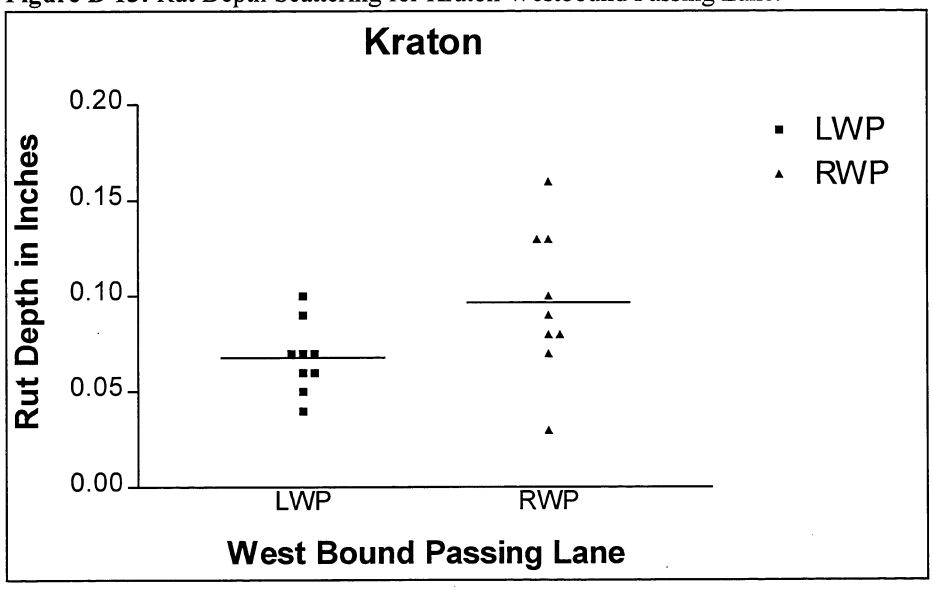


**Table 38: Eastbound Driving Lane Rut Depth in Inches:**

| Eastbound Driving Lane | Polybilt | Exxon | Kraton |
|---|---|---|---|
| LWP | 0.21 | 0.25 | 0.12 |
| | 0.17 | 0.49 | 0.20 |
| | 0.19 | 0.50 | 0.18 |
| | 0.20 | 0.54 | 0.21 |
| | 0.17 | 0.51 | 0.16 |
| | 0.17 | 0.68 | 0.19 |
| | 0.10 | 0.64 | 0.17 |
| | 0.19 | | 0.18 |
| | 0.10 | | 0.15 |
| | | | 0.20 |
| RWP | 0.18 | 0.30 | 0.13 |
| | 0.17 | 0.49 | 0.19 |
| | 0.17 | 0.56 | 0.19 |
| | 0.19 | 0.61 | 0.19 |
| | 0.30 | 0.51 | 0.16 |
| | 0.16 | 0.63 | 0.13 |
| | 0.15 | 0.63 | 0.18 |
| | 0.17 | | 0.15 |
| | 0.12 | | 0.18 |
| | | | 0.21 |

**Polybilt vs. Kraton (Rutting)**

Unpaired t test
P value 0.9512
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=0.06164 df=36

How big is the difference?
Mean ± SEM of Polybilt. 0.1728 ± 0.01044 N=18
Mean ± SEM of Kraton. 0.1735 ± 0.005950 N=20
Difference between means -0.0007222 ± 0.01172
95% confidence interval -0.02305 to 0.02450
R squared 0.0001055

F test to compare variances
F,DFn, Dfd 2.771, 17, 19
P value 0.0173
Are variances significantly different? Yes

**Polybilt vs. Exxon (Rutting)**

Unpaired t test
P value P<0.0001
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=11.24 df=30

How big is the difference?
Mean ± SEM of Polybilt. 0.1728 ± 0.01044 N=18
Mean ± SEM of Exxon. 0.5243 ± 0.03296 N=14
Difference between means -0.3515 ± 0.03128
95% confidence interval 0.2876 to 0.4154
R squared 0.8081

F test to compare variances
F,DFn, Dfd 7.751, 13, 17
P value P<0.0001
Are variances significantly different? Yes

**Kraton vs. Exxon (Rutting)**

Unpaired t test
P value P<0.0001
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=12.39 df=32

How big is the difference?
Mean ± SEM of Exxon. 0.5243 ± 0.03296 N=14
Mean ± SEM of Kraton. 0.1735 ± 0.005950 N=20
Difference between means 0.3508 ± 0.02831
95% confidence interval -0.4085 to -0.2931
R squared 0.8275

F test to compare variances
F,DFn, Dfd 21.48, 13, 19
P value P<0.0001
Are variances significantly different? Yes

**Figure B-14:** Rut Depth Scattering for Eastbound Driving Lane.

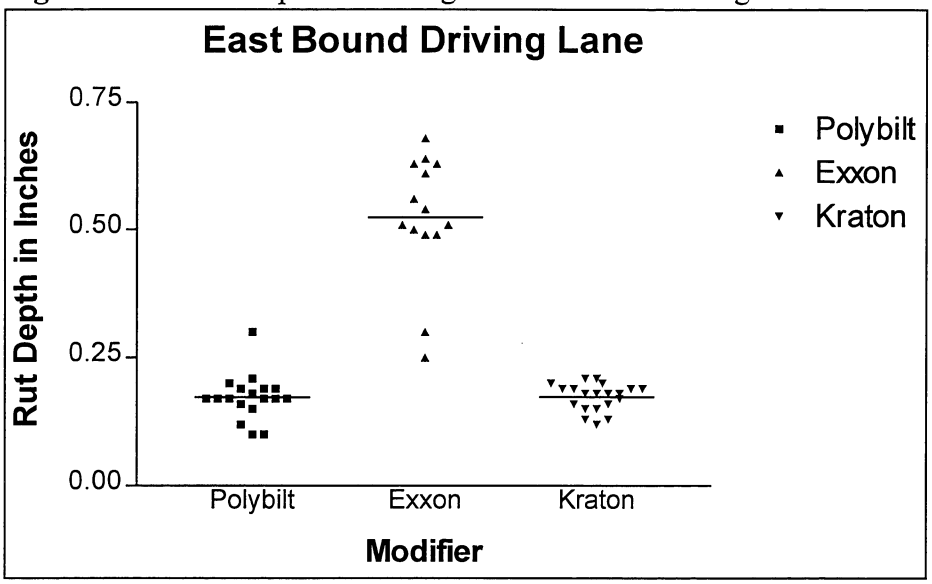


**Table 39: Eastbound Passing Lane Rut Depth in Inches:**

| Eastbound Passing Lane | Polybilt | Exxon | Kraton |
|---|---|---|---|
| LWP | 0.11 | 0.06 | 0.07 |
| | 0.05 | 0.09 | 0.08 |
| | 0.07 | 0.09 | 0.06 |
| | 0.08 | 0.12 | 0.06 |
| | 0.07 | 0.11 | 0.09 |
| | 0.08 | 0.13 | 0.07 |
| | 0.08 | 0.12 | 0.03 |
| | 0.11 | | 0.10 |
| | 0.07 | | 0.08 |
| | | | 0.08 |
| RWP | 0.08 | 0.06 | 0.04 |
| | 0.05 | 0.05 | 0.08 |
| | 0.08 | 0.09 | 0.04 |
| | 0.08 | 0.09 | 0.04 |
| | 0.08 | 0.08 | 0.02 |
| | 0.07 | 0.06 | 0.04 |
| | 0.09 | 0.12 | 0.06 |
| | 0.12 | | 0.07 |
| | 0.09 | | 0.09 |
| | | | 0.06 |

**Polybilt vs. Kraton (Rutting)**

Unpaired t test
P value 0.0097
Are means significantly different? ($P < 0.05$) Yes
One- or two-tailed P value? Two-tailed
t, df t=2.731 df=36

How big is the difference?
Mean ± SEM of Polybilt. 0.08111 ± 0.004345 N=18
Mean ± SEM of Kraton. 0.0630 ± 0.004926 N=20
Difference between means 0.01811 ± 0.006631
95% confidence interval -0.03157 to -0.004653
R squared 0.1716

F test to compare variances
F,DFn, Dfd 1.428, 19, 17
P value 0.2325
Are variances significantly different? No

**Polybilt vs. Exxon (Rutting)**

Unpaired t test
P value 0.2356
Are means significantly different? (P < 0.05) No
One- or two-tailed P value? Two-tailed
t, df t=1.210 df=30

How big is the difference?
Mean ± SEM of Polybilt. 0.08111 ± 0.004345 N=18
Mean ± SEM of Exxon. 0.09071 ± 0.007068 N=14
Difference between means -0.009603 ± 0.007934
95% confidence interval -0.006598 to 0.02580
R squared 0.04656

F test to compare variances
F,DFn, Dfd 2.058, 13, 17
P value 0.0818
Are variances significantly different? No

**Kraton vs. Exxon (Rutting)**

Unpaired t test
P value 0.0022
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=3.325 df=32

How big is the difference?
Mean ± SEM of Exxon. 0.09071 ± 0.007068 N=14
Mean ± SEM of Kraton. 0.0630 ± 0.004926 N=20
Difference between means 0.02771 ± 0.008336
95% confidence interval -0.04470 to -0.01073
R squared 0.2567

F test to compare variances
F,DFn, Dfd 1.441, 13, 19
P value 0.2281
Are variances significantly different? No

**Figure B-15:** Rut Depth Scattering for Eastbound Passing Lane.

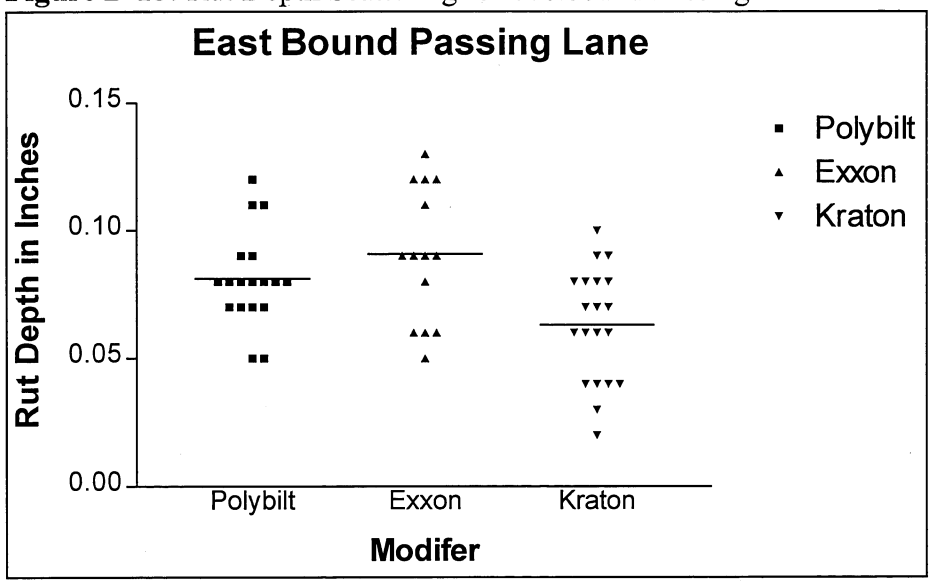


**Table 40: Westbound Driving Lane Rut Depth in Inches:**

| Westbound Driving Lane | Polybilt | Exxon | Kraton |
|---|---|---|---|
| LWP | 0.19 | 0.53 | 0.18 |
| | 0.22 | 0.59 | 0.17 |
| | 0.12 | 0.56 | 0.11 |
| | 0.20 | 0.54 | 0.17 |
| | 0.14 | 0.49 | 0.11 |
| | 0.12 | 0.45 | 0.09 |
| | 0.09 | 0.41 | 0.11 |
| | 0.12 | | 0.10 |
| | 0.12 | | 0.08 |
| | 0.13 | | |
| RWP | 0.24 | 0.57 | 0.20 |
| | 0.20 | 0.60 | 0.21 |
| | 0.24 | 0.57 | 0.18 |
| | 0.17 | 0.50 | 0.13 |
| | 0.20 | 0.53 | 0.12 |
| | 0.14 | 0.51 | 0.18 |
| | 0.16 | 0.54 | 0.10 |
| | 0.14 | | 0.10 |
| | 0.17 | | 0.09 |
| | 0.15 | | |

**Polybilt vs. Kraton (Rutting)**

Unpaired t test
P value 0.0531
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=2.000 df=36

How big is the difference?
Mean ± SEM of Polybilt. 0.1630 ± 0.009682 N=20
Mean ± SEM of Kraton. 0.1350 ± 0.01011 N=18
Difference between means 0.02800 ± 0.01400
95% confidence interval -0.05642 to 0.0004166
R squared 0.09997

F test to compare variances
F,DFn, Dfd 1.020, 19, 17
P value 0.4871
Are variances significantly different? No

**Polybilt vs. Exxon (Rutting)**

Unpaired t test
P value P<0.0001
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=22.06 df=32

How big is the difference?
Mean ± SEM of Polybilt. 0.1630 ± 0.009682 N=20
Mean ± SEM of Exxon. 0.5279 ± 0.01415 N=14
Difference between means -0.3649 ± 0.01654
95% confidence interval 0.3312 to 0.3986
R squared 0.9383

F test to compare variances
F,DFn, Dfd 1.495, 13, 19
P value 0.2070
Are variances significantly different? No

**Kraton vs. Exxon (Rutting)**

Unpaired t test
P value P<0.0001
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=23.21 df=30

How big is the difference?
Mean ± SEM of Exxon. 0.5279 ± 0.01415 N=14
Mean ± SEM of Kraton. 0.1350 ± 0.01011 N=18
Difference between means 0.3929 ± 0.01693
95% confidence interval -0.4274 to -0.3583
R squared 0.9472

F test to compare variances
F,DFn, Dfd 1.525, 13, 17
P value 0.2050
Are variances significantly different? No

**Figure B-16:** Rut Depth Scattering for Westbound Driving Lane.

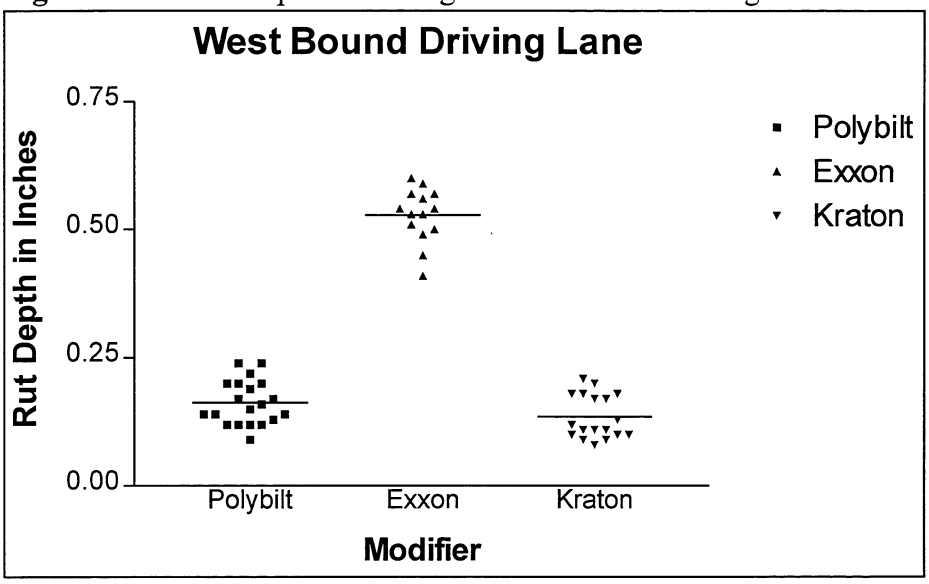


**Table 41: Westbound Passing Lane Rut Depth in Inches:**

| Westbound Passing Lane | Polybilt | Exxon | Kraton |
|---|---|---|---|
| LWP | 0.06 | 0.08 | 0.09 |
| | 0.09 | 0.08 | 0.07 |
| | 0.06 | 0.12 | 0.06 |
| | 0.07 | 0.09 | 0.10 |
| | 0.03 | 0.14 | 0.04 |
| | 0.05 | 0.09 | 0.07 |
| | 0.07 | 0.15 | 0.05 |
| | 0.04 | | 0.06 |
| | 0.07 | | 0.07 |
| | 0.08 | | |
| RWP | 0.07 | 0.09 | 0.16 |
| | 0.07 | 0.13 | 0.10 |
| | 0.08 | 0.20 | 0.13 |
| | 0.09 | 0.10 | 0.08 |
| | 0.03 | 0.15 | 0.03 |
| | 0.08 | 0.10 | 0.13 |
| | 0.14 | 0.13 | 0.09 |
| | 0.01 | | 0.08 |
| | 0.07 | | 0.07 |
| | 0.15 | | |

**Polybilt vs. Kraton (Rutting)**

Unpaired t test
P value 0.2815
Are means significantly different? ($P < 0.05$) No
One- or two-tailed P value? Two-tailed
t, df t=1.093 df=36

How big is the difference?
Mean ± SEM of Polybilt. 0.0705 ± 0.007380 N=20
Mean ± SEM of Kraton. 0.08222 ± 0.007778 N=18
Difference between means -0.01172 ± 0.01072
95% confidence interval -0.01004 to 0.03348
R squared 0.03214

F test to compare variances
F,DFn, Dfd 1.000, 19, 17
P value 0.5033
Are variances significantly different? No

**Polybilt vs. Exxon (Rutting)**

Unpaired t test
P value 0.0003
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=4.044 df=32

How big is the difference?
Mean ± SEM of Polybilt. 0.0705 ± 0.007380 N=20
Mean ± SEM of Exxon. 0.1179 ± 0.009209 N=14
Difference between means -0.04736 ± 0.01171
95% confidence interval 0.02350 to 0.07122
R squared 0.3383

F test to compare variances
F,DFn, Dfd 1.090, 13, 19
P value 0.4210
Are variances significantly different? No

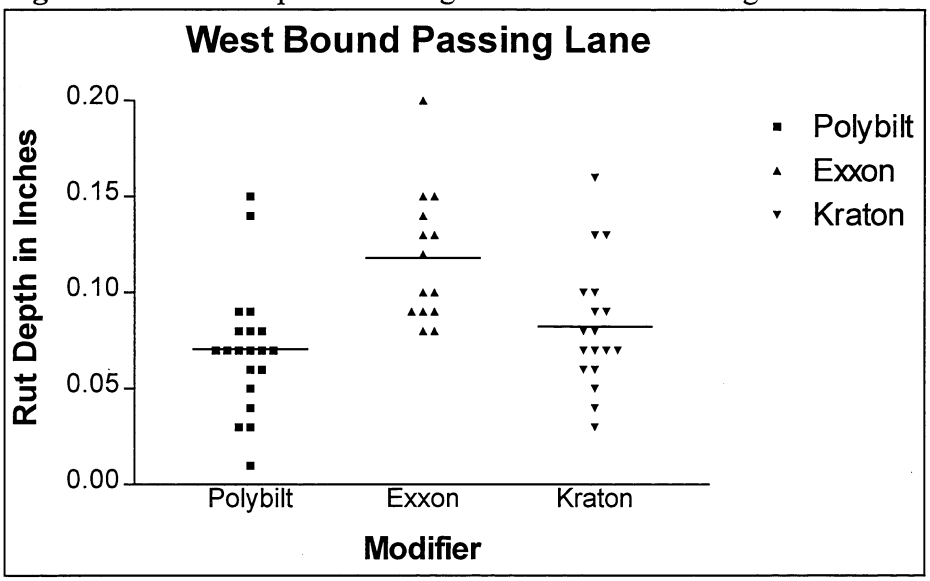
**Kraton vs. Exxon (Rutting)**

Unpaired t test
P value 0.0058
Are means significantly different? (P < 0.05) Yes
One- or two-tailed P value? Two-tailed
t, df t=2.973 df=30

How big is the difference?
Mean ± SEM of Exxon. 0.1179 ± 0.009209 N=14
Mean ± SEM of Kraton. 0.08222 ± 0.007778 N=18
Difference between means 0.03563 ± 0.01199
95% confidence interval -0.06011 to -0.01116
R squared 0.2275

F test to compare variances
F,DFn, Dfd 1.090, 13, 17
P value 0.4258
Are variances significantly different? No

**Figure B-17:** Rut Depth Scattering for Westbound Passing Lane.



# APPENDIX C

# GRAPHS

**Figure C1.1.**

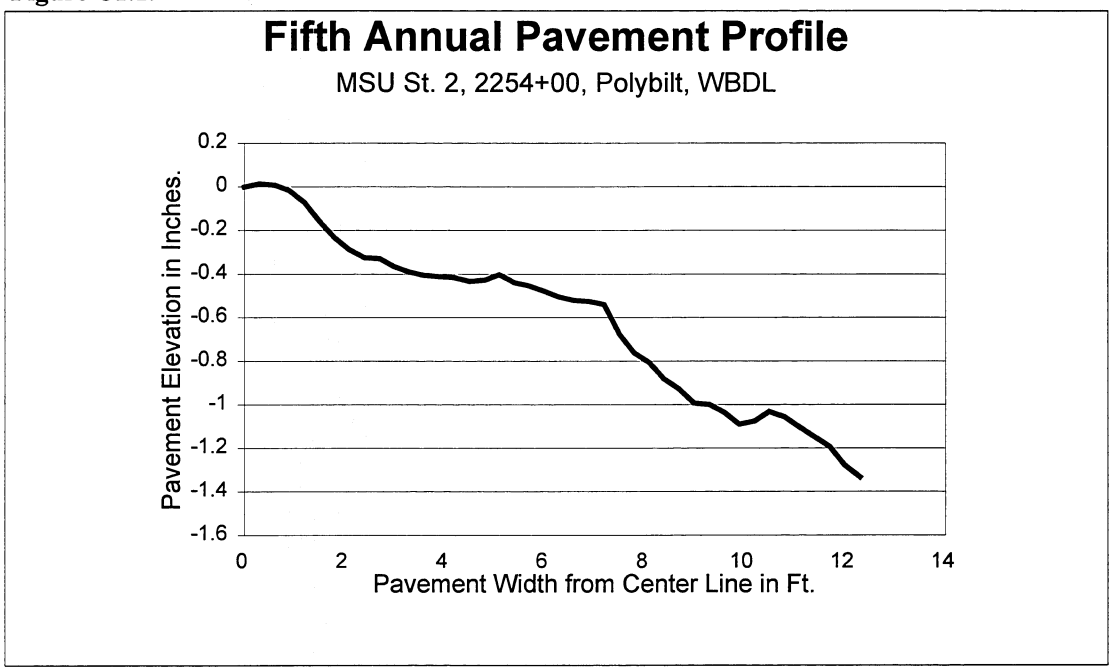



**Figure C1.2.**

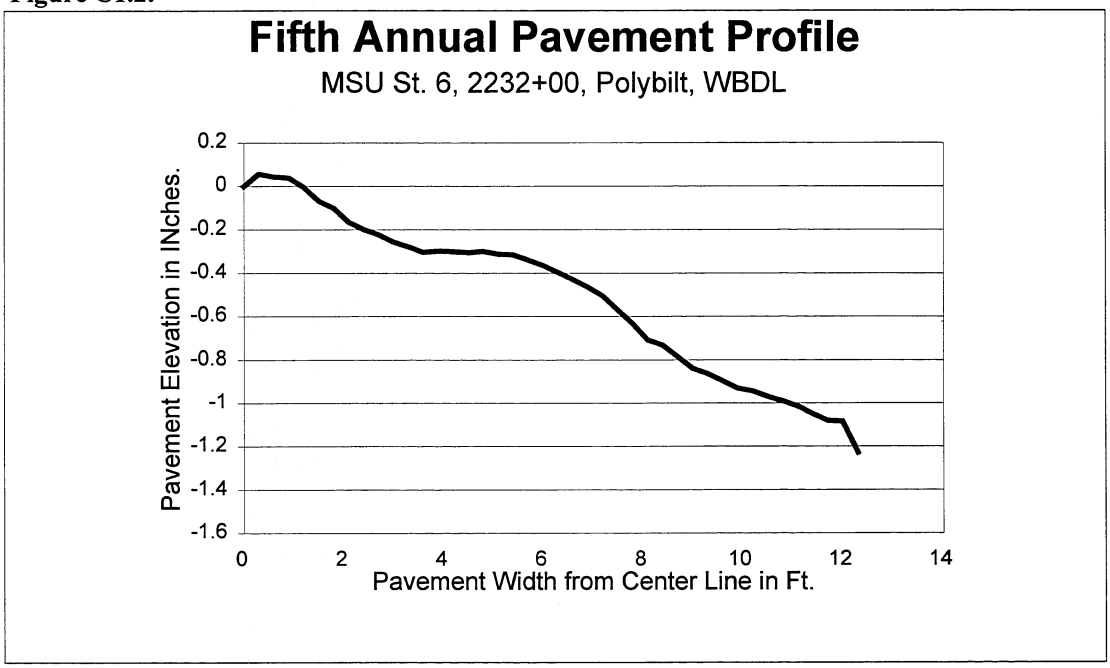


**Figure C1.3.**

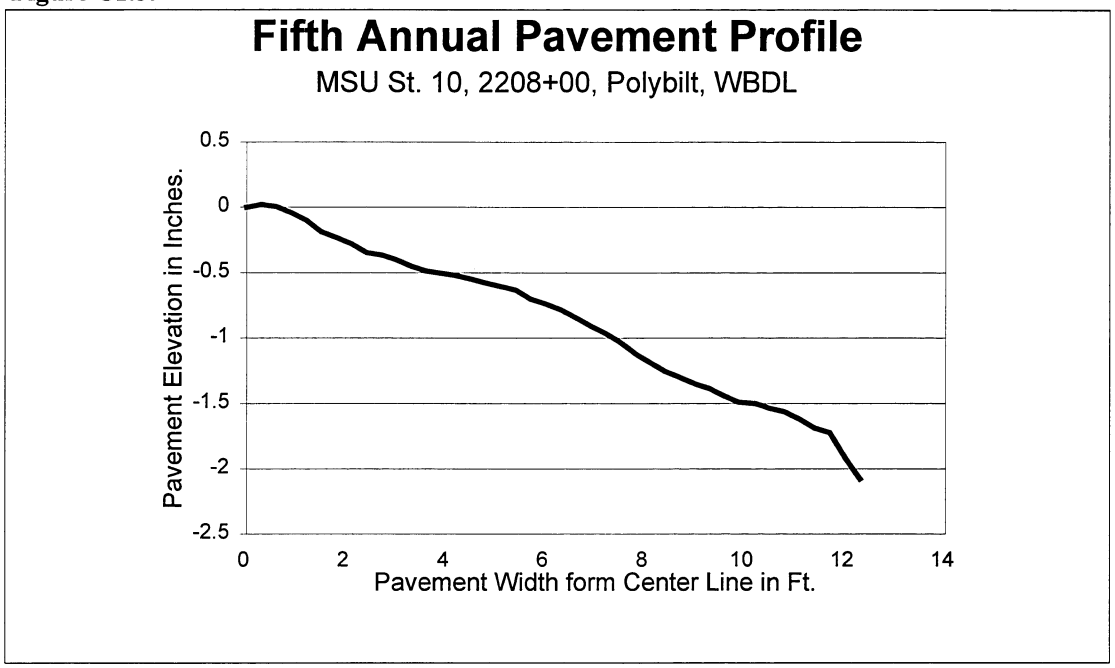



**Figure C1.4.**

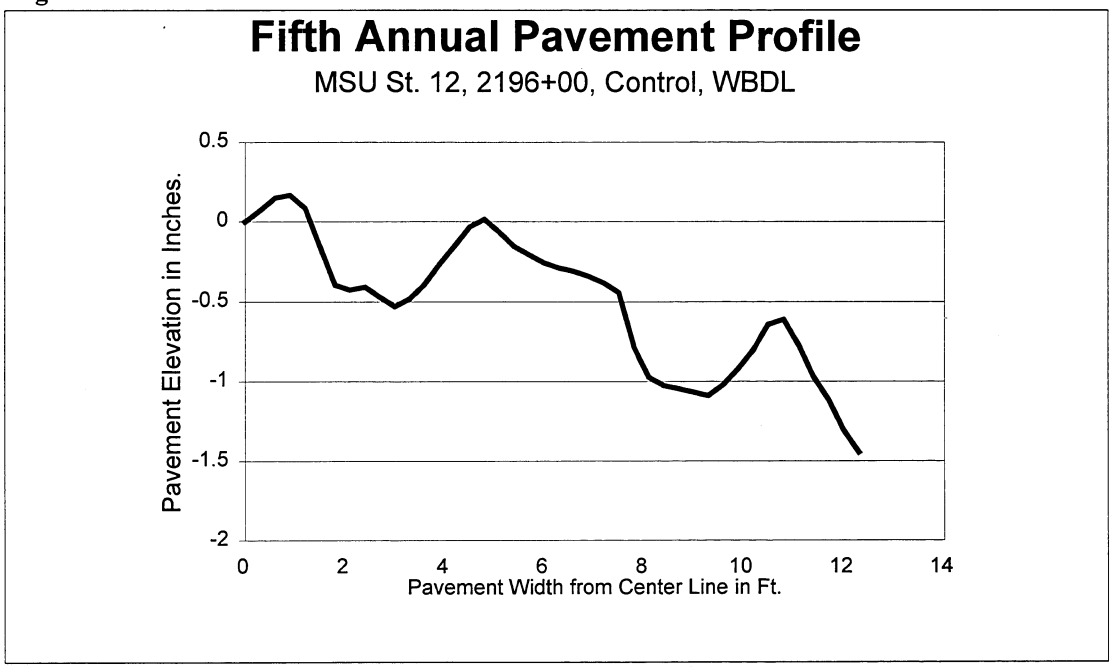


**Figure C1.5.**

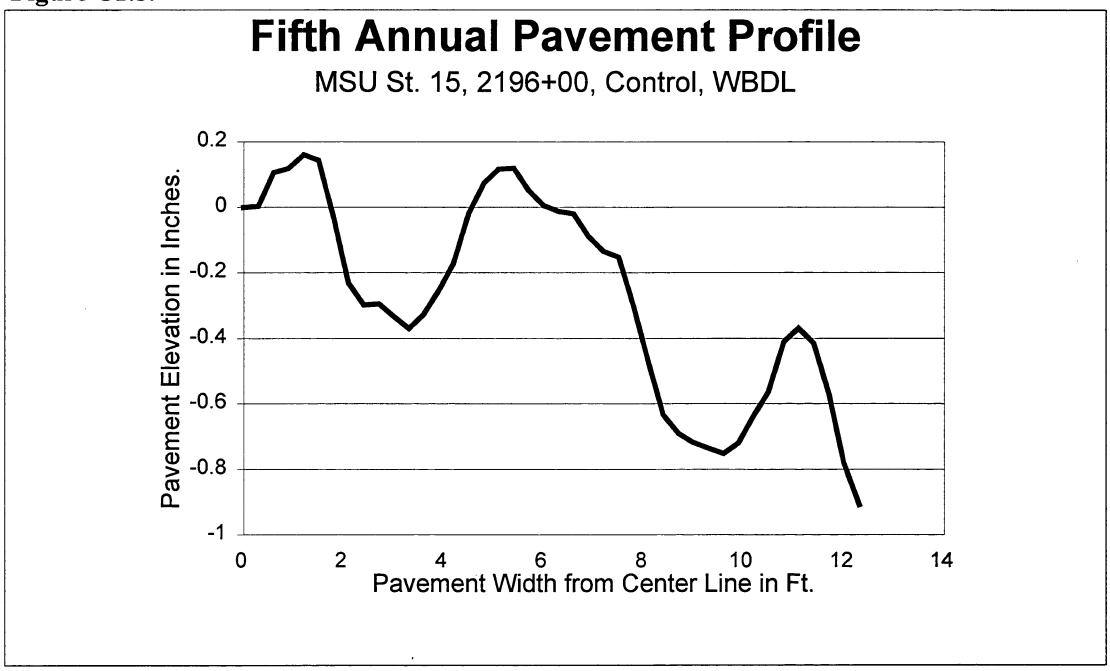



**Figure C1.6.**

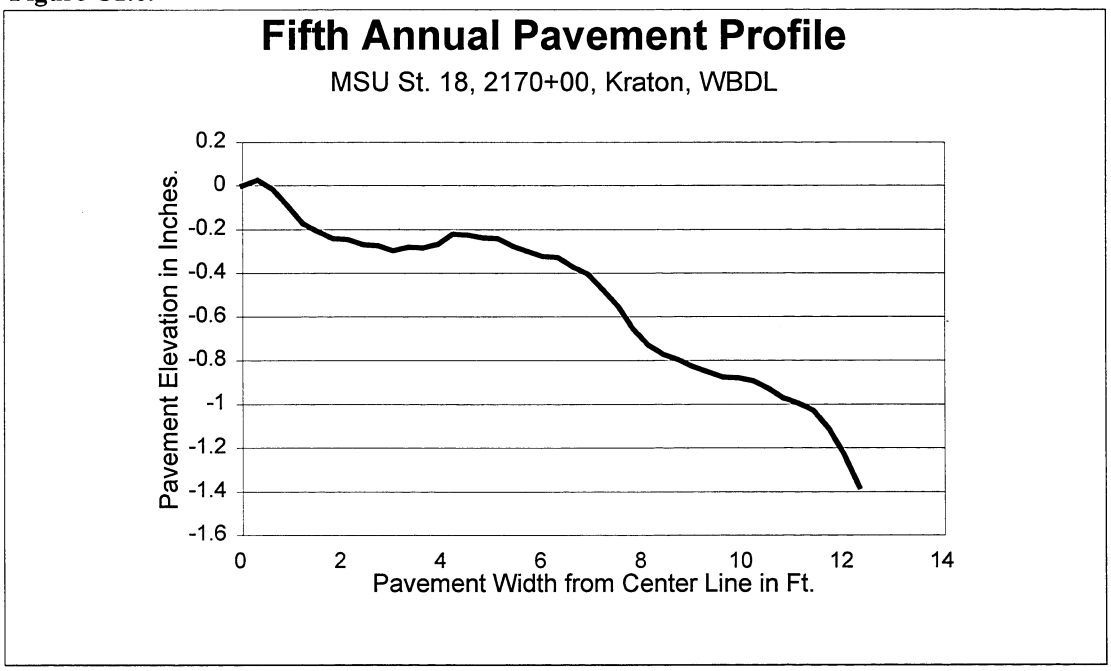


**Figure C1.7.**

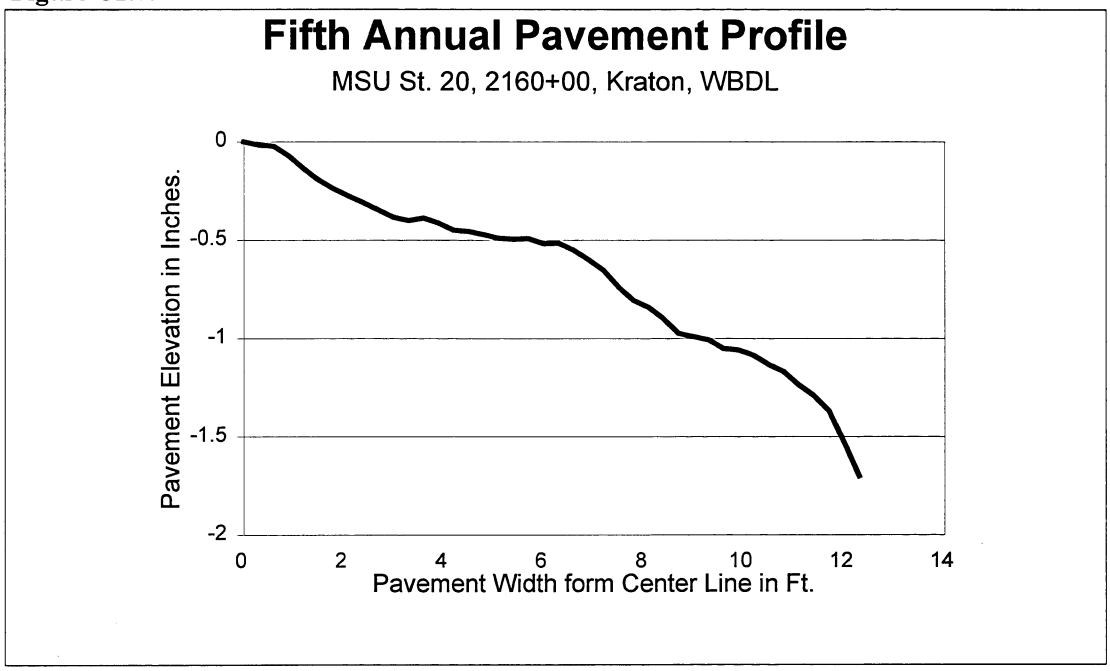



**Figure C1.8.**

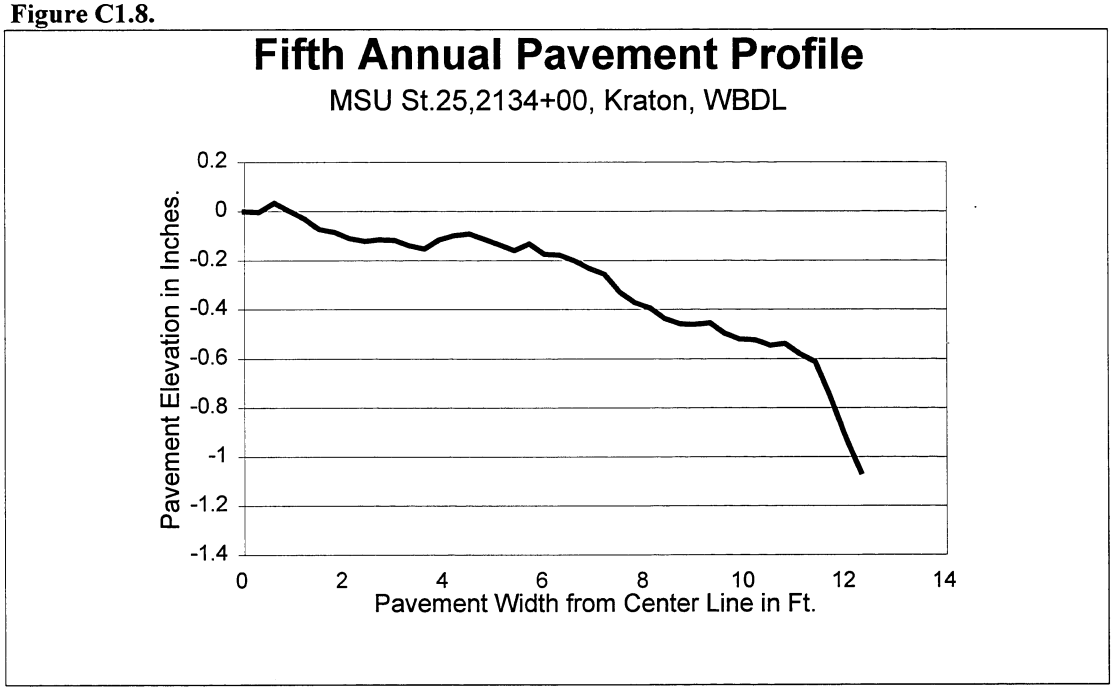


**Figure C2.1.**

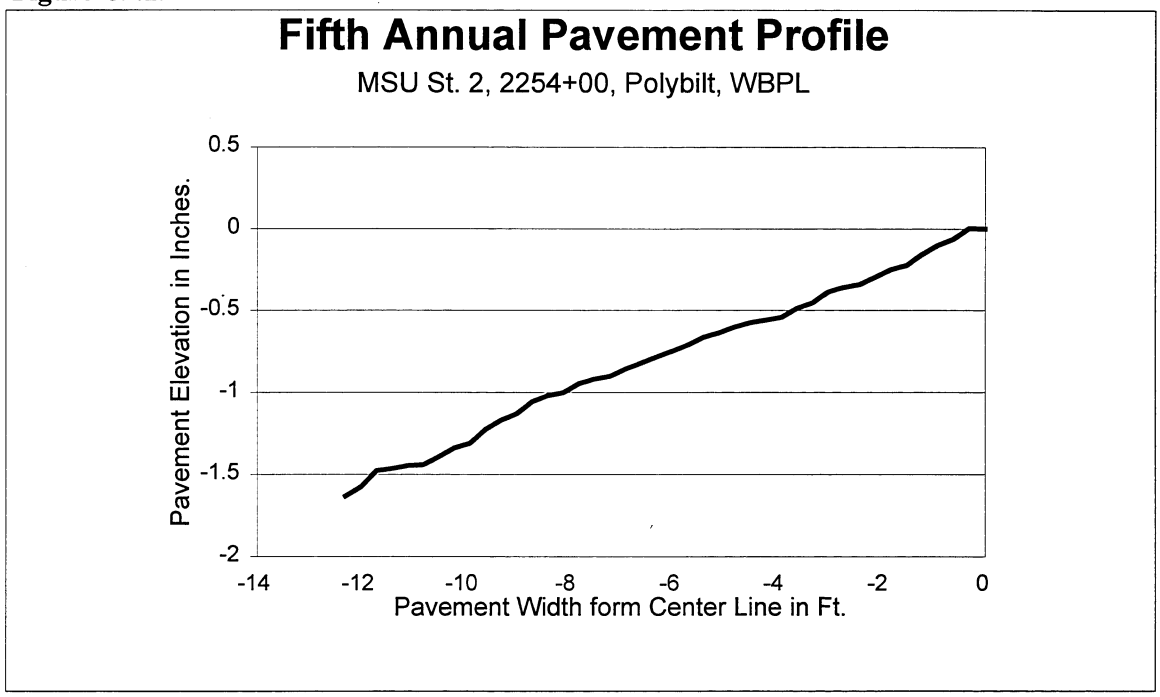



**Figure C2.2.**

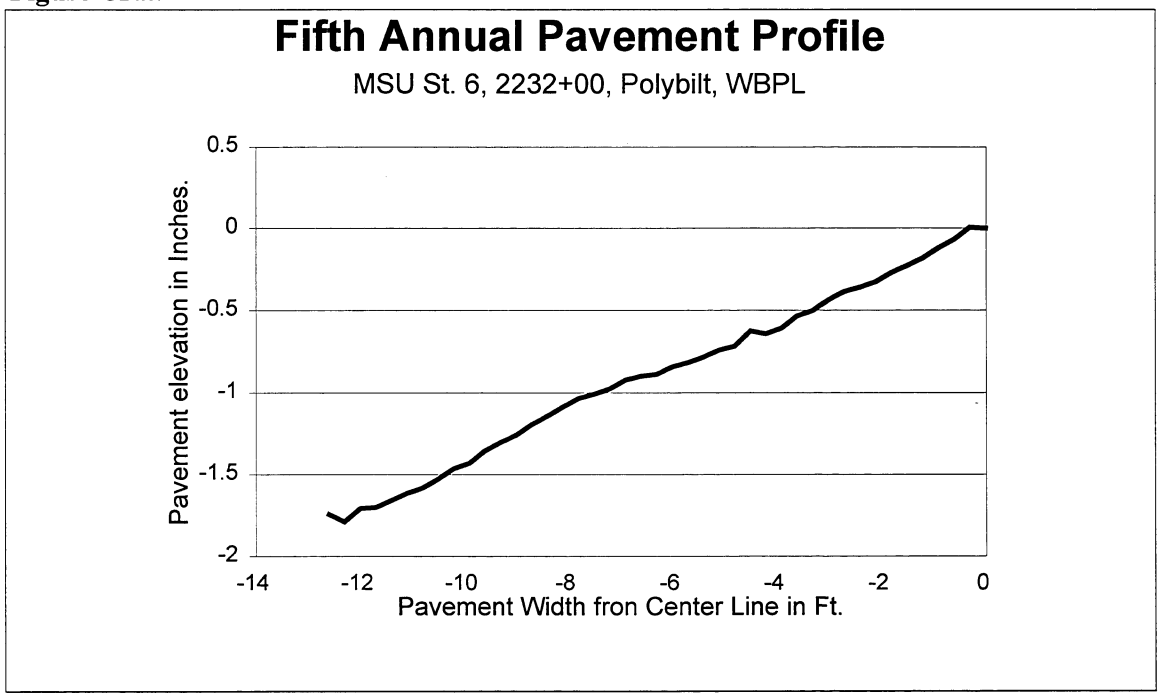


**Figure C2.3.**

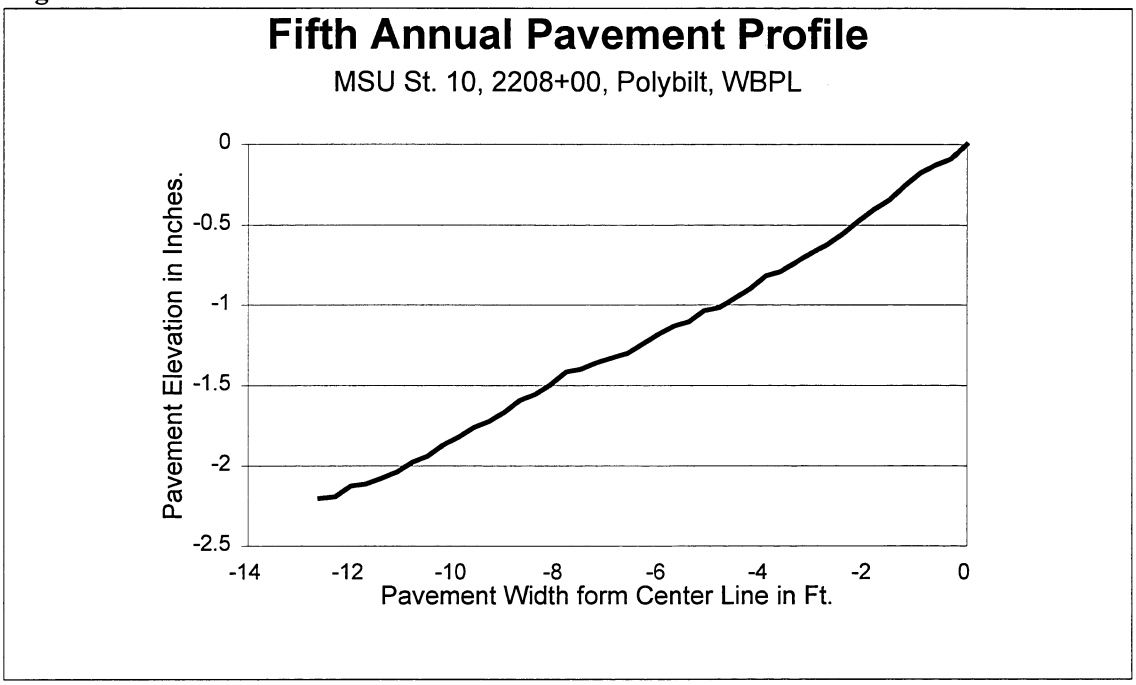



**Figure C2.4.**

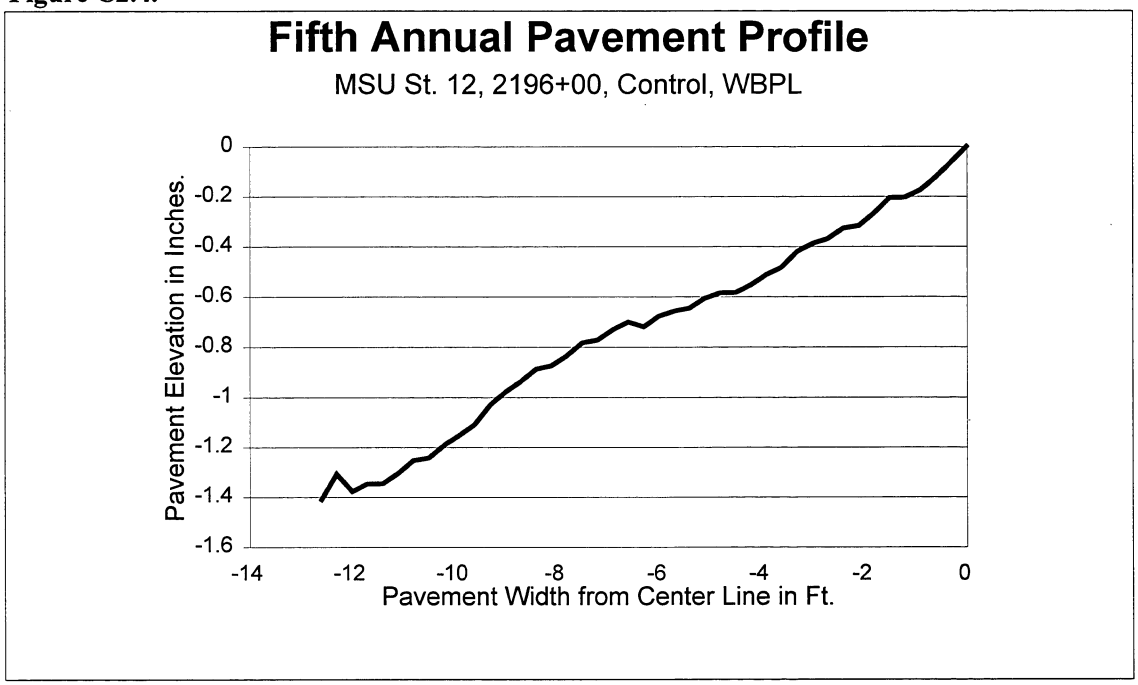


**Figure C2.5.**

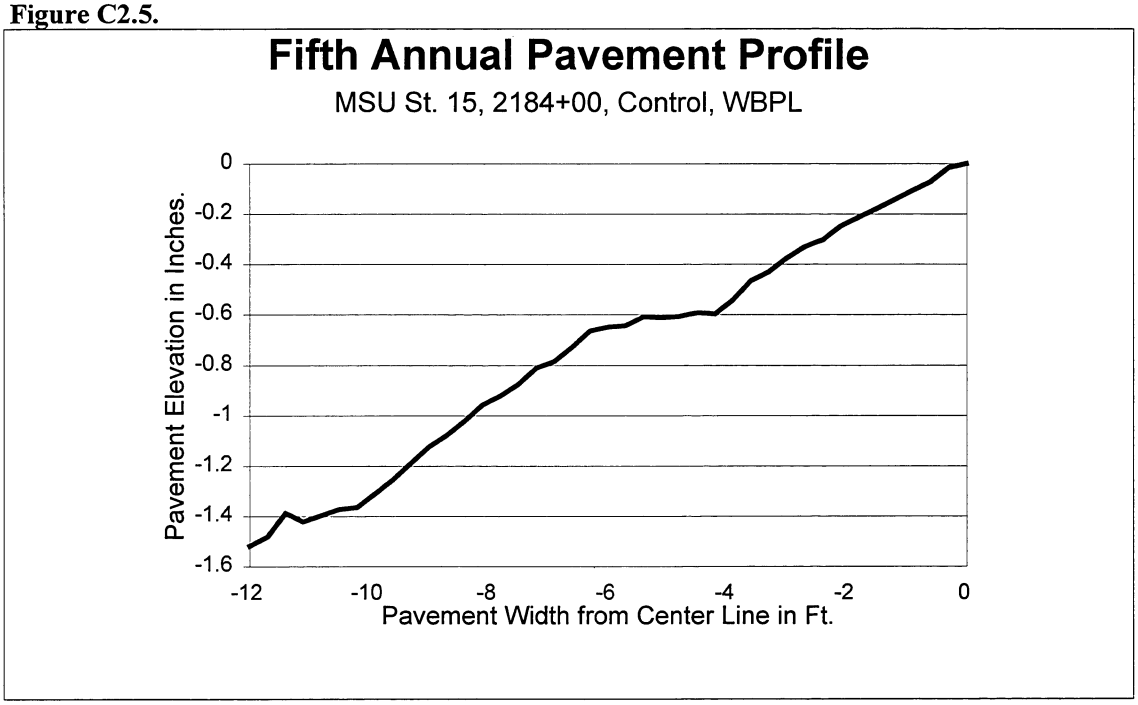



**Figure C2.6.**

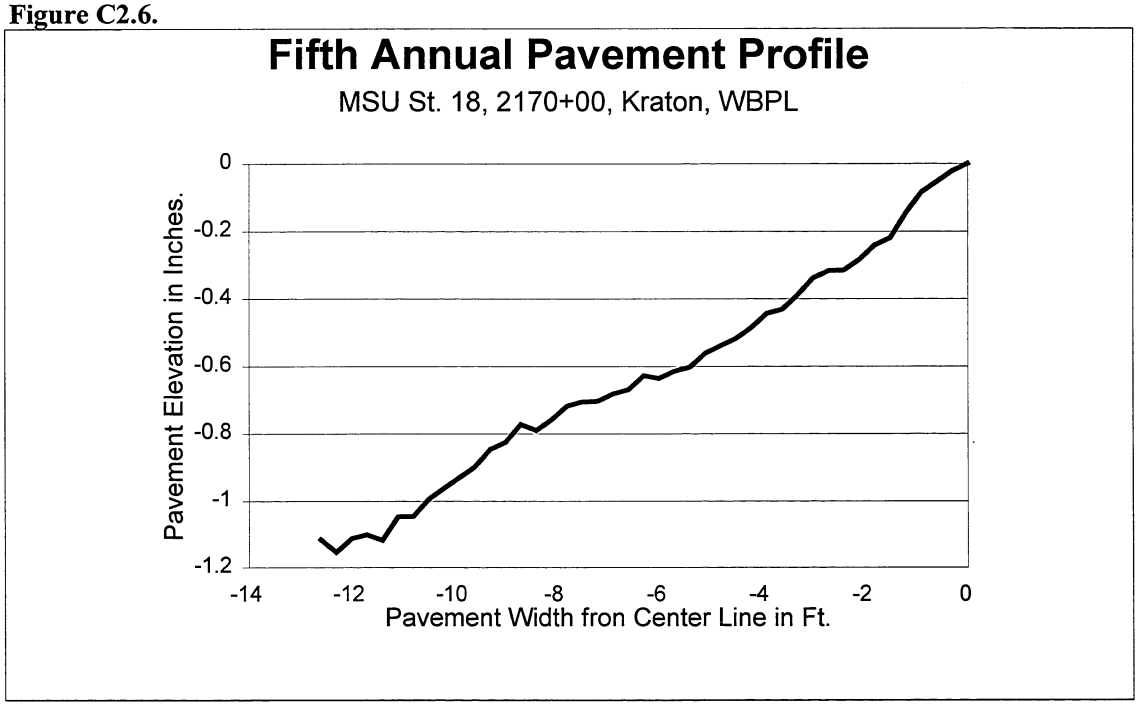


**Figure C2.7.**

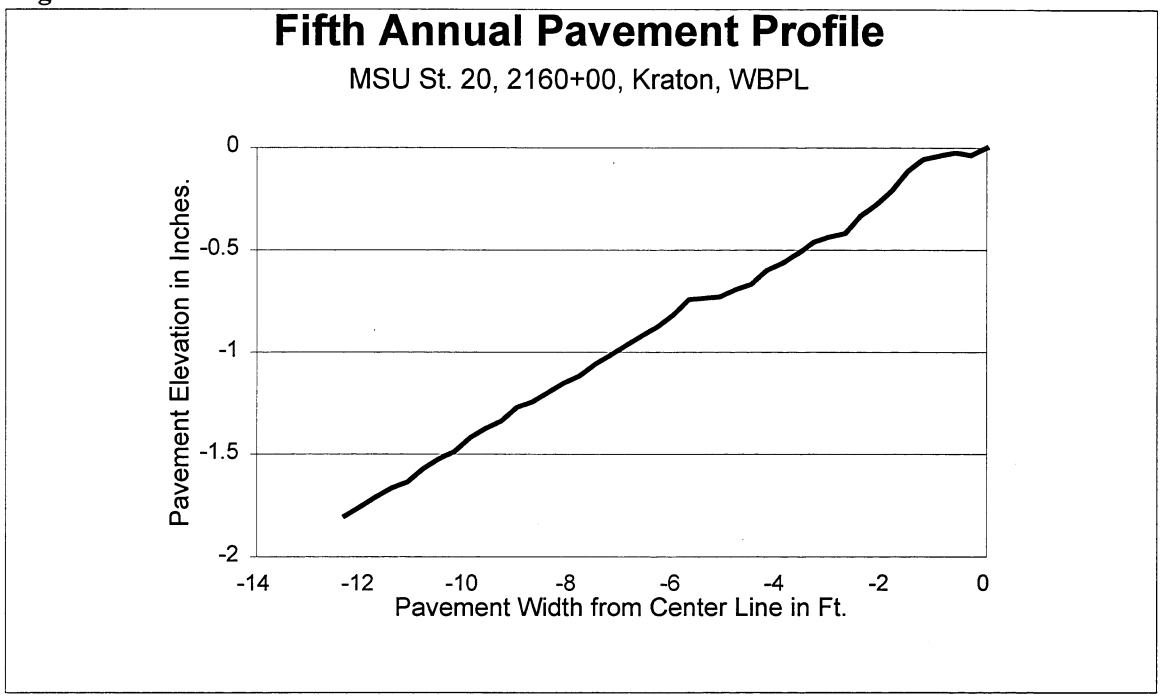



**Figure C2.8.**

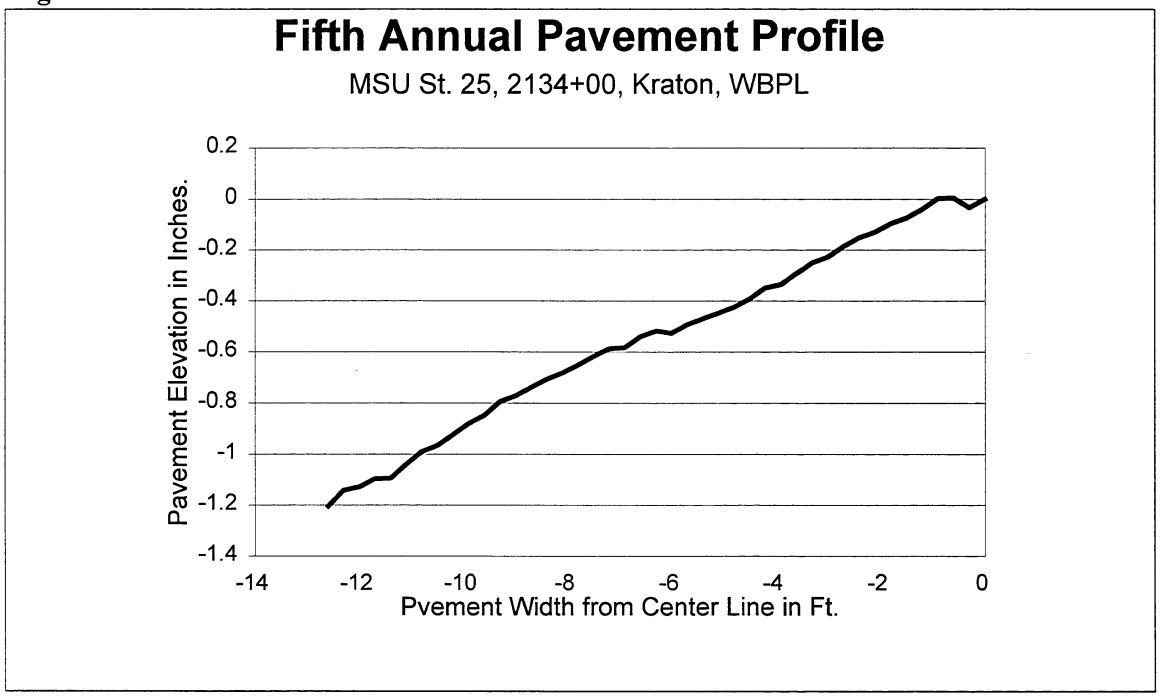


**Figure C3.1.**

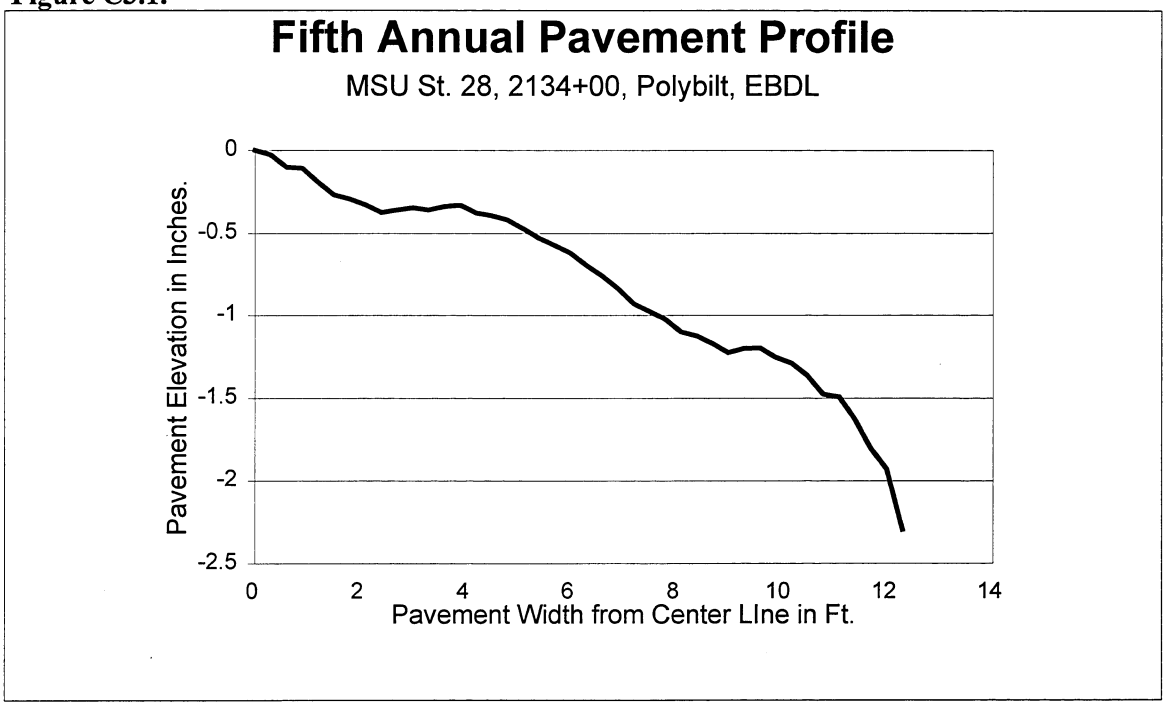



**Figure C3.2.**

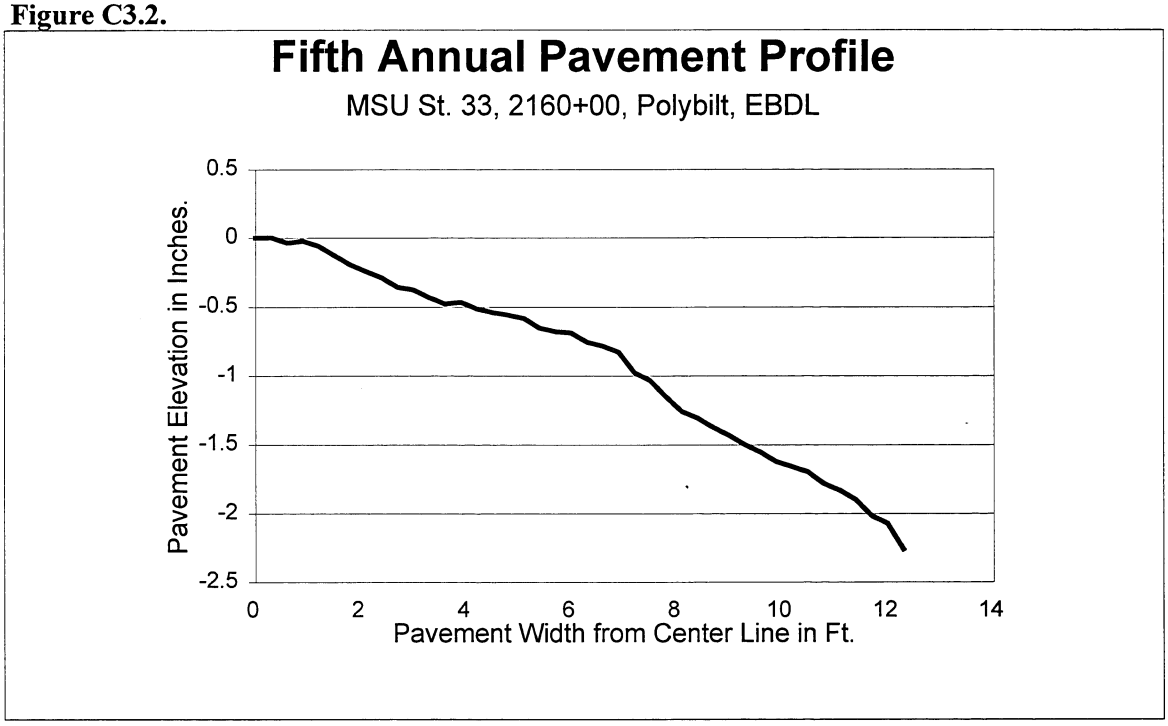


**Figure C3.3.**

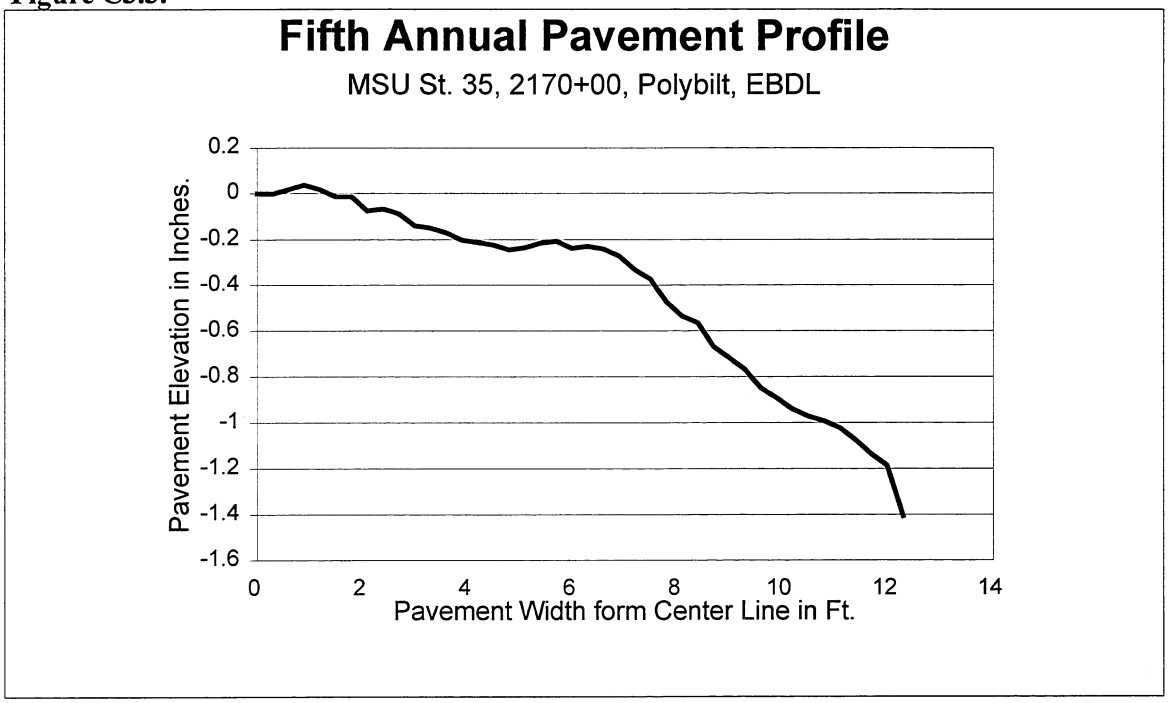



**Figure C3.4.**

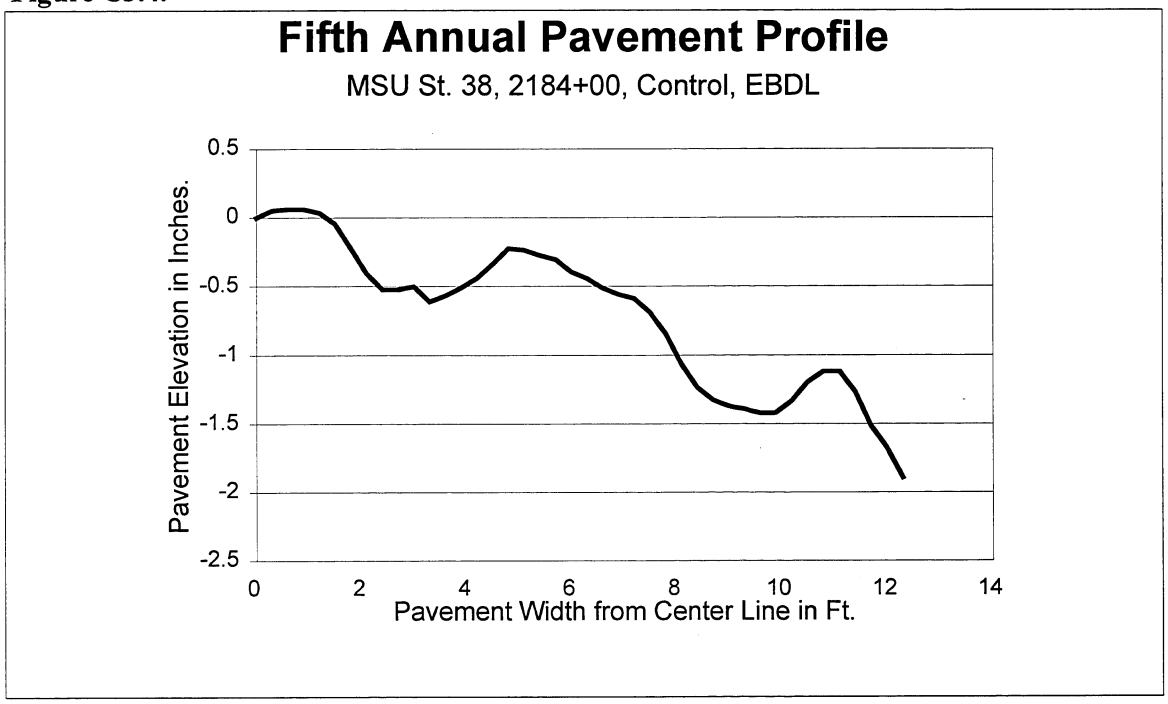


**Figure C3.5.**

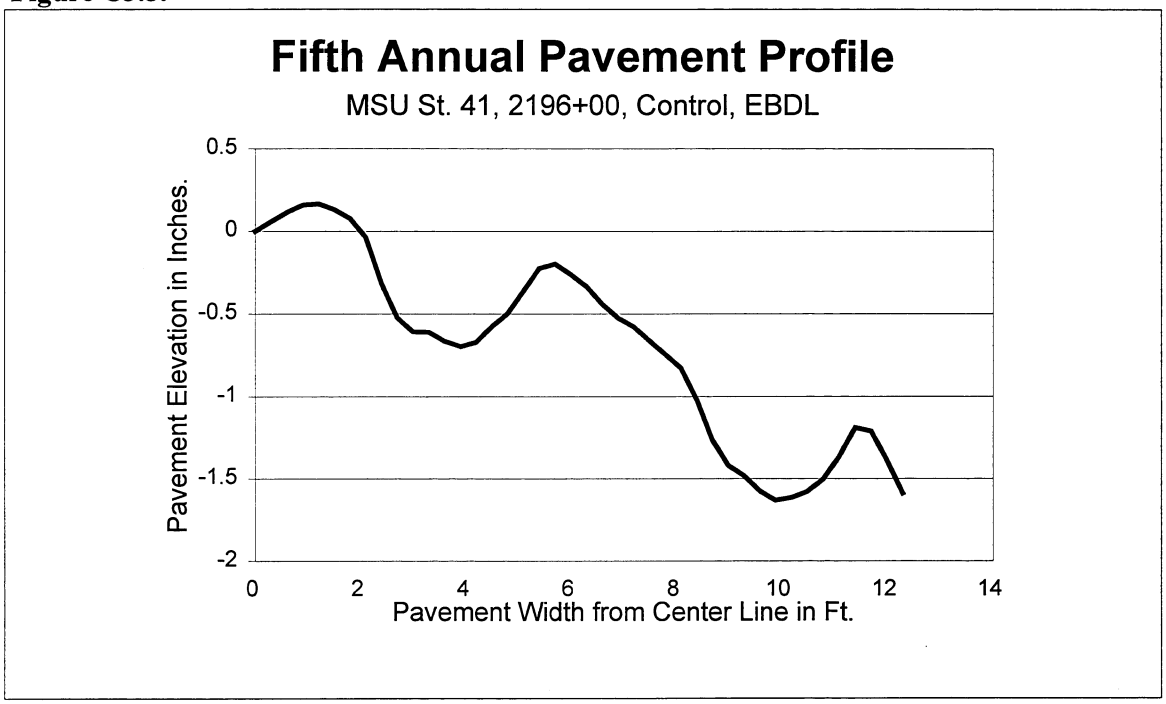



**Figure C3.6.**

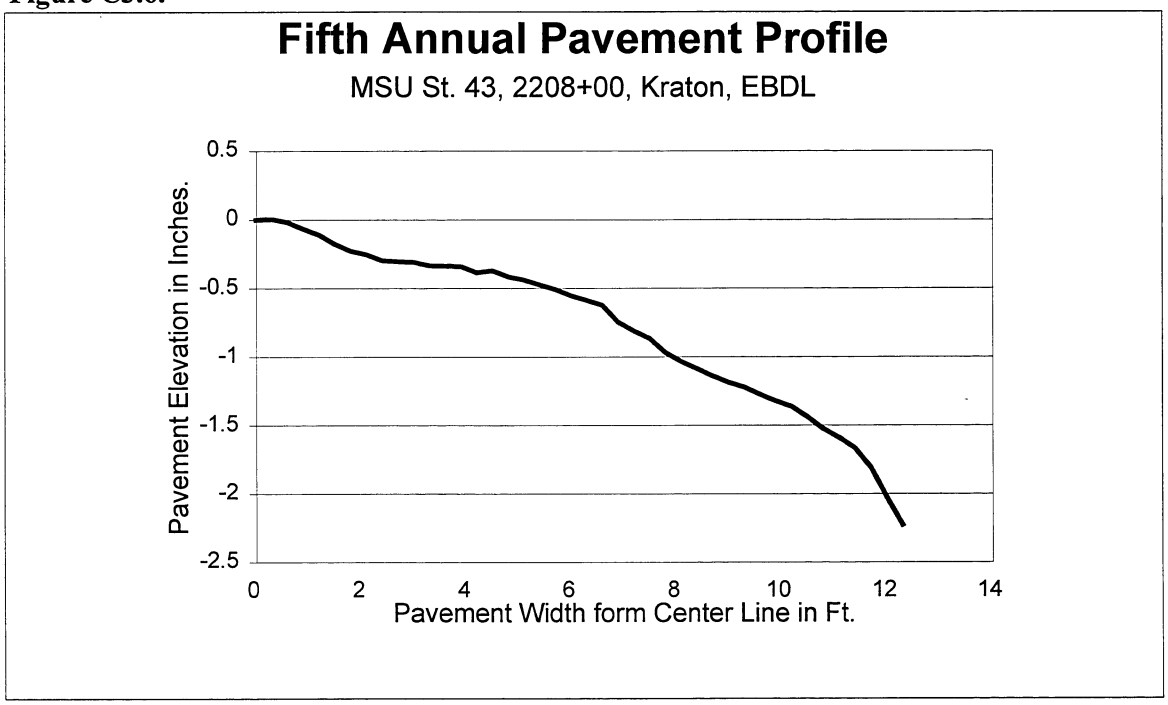


**Figure C3.7.**

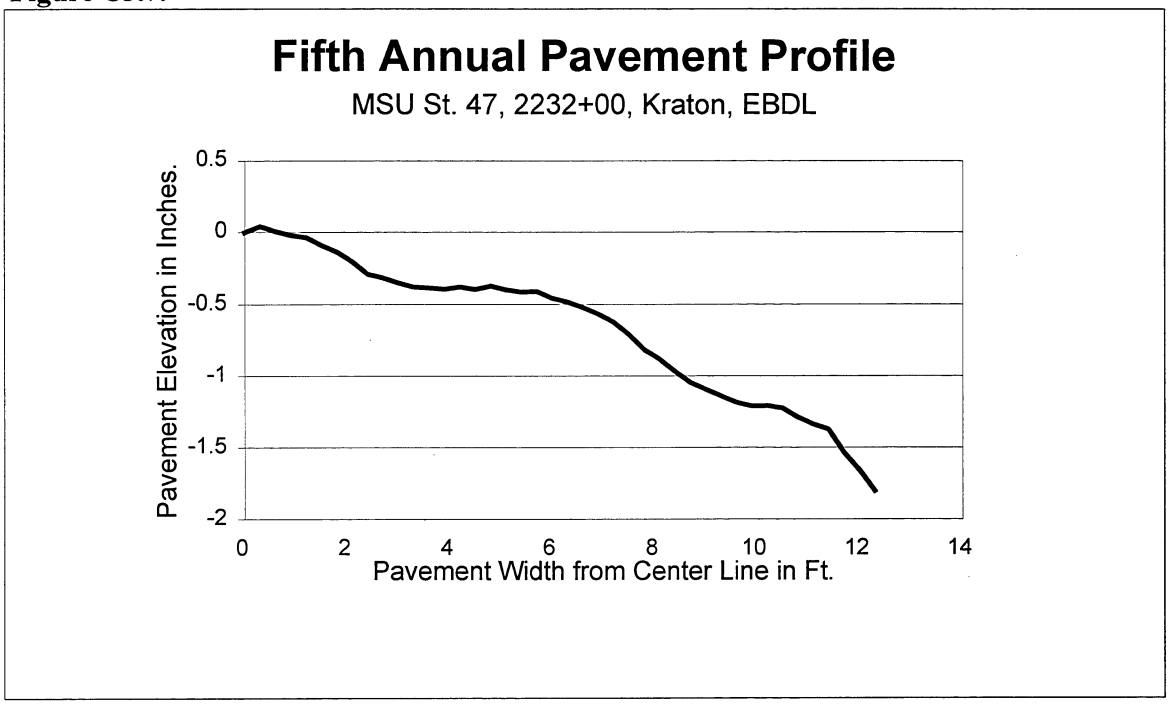



**Figure C3.8.**

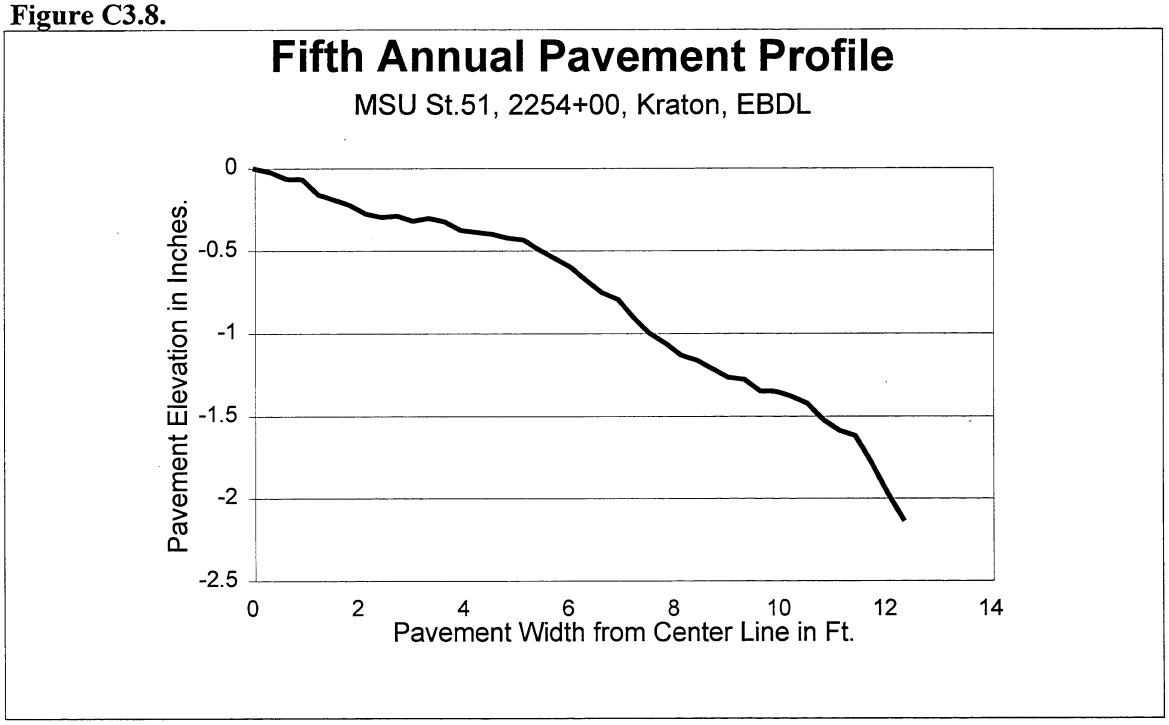


**Figure C4.1.**

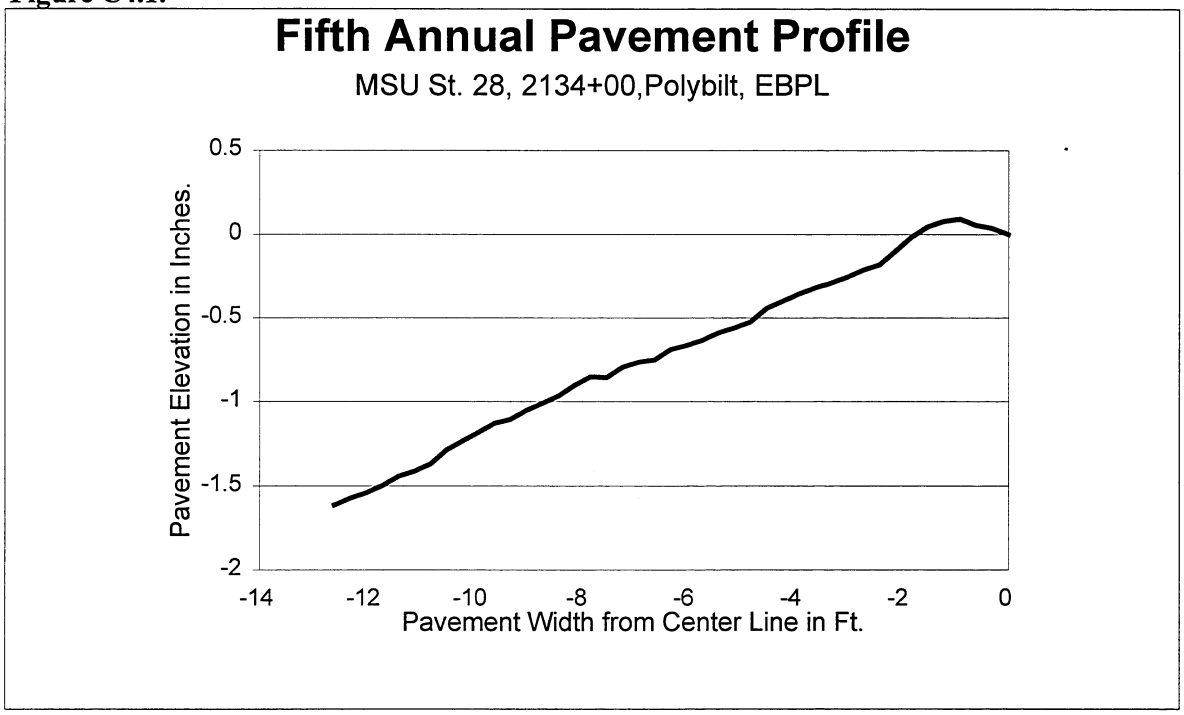



**Figure C4.2.**

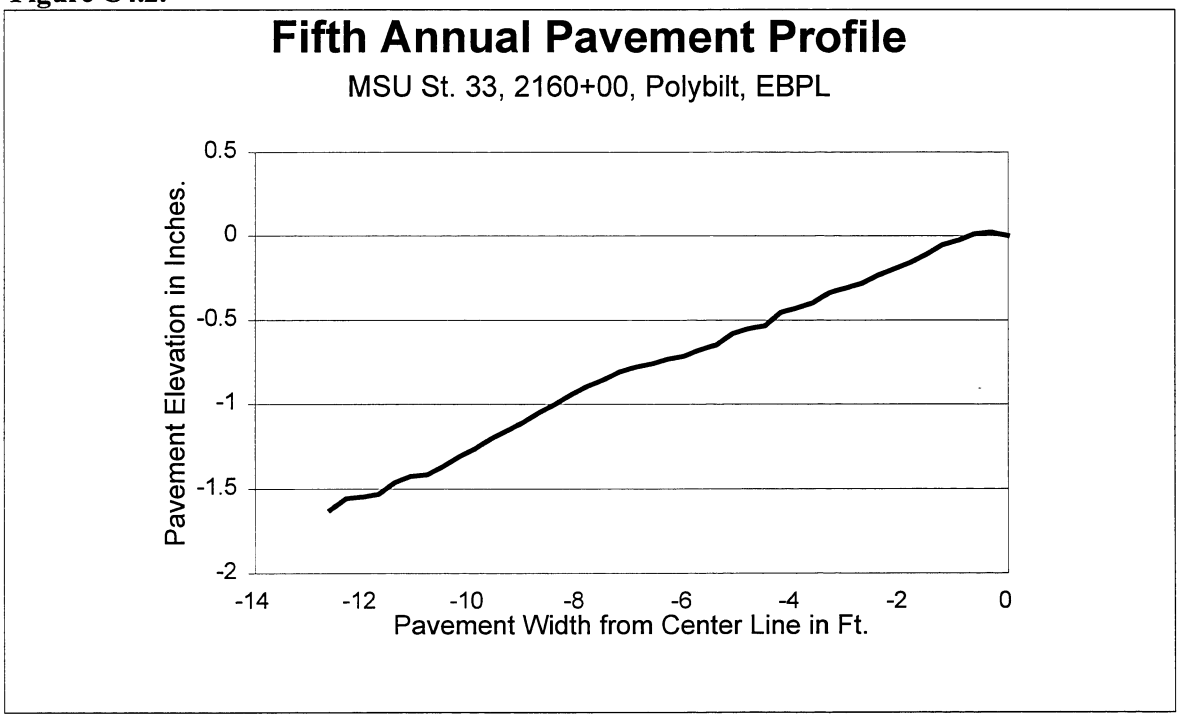


**Figure C4.3.**

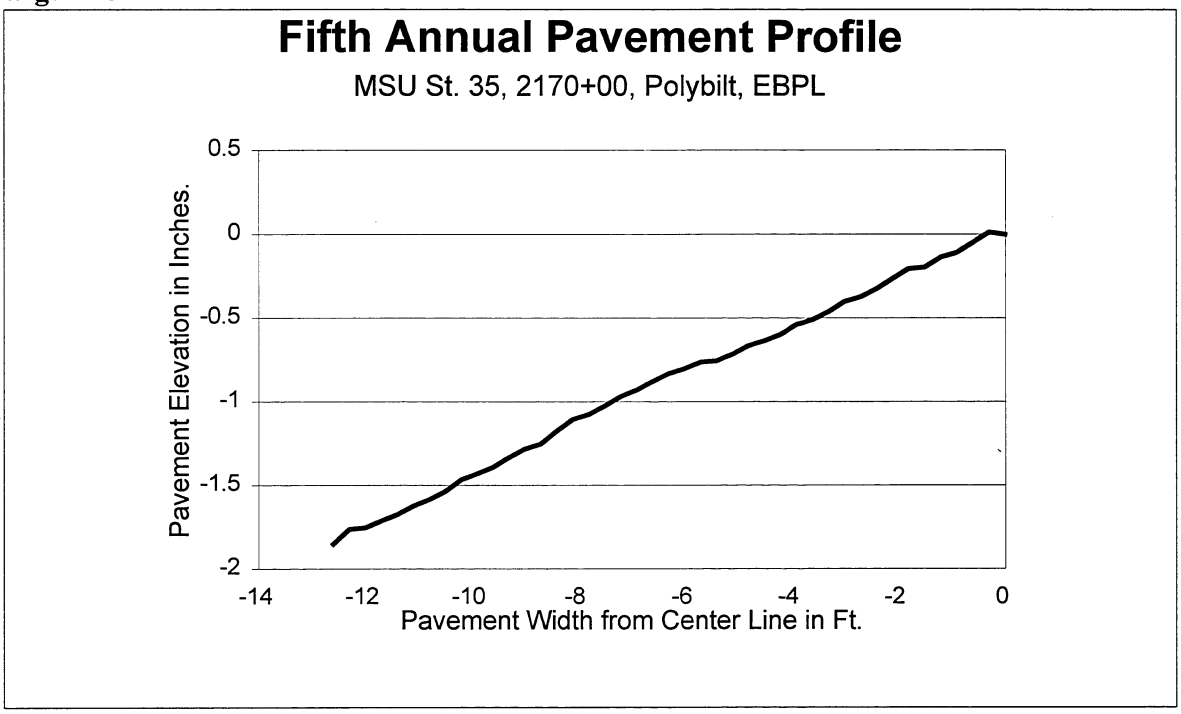



**Figure C4.4.**

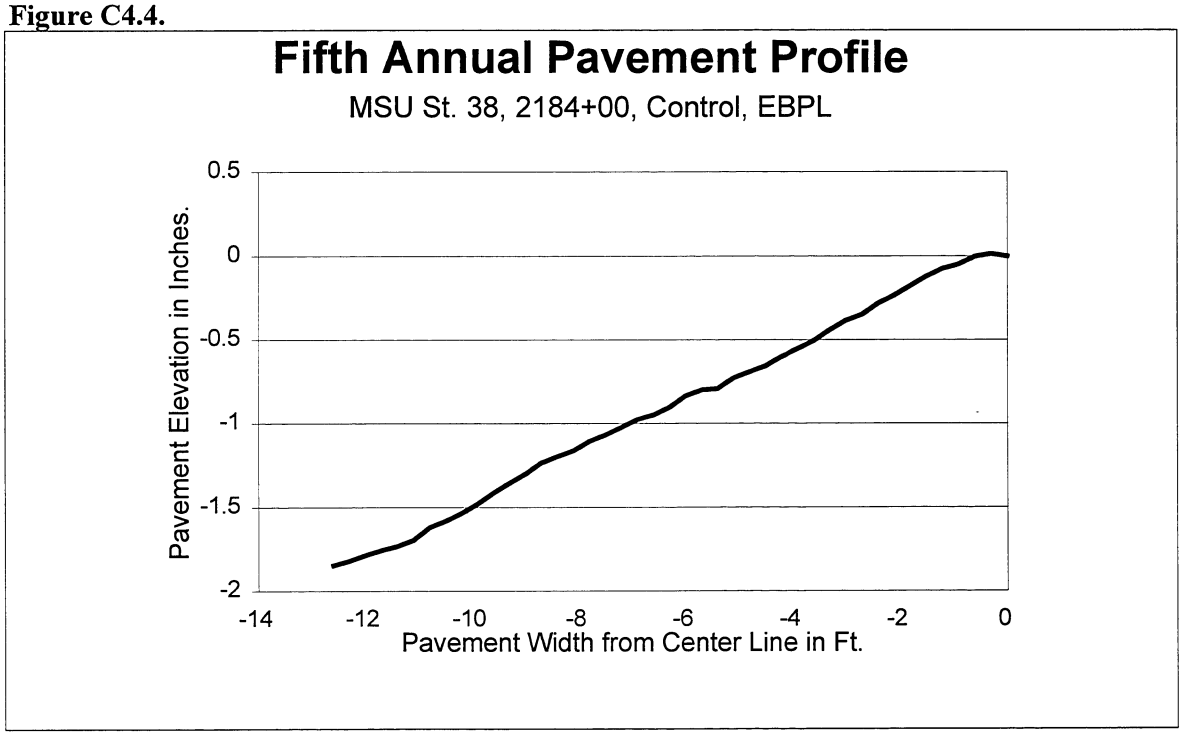


**Figure C4.5.**

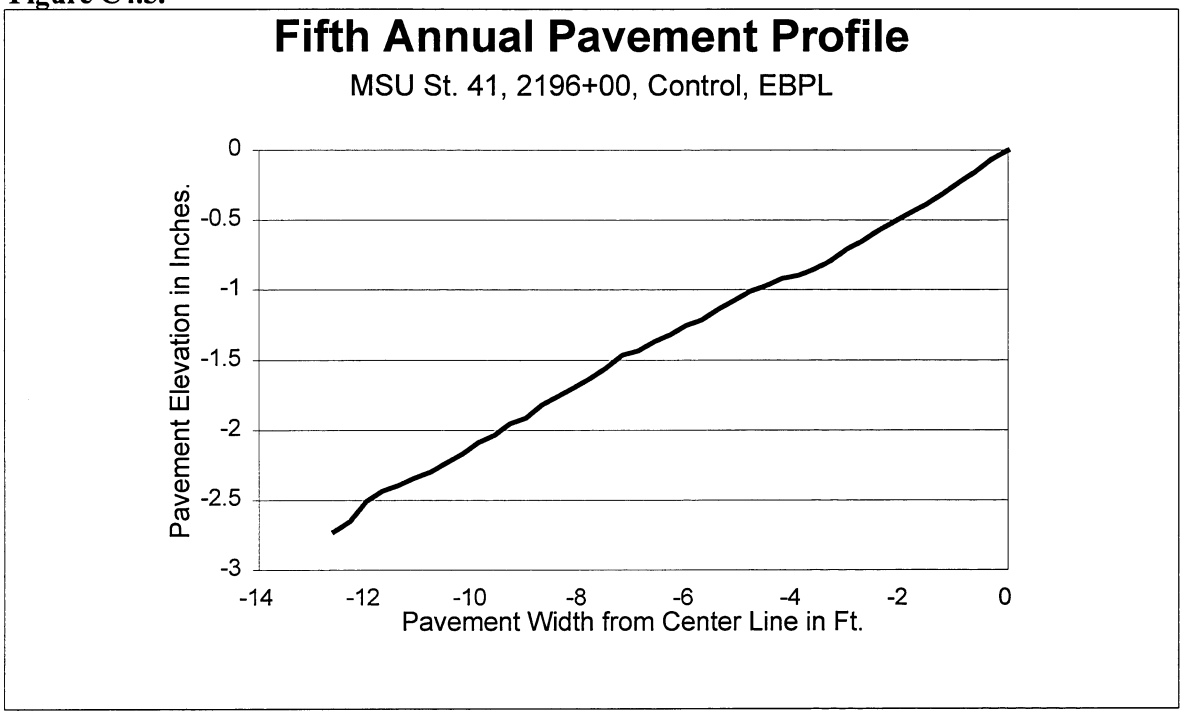
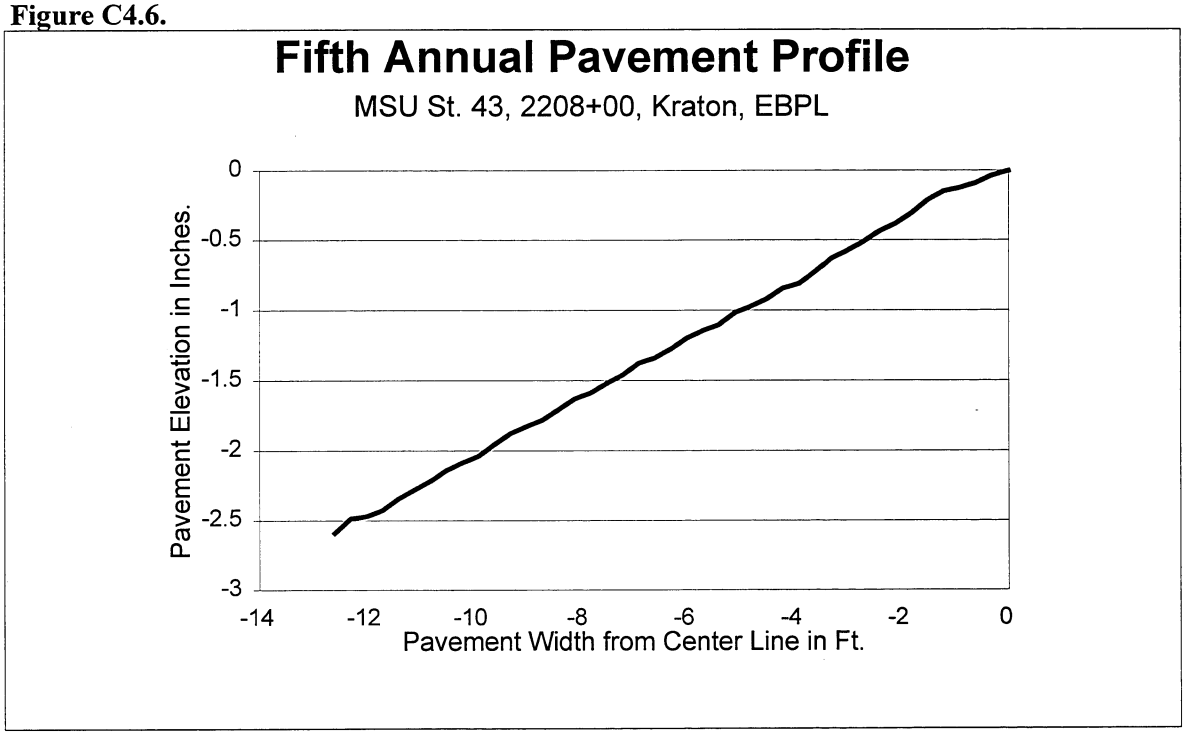



**Figure C4.6.**



# APPENDIX D

# TABLES

Table 42.1: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane

2260+00, MSU St. 1

| Point | Width Feet | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|---|
| 1 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 0.3 | 3.6 | 0.07 | -0.03 | 0.04 |
| 3 | 0.6 | 7.2 | 0.17 | -0.05 | 0.12 |
| 4 | 0.9 | 10.8 | 0.23 | -0.08 | 0.15 |
| 5 | 1.2 | 14.4 | 0.23 | -0.11 | 0.12 |
| 6 | 1.5 | 18.0 | 0.20 | -0.14 | 0.06 |
| 7 | 1.8 | 21.6 | 0.15 | -0.16 | -0.01 |
| 8 | 2.1 | 25.2 | 0.06 | -0.19 | -0.13 |
| 9 | 2.4 | 28.8 | 0.03 | -0.22 | -0.19 |
| 10 | 2.7 | 32.4 | 0.06 | -0.25 | -0.17 |
| 11 | 3.0 | 36.0 | 0.08 | -0.27 | -0.16 |
| 12 | 3.3 | 39.6 | 0.11 | -0.30 | -0.17 |
| 13 | 3.6 | 43.2 | 0.13 | -0.33 | -0.17 |
| 14 | 3.9 | 46.8 | 0.16 | -0.35 | -0.16 |
| 15 | 4.2 | 50.4 | 0.19 | -0.38 | -0.15 |
| 16 | 4.5 | 54.0 | 0.23 | -0.41 | -0.14 |
| 17 | 4.8 | 57.6 | 0.27 | -0.44 | -0.16 |
| 18 | 5.1 | 61.2 | 0.28 | -0.46 | -0.13 |
| 19 | 5.4 | 64.8 | 0.33 | -0.49 | -0.14 |
| 20 | 5.7 | 68.4 | 0.35 | -0.52 | -0.16 |
| 21 | 6.0 | 72.0 | 0.36 | -0.55 | -0.16 |
| 22 | 6.3 | 75.6 | 0.39 | -0.57 | -0.17 |
| 23 | 6.6 | 79.2 | 0.40 | -0.60 | -0.20 |
| 24 | 6.9 | 82.8 | 0.40 | -0.63 | -0.23 |
| 25 | 7.2 | 86.4 | 0.40 | -0.65 | -0.26 |
| 26 | 7.5 | 90.0 | 0.39 | -0.68 | -0.31 |
| 27 | 7.8 | 93.6 | 0.37 | -0.71 | -0.39 |
| 28 | 8.1 | 97.2 | 0.32 | -0.74 | -0.51 |
| 29 | 8.4 | 100.8 | 0.23 | -0.76 | -0.57 |
| 30 | 8.7 | 104.4 | 0.19 | -0.79 | -0.60 |
| 31 | 9.0 | 108.0 | 0.19 | -0.82 | -0.61 |
| 32 | 9.3 | 111.6 | 0.21 | -0.85 | -0.63 |
| 33 | 9.6 | 115.2 | 0.22 | -0.87 | -0.62 |
| 34 | 9.9 | 118.8 | 0.25 | -0.90 | -0.61 |
| 35 | 10.2 | 122.4 | 0.29 | -0.93 | -0.64 |
| 36 | 10.5 | 126.0 | 0.30 | -0.95 | -0.65 |
| 37 | 10.8 | 129.6 | 0.34 | -0.98 | -0.64 |
| 38 | 11.1 | 133.2 | 0.33 | -1.01 | -0.68 |
| 39 | 11.4 | 136.8 | 0.32 | -1.04 | -0.72 |
| 40 | 11.7 | 140.4 | 0.32 | -1.06 | -0.74 |
| 41 | 12.0 | 144.0 | 0.30 | -1.09 | -0.79 |
| 42 | 12.3 | 147.6 | 0.22 | -1.12 | -0.90 |

2254+00, MSU St. 2

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.05 | -0.04 | 0.01 |
| 3 | 7.2 | 0.08 | -0.07 | 0.01 |
| 4 | 10.8 | 0.09 | -0.11 | -0.02 |
| 5 | 14.4 | 0.07 | -0.14 | -0.07 |
| 6 | 18.0 | 0.02 | -0.18 | -0.16 |
| 7 | 21.6 | -0.02 | -0.21 | -0.23 |
| 8 | 25.2 | -0.04 | -0.25 | -0.29 |
| 9 | 28.8 | -0.04 | -0.28 | -0.32 |
| 10 | 32.4 | -0.01 | -0.32 | -0.33 |
| 11 | 36.0 | -0.01 | -0.35 | -0.36 |
| 12 | 39.6 | 0.00 | -0.39 | -0.39 |
| 13 | 43.2 | 0.02 | -0.43 | -0.41 |
| 14 | 46.8 | 0.05 | -0.46 | -0.41 |
| 15 | 50.4 | 0.08 | -0.50 | -0.42 |
| 16 | 54.0 | 0.10 | -0.53 | -0.43 |
| 17 | 57.6 | 0.14 | -0.57 | -0.43 |
| 18 | 61.2 | 0.20 | -0.60 | -0.40 |
| 19 | 64.8 | 0.20 | -0.64 | -0.44 |
| 20 | 68.4 | 0.22 | -0.67 | -0.45 |
| 21 | 72.0 | 0.23 | -0.71 | -0.48 |
| 22 | 75.6 | 0.24 | -0.74 | -0.50 |
| 23 | 79.2 | 0.26 | -0.78 | -0.52 |
| 24 | 82.8 | 0.29 | -0.82 | -0.53 |
| 25 | 86.4 | 0.31 | -0.85 | -0.54 |
| 26 | 90.0 | 0.21 | -0.89 | -0.68 |
| 27 | 93.6 | 0.16 | -0.92 | -0.76 |
| 28 | 97.2 | 0.15 | -0.96 | -0.81 |
| 29 | 100.8 | 0.11 | -0.99 | -0.88 |
| 30 | 104.4 | 0.10 | -1.03 | -0.93 |
| 31 | 108.0 | 0.07 | -1.06 | -0.99 |
| 32 | 111.6 | 0.10 | -1.10 | -1.00 |
| 33 | 115.2 | 0.10 | -1.13 | -1.03 |
| 34 | 118.8 | 0.08 | -1.17 | -1.09 |
| 35 | 122.4 | 0.13 | -1.21 | -1.08 |
| 36 | 126.0 | 0.21 | -1.24 | -1.03 |
| 37 | 129.6 | 0.22 | -1.28 | -1.06 |
| 38 | 133.2 | 0.21 | -1.31 | -1.10 |
| 39 | 136.8 | 0.20 | -1.35 | -1.15 |
| 40 | 140.4 | 0.19 | -1.38 | -1.19 |
| 41 | 144.0 | 0.14 | -1.42 | -1.28 |
| 42 | 147.6 | 0.12 | -1.45 | -1.33 |
| 43 | 151.2 | 0.00 | -1.49 | -1.49 |

Table 42.2: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2250+00, MSU St. 3

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.04 | 0.06 |
| 3 | 7.2 | 0.13 | -0.08 | 0.05 |
| 4 | 10.8 | 0.20 | -0.12 | 0.08 |
| 5 | 14.4 | 0.19 | -0.16 | 0.03 |
| 6 | 18.0 | 0.12 | -0.20 | -0.08 |
| 7 | 21.6 | 0.07 | -0.25 | -0.18 |
| 8 | 25.2 | 0.05 | -0.29 | -0.24 |
| 9 | 28.8 | 0.02 | -0.33 | -0.31 |
| 10 | 32.4 | 0.08 | -0.37 | -0.29 |
| 11 | 36.0 | 0.11 | -0.41 | -0.30 |
| 12 | 39.6 | 0.13 | -0.45 | -0.32 |
| 13 | 43.2 | 0.15 | -0.49 | -0.34 |
| 14 | 46.8 | 0.18 | -0.53 | -0.35 |
| 15 | 50.4 | 0.19 | -0.57 | -0.38 |
| 16 | 54.0 | 0.25 | -0.61 | -0.36 |
| 17 | 57.6 | 0.28 | -0.65 | -0.37 |
| 18 | 61.2 | 0.33 | -0.70 | -0.37 |
| 19 | 64.8 | 0.34 | -0.74 | -0.40 |
| 20 | 68.4 | 0.35 | -0.78 | -0.43 |
| 21 | 72.0 | 0.35 | -0.82 | -0.47 |
| 22 | 75.6 | 0.35 | -0.86 | -0.51 |
| 23 | 79.2 | 0.38 | -0.90 | -0.52 |
| 24 | 82.8 | 0.37 | -0.94 | -0.57 |
| 25 | 86.4 | 0.34 | -0.98 | -0.64 |
| 26 | 90.0 | 0.34 | -1.02 | -0.68 |
| 27 | 93.6 | 0.30 | -1.06 | -0.76 |
| 28 | 97.2 | 0.20 | -1.10 | -0.90 |
| 29 | 100.8 | 0.19 | -1.15 | -0.96 |
| 30 | 104.4 | 0.19 | -1.19 | -1.00 |
| 31 | 108.0 | 0.18 | -1.23 | -1.05 |
| 32 | 111.6 | 0.18 | -1.27 | -1.09 |
| 33 | 115.2 | 0.19 | -1.31 | -1.12 |
| 34 | 118.8 | 0.20 | -1.35 | -1.15 |
| 35 | 122.4 | 0.21 | -1.39 | -1.18 |
| 36 | 126.0 | 0.22 | -1.43 | -1.21 |
| 37 | 129.6 | 0.23 | -1.47 | -1.24 |
| 38 | 133.2 | 0.24 | -1.51 | -1.27 |
| 39 | 136.8 | 0.23 | -1.55 | -1.32 |
| 40 | 140.4 | 0.22 | -1.60 | -1.38 |
| 41 | 144.0 | 0.22 | -1.64 | -1.42 |
| 42 | 147.6 | 0.26 | -1.68 | -1.42 |

2244+00, MSU St. 4

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.09 | -0.05 | 0.04 |
| 3 | 7.2 | 0.12 | -0.10 | 0.02 |
| 4 | 10.8 | 0.18 | -0.16 | 0.02 |
| 5 | 14.4 | 0.19 | -0.21 | -0.02 |
| 6 | 18.0 | 0.18 | -0.26 | -0.08 |
| 7 | 21.6 | 0.17 | -0.31 | -0.14 |
| 8 | 25.2 | 0.17 | -0.36 | -0.19 |
| 9 | 28.8 | 0.17 | -0.41 | -0.24 |
| 10 | 32.4 | 0.19 | -0.47 | -0.28 |
| 11 | 36.0 | 0.21 | -0.52 | -0.31 |
| 12 | 39.6 | 0.20 | -0.57 | -0.37 |
| 13 | 43.2 | 0.22 | -0.62 | -0.40 |
| 14 | 46.8 | 0.27 | -0.67 | -0.40 |
| 15 | 50.4 | 0.31 | -0.73 | -0.42 |
| 16 | 54.0 | 0.35 | -0.78 | -0.43 |
| 17 | 57.6 | 0.40 | -0.83 | -0.43 |
| 18 | 61.2 | 0.44 | -0.88 | -0.44 |
| 19 | 64.8 | 0.48 | -0.93 | -0.45 |
| 20 | 68.4 | 0.50 | -0.98 | -0.48 |
| 21 | 72.0 | 0.52 | -1.04 | -0.52 |
| 22 | 75.6 | 0.55 | -1.09 | -0.54 |
| 23 | 79.2 | 0.57 | -1.14 | -0.57 |
| 24 | 82.8 | 0.58 | -1.19 | -0.61 |
| 25 | 86.4 | 0.58 | -1.24 | -0.66 |
| 26 | 90.0 | 0.55 | -1.30 | -0.75 |
| 27 | 93.6 | 0.51 | -1.35 | -0.84 |
| 28 | 97.2 | 0.43 | -1.40 | -0.97 |
| 29 | 100.8 | 0.39 | -1.45 | -1.06 |
| 30 | 104.4 | 0.38 | -1.50 | -1.12 |
| 31 | 108.0 | 0.41 | -1.55 | -1.14 |
| 32 | 111.6 | 0.46 | -1.61 | -1.15 |
| 33 | 115.2 | 0.48 | -1.66 | -1.18 |
| 34 | 118.8 | 0.47 | -1.71 | -1.24 |
| 35 | 122.4 | 0.50 | -1.76 | -1.26 |
| 36 | 126.0 | 0.51 | -1.81 | -1.30 |
| 37 | 129.6 | 0.54 | -1.87 | -1.33 |
| 38 | 133.2 | 0.56 | -1.92 | -1.36 |
| 39 | 136.8 | 0.55 | -1.97 | -1.42 |
| 40 | 140.4 | 0.53 | -2.02 | -1.49 |
| 41 | 144.0 | 0.56 | -2.07 | -1.51 |
| 42 | 147.6 | 0.45 | -2.12 | -1.67 |

Table 42.3: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2238+00, MSU St. 5

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.15 | -0.04 | 0.11 |
| 3 | 7.2 | 0.17 | -0.08 | 0.09 |
| 4 | 10.8 | 0.20 | -0.12 | 0.08 |
| 5 | 14.4 | 0.19 | -0.16 | 0.03 |
| 6 | 18.0 | 0.14 | -0.20 | -0.06 |
| 7 | 21.6 | 0.12 | -0.25 | -0.13 |
| 8 | 25.2 | 0.10 | -0.29 | -0.19 |
| 9 | 28.8 | 0.10 | -0.33 | -0.23 |
| 10 | 32.4 | 0.10 | -0.37 | -0.27 |
| 11 | 36.0 | 0.14 | -0.41 | -0.27 |
| 12 | 39.6 | 0.15 | -0.45 | -0.30 |
| 13 | 43.2 | 0.20 | -0.49 | -0.29 |
| 14 | 46.8 | 0.26 | -0.53 | -0.27 |
| 15 | 50.4 | 0.30 | -0.57 | -0.27 |
| 16 | 54.0 | 0.34 | -0.61 | -0.27 |
| 17 | 57.6 | 0.35 | -0.65 | -0.30 |
| 18 | 61.2 | 0.37 | -0.70 | -0.33 |
| 19 | 64.8 | 0.40 | -0.74 | -0.34 |
| 20 | 68.4 | 0.40 | -0.78 | -0.38 |
| 21 | 72.0 | 0.42 | -0.82 | -0.40 |
| 22 | 75.6 | 0.44 | -0.86 | -0.42 |
| 23 | 79.2 | 0.45 | -0.90 | -0.45 |
| 24 | 82.8 | 0.43 | -0.94 | -0.51 |
| 25 | 86.4 | 0.43 | -0.98 | -0.55 |
| 26 | 90.0 | 0.41 | -1.02 | -0.61 |
| 27 | 93.6 | 0.36 | -1.06 | -0.70 |
| 28 | 97.2 | 0.32 | -1.10 | -0.78 |
| 29 | 100.8 | 0.33 | -1.15 | -0.82 |
| 30 | 104.4 | 0.31 | -1.19 | -0.88 |
| 31 | 108.0 | 0.30 | -1.23 | -0.93 |
| 32 | 111.6 | 0.34 | -1.27 | -0.93 |
| 33 | 115.2 | 0.37 | -1.31 | -0.94 |
| 34 | 118.8 | 0.40 | -1.35 | -0.95 |
| 35 | 122.4 | 0.43 | -1.39 | -0.96 |
| 36 | 126.0 | 0.45 | -1.43 | -0.98 |
| 37 | 129.6 | 0.46 | -1.47 | -1.01 |
| 38 | 133.2 | 0.47 | -1.51 | -1.04 |
| 39 | 136.8 | 0.44 | -1.55 | -1.11 |
| 40 | 140.4 | 0.42 | -1.60 | -1.18 |
| 41 | 144.0 | 0.41 | -1.64 | -1.23 |
| 42 | 147.6 | 0.32 | -1.68 | -1.36 |
| 43 | 151.2 | 0.19 | -1.72 | -1.53 |

2232+00, MSU St. 6

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.04 | 0.06 |
| 3 | 7.2 | 0.13 | -0.09 | 0.04 |
| 4 | 10.8 | 0.17 | -0.13 | 0.04 |
| 5 | 14.4 | 0.17 | -0.17 | -0.00 |
| 6 | 18.0 | 0.15 | -0.22 | -0.07 |
| 7 | 21.6 | 0.16 | -0.26 | -0.10 |
| 8 | 25.2 | 0.14 | -0.31 | -0.17 |
| 9 | 28.8 | 0.15 | -0.35 | -0.20 |
| 10 | 32.4 | 0.17 | -0.39 | -0.22 |
| 11 | 36.0 | 0.18 | -0.44 | -0.26 |
| 12 | 39.6 | 0.20 | -0.48 | -0.28 |
| 13 | 43.2 | 0.22 | -0.52 | -0.30 |
| 14 | 46.8 | 0.27 | -0.57 | -0.30 |
| 15 | 50.4 | 0.31 | -0.61 | -0.30 |
| 16 | 54.0 | 0.35 | -0.65 | -0.30 |
| 17 | 57.6 | 0.40 | -0.70 | -0.30 |
| 18 | 61.2 | 0.43 | -0.74 | -0.31 |
| 19 | 64.8 | 0.47 | -0.79 | -0.32 |
| 20 | 68.4 | 0.49 | -0.83 | -0.34 |
| 21 | 72.0 | 0.51 | -0.87 | -0.36 |
| 22 | 75.6 | 0.52 | -0.92 | -0.40 |
| 23 | 79.2 | 0.53 | -0.96 | -0.43 |
| 24 | 82.8 | 0.54 | -1.00 | -0.46 |
| 25 | 86.4 | 0.54 | -1.05 | -0.51 |
| 26 | 90.0 | 0.52 | -1.09 | -0.57 |
| 27 | 93.6 | 0.50 | -1.13 | -0.63 |
| 28 | 97.2 | 0.47 | -1.18 | -0.71 |
| 29 | 100.8 | 0.49 | -1.22 | -0.73 |
| 30 | 104.4 | 0.48 | -1.27 | -0.79 |
| 31 | 108.0 | 0.47 | -1.31 | -0.84 |
| 32 | 111.6 | 0.49 | -1.35 | -0.86 |
| 33 | 115.2 | 0.50 | -1.40 | -0.90 |
| 34 | 118.8 | 0.51 | -1.44 | -0.93 |
| 35 | 122.4 | 0.54 | -1.48 | -0.94 |
| 36 | 126.0 | 0.56 | -1.53 | -0.97 |
| 37 | 129.6 | 0.58 | -1.57 | -0.99 |
| 38 | 133.2 | 0.60 | -1.61 | -1.01 |
| 39 | 136.8 | 0.61 | -1.66 | -1.05 |
| 40 | 140.4 | 0.62 | -1.70 | -1.08 |
| 41 | 144.0 | 0.66 | -1.75 | -1.09 |
| 42 | 147.6 | 0.56 | -1.79 | -1.23 |
| 43 | 151.2 | 0.42 | -1.83 | -1.41 |

Table 42.4: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2226+00, MSU St. 7

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.05 | -0.05 | 0.00 |
| 3 | 7.2 | 0.06 | -0.09 | -0.03 |
| 4 | 10.8 | 0.04 | -0.14 | -0.10 |
| 5 | 14.4 | 0.01 | -0.19 | -0.18 |
| 6 | 18.0 | 0.00 | -0.23 | -0.23 |
| 7 | 21.6 | 0.04 | -0.28 | -0.24 |
| 8 | 25.2 | 0.07 | -0.32 | -0.25 |
| 9 | 28.8 | 0.09 | -0.37 | -0.28 |
| 10 | 32.4 | 0.10 | -0.42 | -0.32 |
| 11 | 36.0 | 0.12 | -0.46 | -0.34 |
| 12 | 39.6 | 0.17 | -0.51 | -0.34 |
| 13 | 43.2 | 0.20 | -0.56 | -0.36 |
| 14 | 46.8 | 0.26 | -0.60 | -0.34 |
| 15 | 50.4 | 0.30 | -0.65 | -0.35 |
| 16 | 54.0 | 0.33 | -0.70 | -0.37 |
| 17 | 57.6 | 0.37 | -0.74 | -0.37 |
| 18 | 61.2 | 0.40 | -0.79 | -0.39 |
| 19 | 64.8 | 0.41 | -0.83 | -0.42 |
| 20 | 68.4 | 0.44 | -0.88 | -0.44 |
| 21 | 72.0 | 0.48 | -0.93 | -0.45 |
| 22 | 75.6 | 0.49 | -0.97 | -0.48 |
| 23 | 79.2 | 0.50 | -1.02 | -0.52 |
| 24 | 82.8 | 0.50 | -1.07 | -0.57 |
| 25 | 86.4 | 0.48 | -1.11 | -0.63 |
| 26 | 90.0 | 0.47 | -1.16 | -0.69 |
| 27 | 93.6 | 0.45 | -1.21 | -0.76 |
| 28 | 97.2 | 0.45 | -1.25 | -0.80 |
| 29 | 100.8 | 0.44 | -1.30 | -0.86 |
| 30 | 104.4 | 0.47 | -1.34 | -0.87 |
| 31 | 108.0 | 0.45 | -1.39 | -0.94 |
| 32 | 111.6 | 0.48 | -1.44 | -0.96 |
| 33 | 115.2 | 0.50 | -1.48 | -0.98 |
| 34 | 118.8 | 0.50 | -1.53 | -1.03 |
| 35 | 122.4 | 0.52 | -1.58 | -1.06 |
| 36 | 126.0 | 0.54 | -1.62 | -1.08 |
| 37 | 129.6 | 0.53 | -1.67 | -1.14 |
| 38 | 133.2 | 0.56 | -1.72 | -1.16 |
| 39 | 136.8 | 0.55 | -1.76 | -1.21 |
| 40 | 140.4 | 0.50 | -1.81 | -1.31 |
| 41 | 144.0 | 0.34 | -1.85 | -1.51 |
| 42 | 147.6 | 0.21 | -1.90 | -1.69 |
| 43 | 151.2 | 0.11 | -1.95 | -1.84 |

2220+00, MSU St. 8

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.06 | -0.04 | 0.02 |
| 3 | 7.2 | 0.08 | -0.07 | 0.01 |
| 4 | 10.8 | 0.12 | -0.11 | 0.01 |
| 5 | 14.4 | 0.10 | -0.14 | -0.04 |
| 6 | 18.0 | 0.10 | -0.18 | -0.08 |
| 7 | 21.6 | 0.08 | -0.21 | -0.13 |
| 8 | 25.2 | 0.10 | -0.25 | -0.15 |
| 9 | 28.8 | 0.09 | -0.28 | -0.19 |
| 10 | 32.4 | 0.14 | -0.32 | -0.18 |
| 11 | 36.0 | 0.17 | -0.35 | -0.18 |
| 12 | 39.6 | 0.19 | -0.39 | -0.20 |
| 13 | 43.2 | 0.22 | -0.43 | -0.21 |
| 14 | 46.8 | 0.28 | -0.46 | -0.18 |
| 15 | 50.4 | 0.33 | -0.50 | -0.17 |
| 16 | 54.0 | 0.33 | -0.53 | -0.20 |
| 17 | 57.6 | 0.37 | -0.57 | -0.20 |
| 18 | 61.2 | 0.41 | -0.60 | -0.19 |
| 19 | 64.8 | 0.40 | -0.64 | -0.24 |
| 20 | 68.4 | 0.42 | -0.67 | -0.25 |
| 21 | 72.0 | 0.42 | -0.71 | -0.29 |
| 22 | 75.6 | 0.44 | -0.74 | -0.30 |
| 23 | 79.2 | 0.45 | -0.78 | -0.33 |
| 24 | 82.8 | 0.45 | -0.82 | -0.37 |
| 25 | 86.4 | 0.40 | -0.85 | -0.45 |
| 26 | 90.0 | 0.40 | -0.89 | -0.49 |
| 27 | 93.6 | 0.37 | -0.92 | -0.55 |
| 28 | 97.2 | 0.35 | -0.96 | -0.61 |
| 29 | 100.8 | 0.33 | -0.99 | -0.66 |
| 30 | 104.4 | 0.36 | -1.03 | -0.67 |
| 31 | 108.0 | 0.34 | -1.06 | -0.72 |
| 32 | 111.6 | 0.37 | -1.10 | -0.73 |
| 33 | 115.2 | 0.39 | -1.13 | -0.74 |
| 34 | 118.8 | 0.41 | -1.17 | -0.76 |
| 35 | 122.4 | 0.42 | -1.21 | -0.79 |
| 36 | 126.0 | 0.43 | -1.24 | -0.81 |
| 37 | 129.6 | 0.45 | -1.28 | -0.83 |
| 38 | 133.2 | 0.47 | -1.31 | -0.84 |
| 39 | 136.8 | 0.45 | -1.35 | -0.90 |
| 40 | 140.4 | 0.45 | -1.38 | -0.93 |
| 41 | 144.0 | 0.37 | -1.42 | -1.05 |
| 42 | 147.6 | 0.30 | -1.45 | -1.15 |
| 43 | 151.2 | 0.00 | -1.49 | -1.49 |
| 44 | 154.8 | -0.02 | -1.52 | -1.54 |

Table 42.5: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2214+00, MSU St. 9

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.05 | -0.05 | -0.00 |
| 3 | 7.2 | 0.03 | -0.10 | -0.07 |
| 4 | 10.8 | 0.01 | -0.16 | -0.15 |
| 5 | 14.4 | 0.00 | -0.21 | -0.21 |
| 6 | 18.0 | 0.00 | -0.26 | -0.26 |
| 7 | 21.6 | 0.03 | -0.31 | -0.28 |
| 8 | 25.2 | 0.06 | -0.36 | -0.30 |
| 9 | 28.8 | 0.08 | -0.41 | -0.33 |
| 10 | 32.4 | 0.10 | -0.47 | -0.37 |
| 11 | 36.0 | 0.14 | -0.52 | -0.38 |
| 12 | 39.6 | 0.16 | -0.57 | -0.41 |
| 13 | 43.2 | 0.21 | -0.62 | -0.41 |
| 14 | 46.8 | 0.26 | -0.67 | -0.41 |
| 15 | 50.4 | 0.29 | -0.73 | -0.44 |
| 16 | 54.0 | 0.34 | -0.78 | -0.44 |
| 17 | 57.6 | 0.39 | -0.83 | -0.44 |
| 18 | 61.2 | 0.40 | -0.88 | -0.48 |
| 19 | 64.8 | 0.43 | -0.93 | -0.50 |
| 20 | 68.4 | 0.47 | -0.98 | -0.51 |
| 21 | 72.0 | 0.50 | -1.04 | -0.54 |
| 22 | 75.6 | 0.51 | -1.09 | -0.58 |
| 23 | 79.2 | 0.51 | -1.14 | -0.63 |
| 24 | 82.8 | 0.49 | -1.19 | -0.70 |
| 25 | 86.4 | 0.47 | -1.24 | -0.77 |
| 26 | 90.0 | 0.46 | -1.30 | -0.84 |
| 27 | 93.6 | 0.45 | -1.35 | -0.90 |
| 28 | 97.2 | 0.44 | -1.40 | -0.96 |
| 29 | 100.8 | 0.47 | -1.45 | -0.98 |
| 30 | 104.4 | 0.48 | -1.50 | -1.02 |
| 31 | 108.0 | 0.48 | -1.55 | -1.07 |
| 32 | 111.6 | 0.51 | -1.61 | -1.10 |
| 33 | 115.2 | 0.52 | -1.66 | -1.14 |
| 34 | 118.8 | 0.53 | -1.71 | -1.18 |
| 35 | 122.4 | 0.56 | -1.76 | -1.20 |
| 36 | 126.0 | 0.58 | -1.81 | -1.23 |
| 37 | 129.6 | 0.58 | -1.87 | -1.29 |
| 38 | 133.2 | 0.61 | -1.92 | -1.31 |
| 39 | 136.8 | 0.64 | -1.97 | -1.33 |
| 40 | 140.4 | 0.53 | -2.02 | -1.49 |
| 41 | 144.0 | 0.40 | -2.07 | -1.67 |
| 42 | 147.6 | 0.22 | -2.12 | -1.90 |
| 43 | 151.2 | -0.10 | -2.18 | -2.28 |

2208+00, MSU St. 10

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.08 | -0.06 | 0.02 |
| 3 | 7.2 | 0.12 | -0.11 | 0.01 |
| 4 | 10.8 | 0.13 | -0.17 | -0.04 |
| 5 | 14.4 | 0.13 | -0.23 | -0.10 |
| 6 | 18.0 | 0.10 | -0.29 | -0.19 |
| 7 | 21.6 | 0.11 | -0.34 | -0.23 |
| 8 | 25.2 | 0.12 | -0.40 | -0.28 |
| 9 | 28.8 | 0.11 | -0.46 | -0.35 |
| 10 | 32.4 | 0.15 | -0.52 | -0.37 |
| 11 | 36.0 | 0.17 | -0.57 | -0.40 |
| 12 | 39.6 | 0.18 | -0.63 | -0.45 |
| 13 | 43.2 | 0.20 | -0.69 | -0.49 |
| 14 | 46.8 | 0.24 | -0.74 | -0.50 |
| 15 | 50.4 | 0.28 | -0.80 | -0.52 |
| 16 | 54.0 | 0.31 | -0.86 | -0.55 |
| 17 | 57.6 | 0.34 | -0.92 | -0.58 |
| 18 | 61.2 | 0.37 | -0.97 | -0.60 |
| 19 | 64.8 | 0.40 | -1.03 | -0.63 |
| 20 | 68.4 | 0.39 | -1.09 | -0.70 |
| 21 | 72.0 | 0.41 | -1.15 | -0.74 |
| 22 | 75.6 | 0.42 | -1.20 | -0.78 |
| 23 | 79.2 | 0.42 | -1.26 | -0.84 |
| 24 | 82.8 | 0.41 | -1.32 | -0.91 |
| 25 | 86.4 | 0.41 | -1.37 | -0.96 |
| 26 | 90.0 | 0.40 | -1.43 | -1.03 |
| 27 | 93.6 | 0.37 | -1.49 | -1.12 |
| 28 | 97.2 | 0.36 | -1.55 | -1.19 |
| 29 | 100.8 | 0.35 | -1.60 | -1.25 |
| 30 | 104.4 | 0.36 | -1.66 | -1.30 |
| 31 | 108.0 | 0.37 | -1.72 | -1.35 |
| 32 | 111.6 | 0.39 | -1.78 | -1.39 |
| 33 | 115.2 | 0.39 | -1.83 | -1.44 |
| 34 | 118.8 | 0.40 | -1.89 | -1.49 |
| 35 | 122.4 | 0.45 | -1.95 | -1.50 |
| 36 | 126.0 | 0.47 | -2.00 | -1.53 |
| 37 | 129.6 | 0.50 | -2.06 | -1.56 |
| 38 | 133.2 | 0.50 | -2.12 | -1.62 |
| 39 | 136.8 | 0.49 | -2.18 | -1.69 |
| 40 | 140.4 | 0.51 | -2.23 | -1.72 |
| 41 | 144.0 | 0.38 | -2.29 | -1.91 |
| 42 | 147.6 | 0.27 | -2.35 | -2.08 |
| 43 | 151.2 | 0.11 | -2.41 | -2.30 |

Table 42.6: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2200+00, MSU St. 11

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.05 | -0.04 | 0.01 |
| 3 | 7.2 | 0.16 | -0.09 | 0.07 |
| 4 | 10.8 | 0.22 | -0.13 | 0.09 |
| 5 | 14.4 | 0.23 | -0.17 | -0.05 |
| 6 | 18.0 | 0.12 | -0.22 | -0.31 |
| 7 | 21.6 | -0.09 | -0.26 | -0.46 |
| 8 | 25.2 | -0.20 | -0.31 | -0.49 |
| 9 | 28.8 | -0.18 | -0.35 | -0.48 |
| 10 | 32.4 | -0.13 | -0.39 | -0.54 |
| 11 | 36.0 | -0.15 | -0.44 | -0.58 |
| 12 | 39.6 | -0.14 | -0.48 | -0.52 |
| 13 | 43.2 | -0.04 | -0.52 | -0.42 |
| 14 | 46.8 | 0.10 | -0.57 | -0.30 |
| 15 | 50.4 | 0.27 | -0.61 | -0.18 |
| 16 | 54.0 | 0.43 | -0.65 | -0.10 |
| 17 | 57.6 | 0.55 | -0.70 | -0.13 |
| 18 | 61.2 | 0.57 | -0.74 | -0.15 |
| 19 | 64.8 | 0.59 | -0.79 | -0.22 |
| 20 | 68.4 | 0.57 | -0.83 | -0.26 |
| 21 | 72.0 | 0.57 | -0.87 | -0.31 |
| 22 | 75.6 | 0.56 | -0.92 | -0.37 |
| 23 | 79.2 | 0.55 | -0.96 | -0.42 |
| 24 | 82.8 | 0.54 | -1.00 | -0.43 |
| 25 | 86.4 | 0.57 | -1.05 | -0.51 |
| 26 | 90.0 | 0.54 | -1.09 | -0.71 |
| 27 | 93.6 | 0.38 | -1.13 | -0.90 |
| 28 | 97.2 | 0.23 | -1.18 | -1.04 |
| 29 | 100.8 | 0.14 | -1.22 | -1.11 |
| 30 | 104.4 | 0.11 | -1.27 | -1.14 |
| 31 | 108.0 | 0.13 | -1.31 | -1.18 |
| 32 | 111.6 | 0.14 | -1.35 | -1.21 |
| 33 | 115.2 | 0.17 | -1.40 | -1.23 |
| 34 | 118.8 | 0.28 | -1.44 | -1.16 |
| 35 | 122.4 | 0.41 | -1.48 | -1.07 |
| 36 | 126.0 | 0.59 | -1.53 | -0.94 |
| 37 | 129.6 | 0.74 | -1.57 | -0.83 |
| 38 | 133.2 | 0.72 | -1.61 | -0.89 |
| 39 | 136.8 | 0.59 | -1.66 | -1.07 |
| 40 | 140.4 | 0.52 | -1.70 | -1.18 |
| 41 | 144.0 | 0.40 | -1.75 | -1.35 |
| 42 | 147.6 | 0.26 | -1.79 | -1.53 |
| 43 | 151.2 | 0.11 | -1.83 | -1.72 |

2196+00, MSU St. 12

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.11 | -0.04 | 0.07 |
| 3 | 7.2 | 0.23 | -0.08 | 0.15 |
| 4 | 10.8 | 0.29 | -0.12 | 0.17 |
| 5 | 14.4 | 0.25 | -0.16 | 0.09 |
| 6 | 18.0 | 0.05 | -0.20 | -0.15 |
| 7 | 21.6 | -0.15 | -0.25 | -0.40 |
| 8 | 25.2 | -0.14 | -0.29 | -0.43 |
| 9 | 28.8 | -0.08 | -0.33 | -0.41 |
| 10 | 32.4 | -0.10 | -0.37 | -0.47 |
| 11 | 36.0 | -0.12 | -0.41 | -0.53 |
| 12 | 39.6 | -0.03 | -0.45 | -0.48 |
| 13 | 43.2 | 0.10 | -0.49 | -0.39 |
| 14 | 46.8 | 0.27 | -0.53 | -0.26 |
| 15 | 50.4 | 0.42 | -0.57 | -0.15 |
| 16 | 54.0 | 0.58 | -0.61 | -0.03 |
| 17 | 57.6 | 0.67 | -0.65 | 0.02 |
| 18 | 61.2 | 0.63 | -0.70 | -0.07 |
| 19 | 64.8 | 0.58 | -0.74 | -0.16 |
| 20 | 68.4 | 0.57 | -0.78 | -0.21 |
| 21 | 72.0 | 0.56 | -0.82 | -0.26 |
| 22 | 75.6 | 0.57 | -0.86 | -0.29 |
| 23 | 79.2 | 0.59 | -0.90 | -0.31 |
| 24 | 82.8 | 0.60 | -0.94 | -0.34 |
| 25 | 86.4 | 0.60 | -0.98 | -0.38 |
| 26 | 90.0 | 0.58 | -1.02 | -0.44 |
| 27 | 93.6 | 0.28 | -1.06 | -0.78 |
| 28 | 97.2 | 0.13 | -1.10 | -0.97 |
| 29 | 100.8 | 0.12 | -1.15 | -1.03 |
| 30 | 104.4 | 0.14 | -1.19 | -1.05 |
| 31 | 108.0 | 0.16 | -1.23 | -1.07 |
| 32 | 111.6 | 0.18 | -1.27 | -1.09 |
| 33 | 115.2 | 0.29 | -1.31 | -1.02 |
| 34 | 118.8 | 0.43 | -1.35 | -0.92 |
| 35 | 122.4 | 0.59 | -1.39 | -0.80 |
| 36 | 126.0 | 0.79 | -1.43 | -0.64 |
| 37 | 129.6 | 0.86 | -1.47 | -0.61 |
| 38 | 133.2 | 0.74 | -1.51 | -0.77 |
| 39 | 136.8 | 0.58 | -1.55 | -0.97 |
| 40 | 140.4 | 0.48 | -1.60 | -1.12 |
| 41 | 144.0 | 0.33 | -1.64 | -1.31 |
| 42 | 147.6 | 0.23 | -1.68 | -1.45 |
| 43 | 151.2 | 0.12 | -1.72 | -1.60 |

Table 42.7: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2192+00, MSU St. 13

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.13 | -0.03 | 0.10 |
| 3 | 7.2 | 0.24 | -0.06 | 0.18 |
| 4 | 10.8 | 0.33 | -0.09 | 0.24 |
| 5 | 14.4 | 0.36 | -0.12 | 0.24 |
| 6 | 18.0 | 0.38 | -0.15 | 0.23 |
| 7 | 21.6 | 0.25 | -0.18 | 0.07 |
| 8 | 25.2 | 0.03 | -0.21 | -0.18 |
| 9 | 28.8 | -0.07 | -0.24 | -0.31 |
| 10 | 32.4 | -0.05 | -0.27 | -0.32 |
| 11 | 36.0 | -0.02 | -0.30 | -0.32 |
| 12 | 39.6 | -0.06 | -0.33 | -0.39 |
| 13 | 43.2 | -0.08 | -0.36 | -0.44 |
| 14 | 46.8 | 0.04 | -0.39 | -0.35 |
| 15 | 50.4 | 0.15 | -0.42 | -0.27 |
| 16 | 54.0 | 0.24 | -0.45 | -0.21 |
| 17 | 57.6 | 0.38 | -0.48 | -0.10 |
| 18 | 61.2 | 0.50 | -0.51 | -0.01 |
| 19 | 64.8 | 0.53 | -0.54 | -0.01 |
| 20 | 68.4 | 0.52 | -0.57 | -0.05 |
| 21 | 72.0 | 0.51 | -0.60 | -0.09 |
| 22 | 75.6 | 0.50 | -0.63 | -0.13 |
| 23 | 79.2 | 0.48 | -0.66 | -0.18 |
| 24 | 82.8 | 0.47 | -0.69 | -0.22 |
| 25 | 86.4 | 0.46 | -0.72 | -0.26 |
| 26 | 90.0 | 0.44 | -0.75 | -0.31 |
| 27 | 93.6 | 0.41 | -0.78 | -0.37 |
| 28 | 97.2 | 0.25 | -0.81 | -0.56 |
| 29 | 100.8 | 0.04 | -0.84 | -0.80 |
| 30 | 104.4 | -0.03 | -0.87 | -0.90 |
| 31 | 108.0 | -0.05 | -0.90 | -0.95 |
| 32 | 111.6 | -0.06 | -0.93 | -0.99 |
| 33 | 115.2 | -0.06 | -0.96 | -1.02 |
| 34 | 118.8 | -0.02 | -0.99 | -1.01 |
| 35 | 122.4 | 0.05 | -1.02 | -0.97 |
| 36 | 126.0 | 0.18 | -1.05 | -0.87 |
| 37 | 129.6 | 0.30 | -1.08 | -0.78 |
| 38 | 133.2 | 0.43 | -1.11 | -0.68 |
| 39 | 136.8 | 0.50 | -1.14 | -0.64 |
| 40 | 140.4 | 0.47 | -1.17 | -0.70 |
| 41 | 144.0 | 0.30 | -1.20 | -0.90 |
| 42 | 147.6 | 0.19 | -1.23 | -1.04 |

2188+00, MSU St. 14

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.03 | 0.07 |
| 3 | 7.2 | 0.18 | -0.07 | 0.11 |
| 4 | 10.8 | 0.31 | -0.10 | 0.21 |
| 5 | 14.4 | 0.33 | -0.13 | 0.20 |
| 6 | 18.0 | 0.29 | -0.16 | 0.13 |
| 7 | 21.6 | 0.15 | -0.20 | -0.05 |
| 8 | 25.2 | 0.00 | -0.23 | -0.23 |
| 9 | 28.8 | -0.01 | -0.26 | -0.27 |
| 10 | 32.4 | 0.04 | -0.29 | -0.25 |
| 11 | 36.0 | 0.00 | -0.33 | -0.33 |
| 12 | 39.6 | 0.03 | -0.36 | -0.33 |
| 13 | 43.2 | 0.10 | -0.39 | -0.29 |
| 14 | 46.8 | 0.19 | -0.43 | -0.24 |
| 15 | 50.4 | 0.29 | -0.46 | -0.17 |
| 16 | 54.0 | 0.46 | -0.49 | -0.03 |
| 17 | 57.6 | 0.58 | -0.52 | 0.06 |
| 18 | 61.2 | 0.66 | -0.56 | 0.10 |
| 19 | 64.8 | 0.64 | -0.59 | 0.05 |
| 20 | 68.4 | 0.61 | -0.62 | -0.01 |
| 21 | 72.0 | 0.63 | -0.65 | -0.02 |
| 22 | 75.6 | 0.63 | -0.69 | -0.06 |
| 23 | 79.2 | 0.62 | -0.72 | -0.10 |
| 24 | 82.8 | 0.63 | -0.75 | -0.12 |
| 25 | 86.4 | 0.62 | -0.79 | -0.17 |
| 26 | 90.0 | 0.60 | -0.82 | -0.22 |
| 27 | 93.6 | 0.52 | -0.85 | -0.33 |
| 28 | 97.2 | 0.35 | -0.88 | -0.53 |
| 29 | 100.8 | 0.26 | -0.92 | -0.66 |
| 30 | 104.4 | 0.24 | -0.95 | -0.71 |
| 31 | 108.0 | 0.23 | -0.98 | -0.75 |
| 32 | 111.6 | 0.22 | -1.01 | -0.79 |
| 33 | 115.2 | 0.25 | -1.05 | -0.80 |
| 34 | 118.8 | 0.33 | -1.08 | -0.75 |
| 35 | 122.4 | 0.44 | -1.11 | -0.67 |
| 36 | 126.0 | 0.56 | -1.15 | -0.59 |
| 37 | 129.6 | 0.71 | -1.18 | -0.47 |
| 38 | 133.2 | 0.84 | -1.21 | -0.37 |
| 39 | 136.8 | 0.86 | -1.24 | -0.38 |
| 40 | 140.4 | 0.71 | -1.28 | -0.57 |
| 41 | 144.0 | 0.54 | -1.31 | -0.77 |
| 42 | 147.6 | 0.52 | -1.34 | -0.82 |

Table 42.8: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2184+00, MSU St. 15

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.03 | -0.03 | 0.00 |
| 3 | 7.2 | 0.16 | -0.05 | 0.11 |
| 4 | 10.8 | 0.20 | -0.08 | 0.12 |
| 5 | 14.4 | 0.27 | -0.11 | 0.16 |
| 6 | 18.0 | 0.28 | -0.14 | 0.14 |
| 7 | 21.6 | 0.13 | -0.16 | -0.03 |
| 8 | 25.2 | -0.04 | -0.19 | -0.23 |
| 9 | 28.8 | -0.08 | -0.22 | -0.30 |
| 10 | 32.4 | -0.05 | -0.25 | -0.30 |
| 11 | 36.0 | -0.06 | -0.27 | -0.33 |
| 12 | 39.6 | -0.07 | -0.30 | -0.37 |
| 13 | 43.2 | 0.00 | -0.33 | -0.33 |
| 14 | 46.8 | 0.10 | -0.35 | -0.25 |
| 15 | 50.4 | 0.21 | -0.38 | -0.17 |
| 16 | 54.0 | 0.39 | -0.41 | -0.02 |
| 17 | 57.6 | 0.51 | -0.44 | 0.07 |
| 18 | 61.2 | 0.58 | -0.46 | 0.12 |
| 19 | 64.8 | 0.61 | -0.49 | 0.12 |
| 20 | 68.4 | 0.57 | -0.52 | 0.05 |
| 21 | 72.0 | 0.55 | -0.55 | 0.00 |
| 22 | 75.6 | 0.56 | -0.57 | -0.01 |
| 23 | 79.2 | 0.58 | -0.60 | -0.02 |
| 24 | 82.8 | 0.54 | -0.63 | -0.09 |
| 25 | 86.4 | 0.52 | -0.65 | -0.13 |
| 26 | 90.0 | 0.53 | -0.68 | -0.15 |
| 27 | 93.6 | 0.41 | -0.71 | -0.30 |
| 28 | 97.2 | 0.26 | -0.74 | -0.48 |
| 29 | 100.8 | 0.13 | -0.76 | -0.63 |
| 30 | 104.4 | 0.10 | -0.79 | -0.69 |
| 31 | 108.0 | 0.10 | -0.82 | -0.72 |
| 32 | 111.6 | 0.11 | -0.85 | -0.74 |
| 33 | 115.2 | 0.12 | -0.87 | -0.75 |
| 34 | 118.8 | 0.18 | -0.90 | -0.72 |
| 35 | 122.4 | 0.29 | -0.93 | -0.64 |
| 36 | 126.0 | 0.39 | -0.95 | -0.56 |
| 37 | 129.6 | 0.57 | -0.98 | -0.41 |
| 38 | 133.2 | 0.64 | -1.01 | -0.37 |
| 39 | 136.8 | 0.62 | -1.04 | -0.42 |
| 40 | 140.4 | 0.49 | -1.06 | -0.57 |
| 41 | 144.0 | 0.31 | -1.09 | -0.78 |
| 42 | 147.6 | 0.21 | -1.12 | -0.91 |

2180+00, MSU St. 16

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.04 | 0.06 |
| 3 | 7.2 | 0.20 | -0.07 | 0.13 |
| 4 | 10.8 | 0.29 | -0.11 | 0.18 |
| 5 | 14.4 | 0.33 | -0.14 | 0.19 |
| 6 | 18.0 | 0.31 | -0.18 | 0.13 |
| 7 | 21.6 | 0.12 | -0.21 | -0.09 |
| 8 | 25.2 | -0.01 | -0.25 | -0.26 |
| 9 | 28.8 | 0.00 | -0.28 | -0.28 |
| 10 | 32.4 | 0.05 | -0.32 | -0.27 |
| 11 | 36.0 | 0.01 | -0.35 | -0.34 |
| 12 | 39.6 | 0.02 | -0.39 | -0.37 |
| 13 | 43.2 | 0.13 | -0.43 | -0.30 |
| 14 | 46.8 | 0.27 | -0.46 | -0.19 |
| 15 | 50.4 | 0.41 | -0.50 | -0.09 |
| 16 | 54.0 | 0.55 | -0.53 | 0.02 |
| 17 | 57.6 | 0.67 | -0.57 | 0.10 |
| 18 | 61.2 | 0.70 | -0.60 | 0.10 |
| 19 | 64.8 | 0.70 | -0.64 | 0.06 |
| 20 | 68.4 | 0.71 | -0.67 | 0.04 |
| 21 | 72.0 | 0.70 | -0.71 | -0.01 |
| 22 | 75.6 | 0.73 | -0.74 | -0.01 |
| 23 | 79.2 | 0.75 | -0.78 | -0.03 |
| 24 | 82.8 | 0.71 | -0.82 | -0.11 |
| 25 | 86.4 | 0.70 | -0.85 | -0.15 |
| 26 | 90.0 | 0.70 | -0.89 | -0.19 |
| 27 | 93.6 | 0.58 | -0.92 | -0.34 |
| 28 | 97.2 | 0.41 | -0.96 | -0.55 |
| 29 | 100.8 | 0.32 | -0.99 | -0.67 |
| 30 | 104.4 | 0.33 | -1.03 | -0.70 |
| 31 | 108.0 | 0.32 | -1.06 | -0.74 |
| 32 | 111.6 | 0.35 | -1.10 | -0.75 |
| 33 | 115.2 | 0.35 | -1.13 | -0.78 |
| 34 | 118.8 | 0.44 | -1.17 | -0.73 |
| 35 | 122.4 | 0.57 | -1.21 | -0.64 |
| 36 | 126.0 | 0.69 | -1.24 | -0.55 |
| 37 | 129.6 | 0.80 | -1.28 | -0.48 |
| 38 | 133.2 | 0.76 | -1.31 | -0.55 |
| 39 | 136.8 | 0.67 | -1.35 | -0.68 |
| 40 | 140.4 | 0.60 | -1.38 | -0.78 |
| 41 | 144.0 | 0.48 | -1.42 | -0.94 |
| 42 | 147.6 | 0.35 | -1.45 | -1.10 |
| 43 | 151.2 | 0.21 | -1.49 | -1.28 |

Table 42.9: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2176+00, MSU St. 17

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.05 | 0.05 |
| 3 | 7.2 | 0.14 | -0.10 | 0.04 |
| 4 | 10.8 | 0.17 | -0.15 | 0.02 |
| 5 | 14.4 | 0.16 | -0.20 | -0.04 |
| 6 | 18.0 | 0.07 | -0.25 | -0.18 |
| 7 | 21.6 | -0.03 | -0.29 | -0.32 |
| 8 | 25.2 | -0.09 | -0.34 | -0.43 |
| 9 | 28.8 | -0.07 | -0.39 | -0.46 |
| 10 | 32.4 | -0.13 | -0.44 | -0.57 |
| 11 | 36.0 | -0.13 | -0.49 | -0.62 |
| 12 | 39.6 | -0.03 | -0.54 | -0.57 |
| 13 | 43.2 | 0.04 | -0.59 | -0.55 |
| 14 | 46.8 | 0.10 | -0.64 | -0.54 |
| 15 | 50.4 | 0.14 | -0.69 | -0.55 |
| 16 | 54.0 | 0.40 | -0.74 | -0.34 |
| 17 | 57.6 | 0.51 | -0.79 | -0.28 |
| 18 | 61.2 | 0.58 | -0.83 | -0.25 |
| 19 | 64.8 | 0.59 | -0.88 | -0.29 |
| 20 | 68.4 | 0.60 | -0.93 | -0.33 |
| 21 | 72.0 | 0.62 | -0.98 | -0.36 |
| 22 | 75.6 | 0.63 | -1.03 | -0.40 |
| 23 | 79.2 | 0.61 | -1.08 | -0.47 |
| 24 | 82.8 | 0.59 | -1.13 | -0.54 |
| 25 | 86.4 | 0.56 | -1.18 | -0.62 |
| 26 | 90.0 | 0.50 | -1.23 | -0.73 |
| 27 | 93.6 | 0.33 | -1.28 | -0.95 |
| 28 | 97.2 | 0.26 | -1.33 | -1.07 |
| 29 | 100.8 | 0.21 | -1.37 | -1.16 |
| 30 | 104.4 | 0.18 | -1.42 | -1.24 |
| 31 | 108.0 | 0.17 | -1.47 | -1.30 |
| 32 | 111.6 | 0.21 | -1.52 | -1.31 |
| 33 | 115.2 | 0.23 | -1.57 | -1.34 |
| 34 | 118.8 | 0.30 | -1.62 | -1.32 |
| 35 | 122.4 | 0.38 | -1.67 | -1.29 |
| 36 | 126.0 | 0.49 | -1.72 | -1.23 |
| 37 | 129.6 | 0.59 | -1.77 | -1.18 |
| 38 | 133.2 | 0.57 | -1.82 | -1.25 |
| 39 | 136.8 | 0.48 | -1.87 | -1.39 |
| 40 | 140.4 | 0.46 | -1.91 | -1.45 |
| 41 | 144.0 | 0.34 | -1.96 | -1.62 |
| 42 | 147.6 | 0.22 | -2.01 | -1.79 |

2170+00, MSU St. 18

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.07 | -0.04 | 0.03 |
| 3 | 7.2 | 0.07 | -0.09 | -0.02 |
| 4 | 10.8 | 0.04 | -0.13 | -0.09 |
| 5 | 14.4 | 0.00 | -0.17 | -0.17 |
| 6 | 18.0 | 0.01 | -0.22 | -0.21 |
| 7 | 21.6 | 0.02 | -0.26 | -0.24 |
| 8 | 25.2 | 0.06 | -0.31 | -0.25 |
| 9 | 28.8 | 0.08 | -0.35 | -0.27 |
| 10 | 32.4 | 0.12 | -0.39 | -0.27 |
| 11 | 36.0 | 0.14 | -0.44 | -0.30 |
| 12 | 39.6 | 0.20 | -0.48 | -0.28 |
| 13 | 43.2 | 0.24 | -0.52 | -0.28 |
| 14 | 46.8 | 0.30 | -0.57 | -0.27 |
| 15 | 50.4 | 0.39 | -0.61 | -0.22 |
| 16 | 54.0 | 0.43 | -0.65 | -0.22 |
| 17 | 57.6 | 0.46 | -0.70 | -0.24 |
| 18 | 61.2 | 0.50 | -0.74 | -0.24 |
| 19 | 64.8 | 0.51 | -0.79 | -0.28 |
| 20 | 68.4 | 0.53 | -0.83 | -0.30 |
| 21 | 72.0 | 0.55 | -0.87 | -0.32 |
| 22 | 75.6 | 0.59 | -0.92 | -0.33 |
| 23 | 79.2 | 0.59 | -0.96 | -0.37 |
| 24 | 82.8 | 0.60 | -1.00 | -0.40 |
| 25 | 86.4 | 0.57 | -1.05 | -0.48 |
| 26 | 90.0 | 0.54 | -1.09 | -0.55 |
| 27 | 93.6 | 0.48 | -1.13 | -0.65 |
| 28 | 97.2 | 0.45 | -1.18 | -0.73 |
| 29 | 100.8 | 0.45 | -1.22 | -0.77 |
| 30 | 104.4 | 0.47 | -1.27 | -0.80 |
| 31 | 108.0 | 0.48 | -1.31 | -0.83 |
| 32 | 111.6 | 0.50 | -1.35 | -0.85 |
| 33 | 115.2 | 0.52 | -1.40 | -0.88 |
| 34 | 118.8 | 0.56 | -1.44 | -0.88 |
| 35 | 122.4 | 0.59 | -1.48 | -0.89 |
| 36 | 126.0 | 0.60 | -1.53 | -0.93 |
| 37 | 129.6 | 0.60 | -1.57 | -0.97 |
| 38 | 133.2 | 0.62 | -1.61 | -0.99 |
| 39 | 136.8 | 0.63 | -1.66 | -1.03 |
| 40 | 140.4 | 0.59 | -1.70 | -1.11 |
| 41 | 144.0 | 0.52 | -1.75 | -1.23 |
| 42 | 147.6 | 0.41 | -1.79 | -1.38 |
| 43 | 151.2 | 0.30 | -1.83 | -1.53 |

Table 42.10: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2164+00, MSU St. 19

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.06 | -0.04 | 0.02 |
| 3 | 7.2 | 0.10 | -0.09 | 0.01 |
| 4 | 10.8 | 0.10 | -0.13 | -0.03 |
| 5 | 14.4 | 0.07 | -0.17 | -0.10 |
| 6 | 18.0 | 0.08 | -0.22 | -0.14 |
| 7 | 21.6 | 0.05 | -0.26 | -0.21 |
| 8 | 25.2 | 0.05 | -0.31 | -0.26 |
| 9 | 28.8 | 0.07 | -0.35 | -0.28 |
| 10 | 32.4 | 0.09 | -0.39 | -0.30 |
| 11 | 36.0 | 0.12 | -0.44 | -0.32 |
| 12 | 39.6 | 0.17 | -0.48 | -0.31 |
| 13 | 43.2 | 0.21 | -0.52 | -0.31 |
| 14 | 46.8 | 0.29 | -0.57 | -0.28 |
| 15 | 50.4 | 0.31 | -0.61 | -0.30 |
| 16 | 54.0 | 0.36 | -0.65 | -0.29 |
| 17 | 57.6 | 0.42 | -0.70 | -0.28 |
| 18 | 61.2 | 0.47 | -0.74 | -0.27 |
| 19 | 64.8 | 0.50 | -0.79 | -0.29 |
| 20 | 68.4 | 0.54 | -0.83 | -0.29 |
| 21 | 72.0 | 0.54 | -0.87 | -0.33 |
| 22 | 75.6 | 0.56 | -0.92 | -0.36 |
| 23 | 79.2 | 0.58 | -0.96 | -0.38 |
| 24 | 82.8 | 0.55 | -1.00 | -0.45 |
| 25 | 86.4 | 0.50 | -1.05 | -0.55 |
| 26 | 90.0 | 0.48 | -1.09 | -0.61 |
| 27 | 93.6 | 0.43 | -1.13 | -0.70 |
| 28 | 97.2 | 0.46 | -1.18 | -0.72 |
| 29 | 100.8 | 0.45 | -1.22 | -0.77 |
| 30 | 104.4 | 0.42 | -1.27 | -0.85 |
| 31 | 108.0 | 0.49 | -1.31 | -0.82 |
| 32 | 111.6 | 0.48 | -1.35 | -0.87 |
| 33 | 115.2 | 0.49 | -1.40 | -0.91 |
| 34 | 118.8 | 0.55 | -1.44 | -0.89 |
| 35 | 122.4 | 0.58 | -1.48 | -0.90 |
| 36 | 126.0 | 0.56 | -1.53 | -0.97 |
| 37 | 129.6 | 0.55 | -1.57 | -1.02 |
| 38 | 133.2 | 0.53 | -1.61 | -1.08 |
| 39 | 136.8 | 0.50 | -1.66 | -1.16 |
| 40 | 140.4 | 0.37 | -1.70 | -1.33 |
| 41 | 144.0 | 0.24 | -1.75 | -1.51 |
| 42 | 147.6 | 0.18 | -1.79 | -1.61 |

2160+00, MSU St. 20

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.03 | -0.05 | -0.02 |
| 3 | 7.2 | 0.07 | -0.09 | -0.02 |
| 4 | 10.8 | 0.07 | -0.14 | -0.07 |
| 5 | 14.4 | 0.05 | -0.19 | -0.14 |
| 6 | 18.0 | 0.04 | -0.23 | -0.19 |
| 7 | 21.6 | 0.04 | -0.28 | -0.24 |
| 8 | 25.2 | 0.05 | -0.32 | -0.27 |
| 9 | 28.8 | 0.06 | -0.37 | -0.31 |
| 10 | 32.4 | 0.07 | -0.42 | -0.35 |
| 11 | 36.0 | 0.08 | -0.46 | -0.38 |
| 12 | 39.6 | 0.11 | -0.51 | -0.40 |
| 13 | 43.2 | 0.17 | -0.56 | -0.39 |
| 14 | 46.8 | 0.19 | -0.60 | -0.41 |
| 15 | 50.4 | 0.20 | -0.65 | -0.45 |
| 16 | 54.0 | 0.24 | -0.70 | -0.46 |
| 17 | 57.6 | 0.27 | -0.74 | -0.47 |
| 18 | 61.2 | 0.30 | -0.79 | -0.49 |
| 19 | 64.8 | 0.34 | -0.83 | -0.49 |
| 20 | 68.4 | 0.39 | -0.88 | -0.49 |
| 21 | 72.0 | 0.41 | -0.93 | -0.52 |
| 22 | 75.6 | 0.46 | -0.97 | -0.51 |
| 23 | 79.2 | 0.47 | -1.02 | -0.55 |
| 24 | 82.8 | 0.47 | -1.07 | -0.60 |
| 25 | 86.4 | 0.46 | -1.11 | -0.65 |
| 26 | 90.0 | 0.42 | -1.16 | -0.74 |
| 27 | 93.6 | 0.40 | -1.21 | -0.81 |
| 28 | 97.2 | 0.41 | -1.25 | -0.84 |
| 29 | 100.8 | 0.40 | -1.30 | -0.90 |
| 30 | 104.4 | 0.37 | -1.34 | -0.97 |
| 31 | 108.0 | 0.40 | -1.39 | -0.99 |
| 32 | 111.6 | 0.43 | -1.44 | -1.01 |
| 33 | 115.2 | 0.43 | -1.48 | -1.05 |
| 34 | 118.8 | 0.47 | -1.53 | -1.06 |
| 35 | 122.4 | 0.49 | -1.58 | -1.09 |
| 36 | 126.0 | 0.49 | -1.62 | -1.13 |
| 37 | 129.6 | 0.50 | -1.67 | -1.17 |
| 38 | 133.2 | 0.48 | -1.72 | -1.24 |
| 39 | 136.8 | 0.47 | -1.76 | -1.29 |
| 40 | 140.4 | 0.44 | -1.81 | -1.37 |
| 41 | 144.0 | 0.33 | -1.85 | -1.52 |
| 42 | 147.6 | 0.20 | -1.90 | -1.70 |

Table 42.11: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2154+00, MSU St. 21

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.07 | -0.03 | 0.04 |
| 3 | 7.2 | 0.15 | -0.05 | 0.10 |
| 4 | 10.8 | 0.23 | -0.08 | 0.15 |
| 5 | 14.4 | 0.23 | -0.11 | 0.12 |
| 6 | 18.0 | 0.20 | -0.14 | 0.06 |
| 7 | 21.6 | 0.22 | -0.16 | 0.06 |
| 8 | 25.2 | 0.23 | -0.19 | 0.04 |
| 9 | 28.8 | 0.21 | -0.22 | -0.01 |
| 10 | 32.4 | 0.23 | -0.25 | -0.02 |
| 11 | 36.0 | 0.24 | -0.27 | -0.03 |
| 12 | 39.6 | 0.26 | -0.30 | -0.04 |
| 13 | 43.2 | 0.28 | -0.33 | -0.05 |
| 14 | 46.8 | 0.32 | -0.35 | -0.03 |
| 15 | 50.4 | 0.35 | -0.38 | -0.03 |
| 16 | 54.0 | 0.40 | -0.41 | -0.01 |
| 17 | 57.6 | 0.40 | -0.44 | -0.04 |
| 18 | 61.2 | 0.43 | -0.46 | -0.03 |
| 19 | 64.8 | 0.48 | -0.49 | -0.01 |
| 20 | 68.4 | 0.49 | -0.52 | -0.03 |
| 21 | 72.0 | 0.50 | -0.55 | -0.05 |
| 22 | 75.6 | 0.51 | -0.57 | -0.06 |
| 23 | 79.2 | 0.53 | -0.60 | -0.07 |
| 24 | 82.8 | 0.54 | -0.63 | -0.09 |
| 25 | 86.4 | 0.53 | -0.65 | -0.12 |
| 26 | 90.0 | 0.53 | -0.68 | -0.15 |
| 27 | 93.6 | 0.50 | -0.71 | -0.21 |
| 28 | 97.2 | 0.45 | -0.74 | -0.29 |
| 29 | 100.8 | 0.44 | -0.76 | -0.32 |
| 30 | 104.4 | 0.42 | -0.79 | -0.37 |
| 31 | 108.0 | 0.40 | -0.82 | -0.42 |
| 32 | 111.6 | 0.41 | -0.85 | -0.44 |
| 33 | 115.2 | 0.42 | -0.87 | -0.45 |
| 34 | 118.8 | 0.44 | -0.90 | -0.46 |
| 35 | 122.4 | 0.48 | -0.93 | -0.45 |
| 36 | 126.0 | 0.50 | -0.95 | -0.45 |
| 37 | 129.6 | 0.49 | -0.98 | -0.49 |
| 38 | 133.2 | 0.51 | -1.01 | -0.50 |
| 39 | 136.8 | 0.50 | -1.04 | -0.54 |
| 40 | 140.4 | 0.48 | -1.06 | -0.58 |
| 41 | 144.0 | 0.48 | -1.09 | -0.61 |
| 42 | 147.6 | 0.34 | -1.12 | -0.78 |

2150+00, MSU St. 22

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.08 | -0.04 | 0.04 |
| 3 | 7.2 | 0.14 | -0.08 | 0.06 |
| 4 | 10.8 | 0.17 | -0.11 | 0.06 |
| 5 | 14.4 | 0.19 | -0.15 | 0.04 |
| 6 | 18.0 | 0.19 | -0.19 | -0.00 |
| 7 | 21.6 | 0.16 | -0.23 | -0.07 |
| 8 | 25.2 | 0.20 | -0.27 | -0.07 |
| 9 | 28.8 | 0.25 | -0.31 | -0.06 |
| 10 | 32.4 | 0.29 | -0.34 | -0.05 |
| 11 | 36.0 | 0.30 | -0.38 | -0.08 |
| 12 | 39.6 | 0.34 | -0.42 | -0.08 |
| 13 | 43.2 | 0.40 | -0.46 | -0.06 |
| 14 | 46.8 | 0.44 | -0.50 | -0.06 |
| 15 | 50.4 | 0.49 | -0.53 | -0.04 |
| 16 | 54.0 | 0.51 | -0.57 | -0.06 |
| 17 | 57.6 | 0.57 | -0.61 | -0.04 |
| 18 | 61.2 | 0.54 | -0.65 | -0.11 |
| 19 | 64.8 | 0.61 | -0.69 | -0.08 |
| 20 | 68.4 | 0.66 | -0.73 | -0.07 |
| 21 | 72.0 | 0.67 | -0.76 | -0.09 |
| 22 | 75.6 | 0.69 | -0.80 | -0.11 |
| 23 | 79.2 | 0.71 | -0.84 | -0.13 |
| 24 | 82.8 | 0.70 | -0.88 | -0.18 |
| 25 | 86.4 | 0.71 | -0.92 | -0.21 |
| 26 | 90.0 | 0.68 | -0.95 | -0.27 |
| 27 | 93.6 | 0.65 | -0.99 | -0.34 |
| 28 | 97.2 | 0.66 | -1.03 | -0.37 |
| 29 | 100.8 | 0.63 | -1.07 | -0.44 |
| 30 | 104.4 | 0.64 | -1.11 | -0.47 |
| 31 | 108.0 | 0.68 | -1.15 | -0.47 |
| 32 | 111.6 | 0.67 | -1.18 | -0.51 |
| 33 | 115.2 | 0.70 | -1.22 | -0.52 |
| 34 | 118.8 | 0.70 | -1.26 | -0.56 |
| 35 | 122.4 | 0.74 | -1.30 | -0.56 |
| 36 | 126.0 | 0.75 | -1.34 | -0.59 |
| 37 | 129.6 | 0.78 | -1.37 | -0.59 |
| 38 | 133.2 | 0.79 | -1.41 | -0.62 |
| 39 | 136.8 | 0.80 | -1.45 | -0.65 |
| 40 | 140.4 | 0.70 | -1.49 | -0.79 |
| 41 | 144.0 | 0.61 | -1.53 | -0.92 |
| 42 | 147.6 | 0.50 | -1.57 | -1.07 |

Table 42.12: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2144+00, MSU St. 23

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.03 | 0.07 |
| 3 | 7.2 | 0.13 | -0.05 | 0.08 |
| 4 | 10.8 | 0.17 | -0.08 | 0.09 |
| 5 | 14.4 | 0.18 | -0.11 | 0.07 |
| 6 | 18.0 | 0.12 | -0.14 | -0.02 |
| 7 | 21.6 | 0.09 | -0.16 | -0.07 |
| 8 | 25.2 | 0.11 | -0.19 | -0.08 |
| 9 | 28.8 | 0.14 | -0.22 | -0.08 |
| 10 | 32.4 | 0.22 | -0.25 | -0.03 |
| 11 | 36.0 | 0.21 | -0.27 | -0.06 |
| 12 | 39.6 | 0.23 | -0.30 | -0.07 |
| 13 | 43.2 | 0.28 | -0.33 | -0.05 |
| 14 | 46.8 | 0.31 | -0.35 | -0.04 |
| 15 | 50.4 | 0.34 | -0.38 | -0.04 |
| 16 | 54.0 | 0.41 | -0.41 | 0.00 |
| 17 | 57.6 | 0.46 | -0.44 | 0.02 |
| 18 | 61.2 | 0.48 | -0.46 | 0.02 |
| 19 | 64.8 | 0.53 | -0.49 | 0.04 |
| 20 | 68.4 | 0.54 | -0.52 | 0.02 |
| 21 | 72.0 | 0.53 | -0.55 | -0.02 |
| 22 | 75.6 | 0.56 | -0.57 | -0.01 |
| 23 | 79.2 | 0.59 | -0.60 | -0.01 |
| 24 | 82.8 | 0.58 | -0.63 | -0.05 |
| 25 | 86.4 | 0.59 | -0.65 | -0.06 |
| 26 | 90.0 | 0.58 | -0.68 | -0.10 |
| 27 | 93.6 | 0.53 | -0.71 | -0.18 |
| 28 | 97.2 | 0.53 | -0.74 | -0.21 |
| 29 | 100.8 | 0.52 | -0.76 | -0.24 |
| 30 | 104.4 | 0.51 | -0.79 | -0.28 |
| 31 | 108.0 | 0.52 | -0.82 | -0.30 |
| 32 | 111.6 | 0.50 | -0.85 | -0.35 |
| 33 | 115.2 | 0.50 | -0.87 | -0.37 |
| 34 | 118.8 | 0.52 | -0.90 | -0.38 |
| 35 | 122.4 | 0.54 | -0.93 | -0.39 |
| 36 | 126.0 | 0.54 | -0.95 | -0.41 |
| 37 | 129.6 | 0.57 | -0.98 | -0.41 |
| 38 | 133.2 | 0.56 | -1.01 | -0.45 |
| 39 | 136.8 | 0.56 | -1.04 | -0.48 |
| 40 | 140.4 | 0.55 | -1.06 | -0.51 |
| 41 | 144.0 | 0.51 | -1.09 | -0.58 |
| 42 | 147.6 | 0.47 | -1.12 | -0.65 |
| 43 | 151.2 | 0.30 | -1.15 | -0.85 |

2138+00, MSU St. 24

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.12 | -0.02 | 0.10 |
| 3 | 7.2 | 0.15 | -0.04 | 0.11 |
| 4 | 10.8 | 0.19 | -0.07 | 0.12 |
| 5 | 14.4 | 0.20 | -0.09 | 0.11 |
| 6 | 18.0 | 0.18 | -0.11 | 0.07 |
| 7 | 21.6 | 0.14 | -0.13 | 0.01 |
| 8 | 25.2 | 0.19 | -0.15 | 0.04 |
| 9 | 28.8 | 0.20 | -0.17 | 0.03 |
| 10 | 32.4 | 0.21 | -0.20 | 0.01 |
| 11 | 36.0 | 0.23 | -0.22 | 0.01 |
| 12 | 39.6 | 0.24 | -0.24 | -0.00 |
| 13 | 43.2 | 0.30 | -0.26 | 0.04 |
| 14 | 46.8 | 0.34 | -0.28 | 0.06 |
| 15 | 50.4 | 0.37 | -0.31 | 0.06 |
| 16 | 54.0 | 0.41 | -0.33 | 0.08 |
| 17 | 57.6 | 0.44 | -0.35 | 0.09 |
| 18 | 61.2 | 0.47 | -0.37 | 0.10 |
| 19 | 64.8 | 0.51 | -0.39 | 0.12 |
| 20 | 68.4 | 0.53 | -0.41 | 0.12 |
| 21 | 72.0 | 0.51 | -0.44 | 0.07 |
| 22 | 75.6 | 0.56 | -0.46 | 0.10 |
| 23 | 79.2 | 0.57 | -0.48 | 0.09 |
| 24 | 82.8 | 0.55 | -0.50 | 0.05 |
| 25 | 86.4 | 0.55 | -0.52 | 0.03 |
| 26 | 90.0 | 0.51 | -0.55 | -0.04 |
| 27 | 93.6 | 0.46 | -0.57 | -0.11 |
| 28 | 97.2 | 0.46 | -0.59 | -0.13 |
| 29 | 100.8 | 0.47 | -0.61 | -0.14 |
| 30 | 104.4 | 0.46 | -0.63 | -0.17 |
| 31 | 108.0 | 0.45 | -0.65 | -0.20 |
| 32 | 111.6 | 0.44 | -0.68 | -0.24 |
| 33 | 115.2 | 0.47 | -0.70 | -0.23 |
| 34 | 118.8 | 0.48 | -0.72 | -0.24 |
| 35 | 122.4 | 0.47 | -0.74 | -0.27 |
| 36 | 126.0 | 0.47 | -0.76 | -0.29 |
| 37 | 129.6 | 0.47 | -0.79 | -0.32 |
| 38 | 133.2 | 0.46 | -0.81 | -0.35 |
| 39 | 136.8 | 0.44 | -0.83 | -0.39 |
| 40 | 140.4 | 0.45 | -0.85 | -0.40 |
| 41 | 144.0 | 0.40 | -0.87 | -0.47 |
| 42 | 147.6 | 0.32 | -0.89 | -0.57 |
| 43 | 151.2 | 0.21 | -0.92 | -0.71 |

Table 42.13: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Driving Lane.

2134+00, MSU St. 25

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.03 | -0.03 | -0.00 |
| 3 | 7.2 | 0.10 | -0.07 | 0.03 |
| 4 | 10.8 | 0.10 | -0.10 | 0.00 |
| 5 | 14.4 | 0.10 | -0.13 | -0.03 |
| 6 | 18.0 | 0.09 | -0.16 | -0.07 |
| 7 | 21.6 | 0.11 | -0.20 | -0.09 |
| 8 | 25.2 | 0.12 | -0.23 | -0.11 |
| 9 | 28.8 | 0.14 | -0.26 | -0.12 |
| 10 | 32.4 | 0.18 | -0.29 | -0.11 |
| 11 | 36.0 | 0.21 | -0.33 | -0.12 |
| 12 | 39.6 | 0.22 | -0.36 | -0.14 |
| 13 | 43.2 | 0.24 | -0.39 | -0.15 |
| 14 | 46.8 | 0.31 | -0.43 | -0.12 |
| 15 | 50.4 | 0.36 | -0.46 | -0.10 |
| 16 | 54.0 | 0.40 | -0.49 | -0.09 |
| 17 | 57.6 | 0.41 | -0.52 | -0.11 |
| 18 | 61.2 | 0.42 | -0.56 | -0.14 |
| 19 | 64.8 | 0.43 | -0.59 | -0.16 |
| 20 | 68.4 | 0.49 | -0.62 | -0.13 |
| 21 | 72.0 | 0.48 | -0.65 | -0.17 |
| 22 | 75.6 | 0.51 | -0.69 | -0.18 |
| 23 | 79.2 | 0.52 | -0.72 | -0.20 |
| 24 | 82.8 | 0.52 | -0.75 | -0.23 |
| 25 | 86.4 | 0.53 | -0.79 | -0.26 |
| 26 | 90.0 | 0.49 | -0.82 | -0.33 |
| 27 | 93.6 | 0.48 | -0.85 | -0.37 |
| 28 | 97.2 | 0.49 | -0.88 | -0.39 |
| 29 | 100.8 | 0.48 | -0.92 | -0.44 |
| 30 | 104.4 | 0.49 | -0.95 | -0.46 |
| 31 | 108.0 | 0.52 | -0.98 | -0.46 |
| 32 | 111.6 | 0.56 | -1.01 | -0.45 |
| 33 | 115.2 | 0.55 | -1.05 | -0.50 |
| 34 | 118.8 | 0.56 | -1.08 | -0.52 |
| 35 | 122.4 | 0.59 | -1.11 | -0.52 |
| 36 | 126.0 | 0.60 | -1.15 | -0.55 |
| 37 | 129.6 | 0.64 | -1.18 | -0.54 |
| 38 | 133.2 | 0.63 | -1.21 | -0.58 |
| 39 | 136.8 | 0.63 | -1.24 | -0.61 |
| 40 | 140.4 | 0.52 | -1.28 | -0.76 |
| 41 | 144.0 | 0.39 | -1.31 | -0.92 |
| 42 | 147.6 | 0.28 | -1.34 | -1.06 |
| 43 | 151.2 | 0.15 | -1.37 | -1.22 |

2130+00, MSU St. 26

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.07 | -0.03 | 0.04 |
| 3 | 7.2 | 0.11 | -0.06 | 0.05 |
| 4 | 10.8 | 0.10 | -0.09 | 0.01 |
| 5 | 14.4 | 0.14 | -0.12 | 0.02 |
| 6 | 18.0 | 0.13 | -0.15 | -0.02 |
| 7 | 21.6 | 0.14 | -0.18 | -0.04 |
| 8 | 25.2 | 0.17 | -0.21 | -0.04 |
| 9 | 28.8 | 0.19 | -0.24 | -0.05 |
| 10 | 32.4 | 0.20 | -0.27 | -0.07 |
| 11 | 36.0 | 0.21 | -0.30 | -0.09 |
| 12 | 39.6 | 0.23 | -0.33 | -0.10 |
| 13 | 43.2 | 0.31 | -0.36 | -0.05 |
| 14 | 46.8 | 0.33 | -0.39 | -0.06 |
| 15 | 50.4 | 0.36 | -0.42 | -0.06 |
| 16 | 54.0 | 0.39 | -0.45 | -0.06 |
| 17 | 57.6 | 0.45 | -0.48 | -0.03 |
| 18 | 61.2 | 0.48 | -0.51 | -0.03 |
| 19 | 64.8 | 0.51 | -0.54 | -0.03 |
| 20 | 68.4 | 0.53 | -0.57 | -0.04 |
| 21 | 72.0 | 0.55 | -0.60 | -0.05 |
| 22 | 75.6 | 0.58 | -0.63 | -0.05 |
| 23 | 79.2 | 0.60 | -0.66 | -0.06 |
| 24 | 82.8 | 0.57 | -0.69 | -0.12 |
| 25 | 86.4 | 0.56 | -0.72 | -0.16 |
| 26 | 90.0 | 0.53 | -0.75 | -0.22 |
| 27 | 93.6 | 0.50 | -0.78 | -0.28 |
| 28 | 97.2 | 0.50 | -0.81 | -0.31 |
| 29 | 100.8 | 0.49 | -0.84 | -0.35 |
| 30 | 104.4 | 0.47 | -0.87 | -0.40 |
| 31 | 108.0 | 0.49 | -0.90 | -0.41 |
| 32 | 111.6 | 0.45 | -0.93 | -0.48 |
| 33 | 115.2 | 0.46 | -0.96 | -0.50 |
| 34 | 118.8 | 0.49 | -0.99 | -0.50 |
| 35 | 122.4 | 0.48 | -1.02 | -0.54 |
| 36 | 126.0 | 0.49 | -1.05 | -0.56 |
| 37 | 129.6 | 0.50 | -1.08 | -0.58 |
| 38 | 133.2 | 0.50 | -1.11 | -0.61 |
| 39 | 136.8 | 0.48 | -1.14 | -0.66 |
| 40 | 140.4 | 0.49 | -1.17 | -0.68 |
| 41 | 144.0 | 0.44 | -1.20 | -0.76 |
| 42 | 147.6 | 0.35 | -1.23 | -0.88 |

Table 43.1: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2260+00, MSU St. 1

| Point | Pavement Width (X) | Width Feet | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|---|
| 43 | 151.2 | -12.6 | | | |
| 42 | 147.6 | -12.3 | 0.36 | -1.79 | -1.43 |
| 41 | 144.0 | -12.0 | 0.38 | -1.75 | -1.37 |
| 40 | 140.4 | -11.7 | 0.42 | -1.70 | -1.28 |
| 39 | 136.8 | -11.4 | 0.48 | -1.66 | -1.18 |
| 38 | 133.2 | -11.1 | 0.43 | -1.61 | -1.18 |
| 37 | 129.6 | -10.8 | 0.42 | -1.57 | -1.15 |
| 36 | 126.0 | -10.5 | 0.40 | -1.53 | -1.13 |
| 35 | 122.4 | -10.2 | 0.40 | -1.48 | -1.08 |
| 34 | 118.8 | -9.9 | 0.37 | -1.44 | -1.07 |
| 33 | 115.2 | -9.6 | 0.36 | -1.40 | -1.04 |
| 32 | 111.6 | -9.3 | 0.32 | -1.35 | -1.03 |
| 31 | 108.0 | -9.0 | 0.31 | -1.31 | -1.00 |
| 30 | 104.4 | -8.7 | 0.32 | -1.27 | -0.95 |
| 29 | 100.8 | -8.4 | 0.30 | -1.22 | -0.92 |
| 28 | 97.2 | -8.1 | 0.29 | -1.18 | -0.89 |
| 27 | 93.6 | -7.8 | 0.29 | -1.13 | -0.84 |
| 26 | 90.0 | -7.5 | 0.27 | -1.09 | -0.82 |
| 25 | 86.4 | -7.2 | 0.25 | -1.05 | -0.80 |
| 24 | 82.8 | -6.9 | 0.23 | -1.00 | -0.77 |
| 23 | 79.2 | -6.6 | 0.22 | -0.96 | -0.74 |
| 22 | 75.6 | -6.3 | 0.21 | -0.92 | -0.71 |
| 21 | 72.0 | -6.0 | 0.20 | -0.87 | -0.67 |
| 20 | 68.4 | -5.7 | 0.17 | -0.83 | -0.66 |
| 19 | 64.8 | -5.4 | 0.15 | -0.79 | -0.64 |
| 18 | 61.2 | -5.1 | 0.14 | -0.74 | -0.60 |
| 17 | 57.6 | -4.8 | 0.12 | -0.70 | -0.58 |
| 16 | 54.0 | -4.5 | 0.11 | -0.65 | -0.54 |
| 15 | 50.4 | -4.2 | 0.10 | -0.61 | -0.51 |
| 14 | 46.8 | -3.9 | 0.10 | -0.57 | -0.47 |
| 13 | 43.2 | -3.6 | 0.09 | -0.52 | -0.43 |
| 12 | 39.6 | -3.3 | 0.08 | -0.48 | -0.40 |
| 11 | 36.0 | -3.0 | 0.07 | -0.44 | -0.37 |
| 10 | 32.4 | -2.7 | 0.06 | -0.39 | -0.33 |
| 9 | 28.8 | -2.4 | 0.02 | -0.35 | -0.33 |
| 8 | 25.2 | -2.1 | 0.04 | -0.31 | -0.27 |
| 7 | 21.6 | -1.8 | 0.04 | -0.26 | -0.22 |
| 6 | 18.0 | -1.5 | 0.03 | -0.22 | -0.19 |
| 5 | 14.4 | -1.2 | 0.03 | -0.17 | -0.14 |
| 4 | 10.8 | -0.9 | 0.05 | -0.13 | -0.08 |
| 3 | 7.2 | -0.6 | 0.04 | -0.09 | -0.05 |
| 2 | 3.6 | -0.3 | 0.04 | -0.04 | -0.00 |
| 1 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |

2254+00, MSU St. 2

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 42 | 147.6 | 0.27 | -1.90 | -1.63 |
| 41 | 144.0 | 0.28 | -1.85 | -1.57 |
| 40 | 140.4 | 0.33 | -1.81 | -1.48 |
| 39 | 136.8 | 0.30 | -1.76 | -1.46 |
| 38 | 133.2 | 0.27 | -1.72 | -1.45 |
| 37 | 129.6 | 0.23 | -1.67 | -1.44 |
| 36 | 126.0 | 0.23 | -1.62 | -1.39 |
| 35 | 122.4 | 0.24 | -1.58 | -1.34 |
| 34 | 118.8 | 0.22 | -1.53 | -1.31 |
| 33 | 115.2 | 0.26 | -1.48 | -1.22 |
| 32 | 111.6 | 0.27 | -1.44 | -1.17 |
| 31 | 108.0 | 0.26 | -1.39 | -1.13 |
| 30 | 104.4 | 0.29 | -1.34 | -1.05 |
| 29 | 100.8 | 0.28 | -1.30 | -1.02 |
| 28 | 97.2 | 0.25 | -1.25 | -1.00 |
| 27 | 93.6 | 0.26 | -1.21 | -0.95 |
| 26 | 90.0 | 0.24 | -1.16 | -0.92 |
| 25 | 86.4 | 0.21 | -1.11 | -0.90 |
| 24 | 82.8 | 0.21 | -1.07 | -0.86 |
| 23 | 79.2 | 0.20 | -1.02 | -0.82 |
| 22 | 75.6 | 0.19 | -0.97 | -0.78 |
| 21 | 72.0 | 0.18 | -0.93 | -0.75 |
| 20 | 68.4 | 0.17 | -0.88 | -0.71 |
| 19 | 64.8 | 0.17 | -0.83 | -0.66 |
| 18 | 61.2 | 0.15 | -0.79 | -0.64 |
| 17 | 57.6 | 0.14 | -0.74 | -0.60 |
| 16 | 54.0 | 0.12 | -0.70 | -0.58 |
| 15 | 50.4 | 0.09 | -0.65 | -0.56 |
| 14 | 46.8 | 0.06 | -0.60 | -0.54 |
| 13 | 43.2 | 0.07 | -0.56 | -0.49 |
| 12 | 39.6 | 0.06 | -0.51 | -0.45 |
| 11 | 36.0 | 0.08 | -0.46 | -0.38 |
| 10 | 32.4 | 0.06 | -0.42 | -0.36 |
| 9 | 28.8 | 0.03 | -0.37 | -0.34 |
| 8 | 25.2 | 0.03 | -0.32 | -0.29 |
| 7 | 21.6 | 0.03 | -0.28 | -0.25 |
| 6 | 18.0 | 0.01 | -0.23 | -0.22 |
| 5 | 14.4 | 0.03 | -0.19 | -0.16 |
| 4 | 10.8 | 0.04 | -0.14 | -0.10 |
| 3 | 7.2 | 0.03 | -0.09 | -0.06 |
| 2 | 3.6 | 0.05 | -0.05 | 0.00 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.2: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2250+00, MSU St. 3

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.18 | -1.83 | -2.01 |
| 42 | 147.6 | -0.15 | -1.79 | -1.94 |
| 41 | 144.0 | -0.13 | -1.75 | -1.88 |
| 40 | 140.4 | -0.10 | -1.70 | -1.80 |
| 39 | 136.8 | -0.11 | -1.66 | -1.77 |
| 38 | 133.2 | -0.10 | -1.61 | -1.71 |
| 37 | 129.6 | -0.10 | -1.57 | -1.67 |
| 36 | 126.0 | -0.10 | -1.53 | -1.63 |
| 35 | 122.4 | -0.08 | -1.48 | -1.56 |
| 34 | 118.8 | -0.07 | -1.44 | -1.51 |
| 33 | 115.2 | -0.06 | -1.40 | -1.46 |
| 32 | 111.6 | -0.02 | -1.35 | -1.37 |
| 31 | 108.0 | 0.00 | -1.31 | -1.31 |
| 30 | 104.4 | 0.03 | -1.27 | -1.24 |
| 29 | 100.8 | 0.05 | -1.22 | -1.17 |
| 28 | 97.2 | 0.04 | -1.18 | -1.14 |
| 27 | 93.6 | 0.03 | -1.13 | -1.10 |
| 26 | 90.0 | 0.04 | -1.09 | -1.05 |
| 25 | 86.4 | 0.03 | -1.05 | -1.02 |
| 24 | 82.8 | 0.03 | -1.00 | -0.97 |
| 23 | 79.2 | 0.02 | -0.96 | -0.94 |
| 22 | 75.6 | 0.01 | -0.92 | -0.91 |
| 21 | 72.0 | -0.01 | -0.87 | -0.88 |
| 20 | 68.4 | -0.05 | -0.83 | -0.88 |
| 19 | 64.8 | -0.01 | -0.79 | -0.80 |
| 18 | 61.2 | 0.02 | -0.74 | -0.72 |
| 17 | 57.6 | 0.00 | -0.70 | -0.70 |
| 16 | 54.0 | -0.03 | -0.65 | -0.68 |
| 15 | 50.4 | -0.01 | -0.61 | -0.62 |
| 14 | 46.8 | -0.05 | -0.57 | -0.62 |
| 13 | 43.2 | -0.04 | -0.52 | -0.56 |
| 12 | 39.6 | 0.00 | -0.48 | -0.48 |
| 11 | 36.0 | -0.01 | -0.44 | -0.45 |
| 10 | 32.4 | -0.02 | -0.39 | -0.41 |
| 9 | 28.8 | 0.00 | -0.35 | -0.35 |
| 8 | 25.2 | -0.02 | -0.31 | -0.33 |
| 7 | 21.6 | -0.03 | -0.26 | -0.29 |
| 6 | 18.0 | -0.01 | -0.22 | -0.23 |
| 5 | 14.4 | 0.00 | -0.17 | -0.17 |
| 4 | 10.8 | 0.00 | -0.13 | -0.13 |
| 3 | 7.2 | 0.02 | -0.09 | -0.07 |
| 2 | 3.6 | 0.01 | -0.04 | -0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2244+00, MSU St. 4

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.19 | -2.18 | -2.37 |
| 42 | 147.6 | -0.08 | -2.12 | -2.20 |
| 41 | 144.0 | -0.01 | -2.07 | -2.08 |
| 40 | 140.4 | -0.07 | -2.02 | -2.09 |
| 39 | 136.8 | -0.06 | -1.97 | -2.03 |
| 38 | 133.2 | -0.07 | -1.92 | -1.99 |
| 37 | 129.6 | -0.07 | -1.87 | -1.94 |
| 36 | 126.0 | -0.04 | -1.81 | -1.85 |
| 35 | 122.4 | -0.04 | -1.76 | -1.80 |
| 34 | 118.8 | -0.04 | -1.71 | -1.75 |
| 33 | 115.2 | -0.03 | -1.66 | -1.69 |
| 32 | 111.6 | 0.00 | -1.61 | -1.61 |
| 31 | 108.0 | 0.01 | -1.55 | -1.54 |
| 30 | 104.4 | -0.02 | -1.50 | -1.52 |
| 29 | 100.8 | 0.01 | -1.45 | -1.44 |
| 28 | 97.2 | 0.00 | -1.40 | -1.40 |
| 27 | 93.6 | 0.02 | -1.35 | -1.33 |
| 26 | 90.0 | 0.03 | -1.30 | -1.27 |
| 25 | 86.4 | 0.02 | -1.24 | -1.22 |
| 24 | 82.8 | 0.01 | -1.19 | -1.18 |
| 23 | 79.2 | 0.02 | -1.14 | -1.12 |
| 22 | 75.6 | 0.03 | -1.09 | -1.06 |
| 21 | 72.0 | -0.01 | -1.04 | -1.05 |
| 20 | 68.4 | -0.01 | -0.98 | -0.99 |
| 19 | 64.8 | 0.00 | -0.93 | -0.93 |
| 18 | 61.2 | -0.04 | -0.88 | -0.92 |
| 17 | 57.6 | -0.03 | -0.83 | -0.86 |
| 16 | 54.0 | -0.03 | -0.78 | -0.81 |
| 15 | 50.4 | -0.05 | -0.73 | -0.78 |
| 14 | 46.8 | -0.05 | -0.67 | -0.72 |
| 13 | 43.2 | -0.04 | -0.62 | -0.66 |
| 12 | 39.6 | -0.03 | -0.57 | -0.60 |
| 11 | 36.0 | -0.02 | -0.52 | -0.54 |
| 10 | 32.4 | -0.02 | -0.47 | -0.49 |
| 9 | 28.8 | -0.03 | -0.41 | -0.44 |
| 8 | 25.2 | -0.03 | -0.36 | -0.39 |
| 7 | 21.6 | -0.05 | -0.31 | -0.36 |
| 6 | 18.0 | -0.06 | -0.26 | -0.32 |
| 5 | 14.4 | -0.01 | -0.21 | -0.22 |
| 4 | 10.8 | 0.00 | -0.16 | -0.16 |
| 3 | 7.2 | -0.01 | -0.10 | -0.11 |
| 2 | 3.6 | 0.02 | -0.05 | -0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.3: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2238+00, MSU St. 5

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.19 | -1.72 | -1.91 |
| 42 | 147.6 | -0.13 | -1.68 | -1.81 |
| 41 | 144.0 | -0.13 | -1.64 | -1.77 |
| 40 | 140.4 | -0.14 | -1.60 | -1.74 |
| 39 | 136.8 | -0.12 | -1.55 | -1.67 |
| 38 | 133.2 | -0.13 | -1.51 | -1.64 |
| 37 | 129.6 | -0.14 | -1.47 | -1.61 |
| 36 | 126.0 | -0.12 | -1.43 | -1.55 |
| 35 | 122.4 | -0.10 | -1.39 | -1.49 |
| 34 | 118.8 | -0.11 | -1.35 | -1.46 |
| 33 | 115.2 | -0.09 | -1.31 | -1.40 |
| 32 | 111.6 | -1.00 | -1.27 | -2.27 |
| 31 | 108.0 | -0.08 | -1.23 | -1.31 |
| 30 | 104.4 | -0.06 | -1.19 | -1.25 |
| 29 | 100.8 | -0.03 | -1.15 | -1.18 |
| 28 | 97.2 | -0.03 | -1.10 | -1.13 |
| 27 | 93.6 | -0.01 | -1.06 | -1.07 |
| 26 | 90.0 | -0.01 | -1.02 | -1.03 |
| 25 | 86.4 | -0.02 | -0.98 | -1.00 |
| 24 | 82.8 | 0.00 | -0.94 | -0.94 |
| 23 | 79.2 | 0.01 | -0.90 | -0.89 |
| 22 | 75.6 | 0.01 | -0.86 | -0.85 |
| 21 | 72.0 | 0.03 | -0.82 | -0.79 |
| 20 | 68.4 | 0.02 | -0.78 | -0.76 |
| 19 | 64.8 | 0.02 | -0.74 | -0.72 |
| 18 | 61.2 | 0.03 | -0.70 | -0.67 |
| 17 | 57.6 | 0.04 | -0.65 | -0.61 |
| 16 | 54.0 | 0.03 | -0.61 | -0.58 |
| 15 | 50.4 | 0.04 | -0.57 | -0.53 |
| 14 | 46.8 | 0.03 | -0.53 | -0.50 |
| 13 | 43.2 | 0.02 | -0.49 | -0.47 |
| 12 | 39.6 | 0.04 | -0.45 | -0.41 |
| 11 | 36.0 | 0.06 | -0.41 | -0.35 |
| 10 | 32.4 | 0.05 | -0.37 | -0.32 |
| 9 | 28.8 | 0.06 | -0.33 | -0.27 |
| 8 | 25.2 | 0.05 | -0.29 | -0.24 |
| 7 | 21.6 | 0.03 | -0.25 | -0.22 |
| 6 | 18.0 | 0.03 | -0.20 | -0.17 |
| 5 | 14.4 | 0.03 | -0.16 | -0.13 |
| 4 | 10.8 | 0.03 | -0.12 | -0.09 |
| 3 | 7.2 | 0.03 | -0.08 | -0.05 |
| 2 | 3.6 | 0.04 | -0.04 | -0.00 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2232+00, MSU St. 6

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.09 | -1.83 | -1.74 |
| 42 | 147.6 | 0.00 | -1.79 | -1.79 |
| 41 | 144.0 | 0.04 | -1.75 | -1.71 |
| 40 | 140.4 | 0.00 | -1.70 | -1.70 |
| 39 | 136.8 | 0.00 | -1.66 | -1.66 |
| 38 | 133.2 | 0.00 | -1.61 | -1.61 |
| 37 | 129.6 | -0.01 | -1.57 | -1.58 |
| 36 | 126.0 | 0.00 | -1.53 | -1.53 |
| 35 | 122.4 | 0.02 | -1.48 | -1.46 |
| 34 | 118.8 | 0.01 | -1.44 | -1.43 |
| 33 | 115.2 | 0.04 | -1.40 | -1.36 |
| 32 | 111.6 | 0.05 | -1.35 | -1.30 |
| 31 | 108.0 | 0.05 | -1.31 | -1.26 |
| 30 | 104.4 | 0.07 | -1.27 | -1.20 |
| 29 | 100.8 | 0.08 | -1.22 | -1.14 |
| 28 | 97.2 | 0.09 | -1.18 | -1.09 |
| 27 | 93.6 | 0.10 | -1.13 | -1.03 |
| 26 | 90.0 | 0.08 | -1.09 | -1.01 |
| 25 | 86.4 | 0.07 | -1.05 | -0.98 |
| 24 | 82.8 | 0.08 | -1.00 | -0.92 |
| 23 | 79.2 | 0.06 | -0.96 | -0.90 |
| 22 | 75.6 | 0.03 | -0.92 | -0.89 |
| 21 | 72.0 | 0.03 | -0.87 | -0.84 |
| 20 | 68.4 | 0.01 | -0.83 | -0.82 |
| 19 | 64.8 | 0.00 | -0.79 | -0.79 |
| 18 | 61.2 | 0.00 | -0.74 | -0.74 |
| 17 | 57.6 | -0.02 | -0.70 | -0.72 |
| 16 | 54.0 | 0.03 | -0.65 | -0.62 |
| 15 | 50.4 | -0.03 | -0.61 | -0.64 |
| 14 | 46.8 | -0.04 | -0.57 | -0.61 |
| 13 | 43.2 | -0.01 | -0.52 | -0.53 |
| 12 | 39.6 | -0.02 | -0.48 | -0.50 |
| 11 | 36.0 | 0.00 | -0.44 | -0.44 |
| 10 | 32.4 | 0.01 | -0.39 | -0.38 |
| 9 | 28.8 | -0.01 | -0.35 | -0.36 |
| 8 | 25.2 | -0.02 | -0.31 | -0.33 |
| 7 | 21.6 | -0.01 | -0.26 | -0.27 |
| 6 | 18.0 | -0.01 | -0.22 | -0.23 |
| 5 | 14.4 | -0.01 | -0.17 | -0.18 |
| 4 | 10.8 | 0.01 | -0.13 | -0.12 |
| 3 | 7.2 | 0.02 | -0.09 | -0.07 |
| 2 | 3.6 | 0.05 | -0.04 | 0.01 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.4: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2226+00, MSU St. 7

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.11 | -1.72 | -1.83 |
| 42 | 147.6 | 0.00 | -1.68 | -1.68 |
| 41 | 144.0 | -0.03 | -1.64 | -1.67 |
| 40 | 140.4 | -0.04 | -1.60 | -1.64 |
| 39 | 136.8 | -0.02 | -1.55 | -1.57 |
| 38 | 133.2 | -0.03 | -1.51 | -1.54 |
| 37 | 129.6 | -0.05 | -1.47 | -1.52 |
| 36 | 126.0 | -0.02 | -1.43 | -1.45 |
| 35 | 122.4 | 0.00 | -1.39 | -1.39 |
| 34 | 118.8 | 0.00 | -1.35 | -1.35 |
| 33 | 115.2 | 0.04 | -1.31 | -1.27 |
| 32 | 111.6 | 0.03 | -1.27 | -1.24 |
| 31 | 108.0 | 0.00 | -1.23 | -1.23 |
| 30 | 104.4 | 0.02 | -1.19 | -1.17 |
| 29 | 100.8 | 0.01 | -1.15 | -1.14 |
| 28 | 97.2 | -0.03 | -1.10 | -1.13 |
| 27 | 93.6 | -0.03 | -1.06 | -1.09 |
| 26 | 90.0 | -0.03 | -1.02 | -1.05 |
| 25 | 86.4 | -0.04 | -0.98 | -1.02 |
| 24 | 82.8 | -0.04 | -0.94 | -0.98 |
| 23 | 79.2 | -0.07 | -0.90 | -0.97 |
| 22 | 75.6 | -0.06 | -0.86 | -0.92 |
| 21 | 72.0 | -0.05 | -0.82 | -0.87 |
| 20 | 68.4 | -0.05 | -0.78 | -0.83 |
| 19 | 64.8 | -0.10 | -0.74 | -0.84 |
| 18 | 61.2 | -0.11 | -0.70 | -0.81 |
| 17 | 57.6 | -0.13 | -0.65 | -0.78 |
| 16 | 54.0 | -0.15 | -0.61 | -0.76 |
| 15 | 50.4 | -0.16 | -0.57 | -0.73 |
| 14 | 46.8 | -0.16 | -0.53 | -0.69 |
| 13 | 43.2 | -0.13 | -0.49 | -0.62 |
| 12 | 39.6 | -0.14 | -0.45 | -0.59 |
| 11 | 36.0 | -0.14 | -0.41 | -0.55 |
| 10 | 32.4 | -0.13 | -0.37 | -0.50 |
| 9 | 28.8 | -0.13 | -0.33 | -0.46 |
| 8 | 25.2 | -0.11 | -0.29 | -0.40 |
| 7 | 21.6 | -0.12 | -0.25 | -0.37 |
| 6 | 18.0 | -0.11 | -0.20 | -0.31 |
| 5 | 14.4 | -0.10 | -0.16 | -0.26 |
| 4 | 10.8 | -0.08 | -0.12 | -0.20 |
| 3 | 7.2 | -0.04 | -0.08 | -0.12 |
| 2 | 3.6 | 0.01 | -0.04 | -0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2220+00, MSU St. 8

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.09 | -1.95 | -2.04 |
| 42 | 147.6 | 0.00 | -1.90 | -1.90 |
| 41 | 144.0 | 0.05 | -1.85 | -1.80 |
| 40 | 140.4 | 0.05 | -1.81 | -1.76 |
| 39 | 136.8 | 0.03 | -1.76 | -1.73 |
| 38 | 133.2 | 0.04 | -1.72 | -1.68 |
| 37 | 129.6 | 0.07 | -1.67 | -1.60 |
| 36 | 126.0 | 0.05 | -1.62 | -1.57 |
| 35 | 122.4 | 0.05 | -1.58 | -1.53 |
| 34 | 118.8 | 0.03 | -1.53 | -1.50 |
| 33 | 115.2 | -0.01 | -1.48 | -1.49 |
| 32 | 111.6 | 0.00 | -1.44 | -1.44 |
| 31 | 108.0 | 0.00 | -1.39 | -1.39 |
| 30 | 104.4 | 0.01 | -1.34 | -1.33 |
| 29 | 100.8 | 0.01 | -1.30 | -1.29 |
| 28 | 97.2 | 0.00 | -1.25 | -1.25 |
| 27 | 93.6 | 0.00 | -1.21 | -1.21 |
| 26 | 90.0 | 0.00 | -1.16 | -1.16 |
| 25 | 86.4 | -0.02 | -1.11 | -1.13 |
| 24 | 82.8 | 0.00 | -1.07 | -1.07 |
| 23 | 79.2 | 0.00 | -1.02 | -1.02 |
| 22 | 75.6 | -0.07 | -0.97 | -1.04 |
| 21 | 72.0 | -0.06 | -0.93 | -0.99 |
| 20 | 68.4 | -0.08 | -0.88 | -0.96 |
| 19 | 64.8 | -0.08 | -0.83 | -0.91 |
| 18 | 61.2 | -0.06 | -0.79 | -0.85 |
| 17 | 57.6 | -0.08 | -0.74 | -0.82 |
| 16 | 54.0 | -0.10 | -0.70 | -0.80 |
| 15 | 50.4 | -0.07 | -0.65 | -0.72 |
| 14 | 46.8 | -0.09 | -0.60 | -0.69 |
| 13 | 43.2 | -0.09 | -0.56 | -0.65 |
| 12 | 39.6 | -0.07 | -0.51 | -0.58 |
| 11 | 36.0 | -0.08 | -0.46 | -0.54 |
| 10 | 32.4 | -1.00 | -0.42 | -1.42 |
| 9 | 28.8 | -0.11 | -0.37 | -0.48 |
| 8 | 25.2 | -0.10 | -0.32 | -0.42 |
| 7 | 21.6 | -0.10 | -0.28 | -0.38 |
| 6 | 18.0 | -0.09 | -0.23 | -0.32 |
| 5 | 14.4 | -0.05 | -0.19 | -0.24 |
| 4 | 10.8 | -0.03 | -0.14 | -0.17 |
| 3 | 7.2 | -0.04 | -0.09 | -0.13 |
| 2 | 3.6 | -0.07 | -0.05 | -0.12 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.5: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2214+00, MSU St. 9

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.04 | -1.95 | -1.91 |
| 42 | 147.6 | -0.01 | -1.90 | -1.91 |
| 41 | 144.0 | -0.04 | -1.85 | -1.89 |
| 40 | 140.4 | -0.03 | -1.81 | -1.84 |
| 39 | 136.8 | -0.02 | -1.76 | -1.78 |
| 38 | 133.2 | 0.00 | -1.72 | -1.72 |
| 37 | 129.6 | -0.02 | -1.67 | -1.69 |
| 36 | 126.0 | 0.00 | -1.62 | -1.62 |
| 35 | 122.4 | 0.04 | -1.58 | -1.54 |
| 34 | 118.8 | 0.05 | -1.53 | -1.48 |
| 33 | 115.2 | 0.06 | -1.48 | -1.42 |
| 32 | 111.6 | 0.08 | -1.44 | -1.36 |
| 31 | 108.0 | 0.10 | -1.39 | -1.29 |
| 30 | 104.4 | 0.09 | -1.34 | -1.25 |
| 29 | 100.8 | 0.09 | -1.30 | -1.21 |
| 28 | 97.2 | 0.08 | -1.25 | -1.17 |
| 27 | 93.6 | 0.09 | -1.21 | -1.12 |
| 26 | 90.0 | 0.08 | -1.16 | -1.08 |
| 25 | 86.4 | 0.07 | -1.11 | -1.04 |
| 24 | 82.8 | 0.09 | -1.07 | -0.98 |
| 23 | 79.2 | 0.10 | -1.02 | -0.92 |
| 22 | 75.6 | 0.08 | -0.97 | -0.89 |
| 21 | 72.0 | 0.10 | -0.93 | -0.83 |
| 20 | 68.4 | 0.10 | -0.88 | -0.78 |
| 19 | 64.8 | 0.07 | -0.83 | -0.76 |
| 18 | 61.2 | 0.08 | -0.79 | -0.71 |
| 17 | 57.6 | 0.06 | -0.74 | -0.68 |
| 16 | 54.0 | 0.07 | -0.70 | -0.63 |
| 15 | 50.4 | 0.10 | -0.65 | -0.55 |
| 14 | 46.8 | 0.08 | -0.60 | -0.52 |
| 13 | 43.2 | 0.09 | -0.56 | -0.47 |
| 12 | 39.6 | 0.10 | -0.51 | -0.41 |
| 11 | 36.0 | 0.10 | -0.46 | -0.36 |
| 10 | 32.4 | 0.09 | -0.42 | -0.33 |
| 9 | 28.8 | 0.09 | -0.37 | -0.28 |
| 8 | 25.2 | 0.08 | -0.32 | -0.24 |
| 7 | 21.6 | 0.08 | -0.28 | -0.20 |
| 6 | 18.0 | 0.08 | -0.23 | -0.15 |
| 5 | 14.4 | 0.09 | -0.19 | -0.10 |
| 4 | 10.8 | 0.10 | -0.14 | -0.04 |
| 3 | 7.2 | 0.03 | -0.09 | -0.06 |
| 2 | 3.6 | 0.04 | -0.05 | -0.01 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2208+00, MSU St. 10

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.14 | -2.06 | -2.20 |
| 42 | 147.6 | -0.18 | -2.01 | -2.19 |
| 41 | 144.0 | -0.16 | -1.96 | -2.12 |
| 40 | 140.4 | -0.20 | -1.91 | -2.11 |
| 39 | 136.8 | -0.21 | -1.87 | -2.08 |
| 38 | 133.2 | -0.22 | -1.82 | -2.04 |
| 37 | 129.6 | -0.21 | -1.77 | -1.98 |
| 36 | 126.0 | -0.22 | -1.72 | -1.94 |
| 35 | 122.4 | -0.20 | -1.67 | -1.87 |
| 34 | 118.8 | -0.20 | -1.62 | -1.82 |
| 33 | 115.2 | -0.19 | -1.57 | -1.76 |
| 32 | 111.6 | -0.20 | -1.52 | -1.72 |
| 31 | 108.0 | -0.19 | -1.47 | -1.66 |
| 30 | 104.4 | -0.17 | -1.42 | -1.59 |
| 29 | 100.8 | -0.18 | -1.37 | -1.55 |
| 28 | 97.2 | -0.17 | -1.33 | -1.50 |
| 27 | 93.6 | -0.14 | -1.28 | -1.42 |
| 26 | 90.0 | -0.17 | -1.23 | -1.40 |
| 25 | 86.4 | -0.18 | -1.18 | -1.36 |
| 24 | 82.8 | -0.20 | -1.13 | -1.33 |
| 23 | 79.2 | -0.22 | -1.08 | -1.30 |
| 22 | 75.6 | -0.21 | -1.03 | -1.24 |
| 21 | 72.0 | -0.20 | -0.98 | -1.18 |
| 20 | 68.4 | -0.20 | -0.93 | -1.13 |
| 19 | 64.8 | -0.22 | -0.88 | -1.10 |
| 18 | 61.2 | -0.20 | -0.83 | -1.03 |
| 17 | 57.6 | -0.23 | -0.79 | -1.02 |
| 16 | 54.0 | -0.22 | -0.74 | -0.96 |
| 15 | 50.4 | -0.21 | -0.69 | -0.90 |
| 14 | 46.8 | -0.18 | -0.64 | -0.82 |
| 13 | 43.2 | -0.20 | -0.59 | -0.79 |
| 12 | 39.6 | -0.19 | -0.54 | -0.73 |
| 11 | 36.0 | -0.18 | -0.49 | -0.67 |
| 10 | 32.4 | -0.18 | -0.44 | -0.62 |
| 9 | 28.8 | -0.16 | -0.39 | -0.55 |
| 8 | 25.2 | -0.13 | -0.34 | -0.47 |
| 7 | 21.6 | -0.11 | -0.29 | -0.40 |
| 6 | 18.0 | -0.10 | -0.25 | -0.35 |
| 5 | 14.4 | -0.06 | -0.20 | -0.26 |
| 4 | 10.8 | -0.03 | -0.15 | -0.18 |
| 3 | 7.2 | -0.03 | -0.10 | -0.13 |
| 2 | 3.6 | -0.04 | -0.05 | -0.09 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.6: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2200+00, MSU St. 11

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 42 | 147.6 | -0.09 | -1.57 | -1.66 |
| 41 | 144.0 | -0.15 | -1.53 | -1.68 |
| 40 | 140.4 | -0.17 | -1.49 | -1.66 |
| 39 | 136.8 | -0.18 | -1.45 | -1.63 |
| 38 | 133.2 | -0.18 | -1.41 | -1.59 |
| 37 | 129.6 | -0.17 | -1.37 | -1.54 |
| 36 | 126.0 | -0.15 | -1.34 | -1.49 |
| 35 | 122.4 | -0.12 | -1.30 | -1.42 |
| 34 | 118.8 | -0.12 | -1.26 | -1.38 |
| 33 | 115.2 | -0.10 | -1.22 | -1.32 |
| 32 | 111.6 | -0.09 | -1.18 | -1.27 |
| 31 | 108.0 | -0.08 | -1.15 | -1.23 |
| 30 | 104.4 | -0.05 | -1.11 | -1.16 |
| 29 | 100.8 | -0.03 | -1.07 | -1.10 |
| 28 | 97.2 | -0.02 | -1.03 | -1.05 |
| 27 | 93.6 | 0.00 | -0.99 | -0.99 |
| 26 | 90.0 | 0.00 | -0.95 | -0.95 |
| 25 | 86.4 | 0.00 | -0.92 | -0.92 |
| 24 | 82.8 | 0.02 | -0.88 | -0.86 |
| 23 | 79.2 | 0.02 | -0.84 | -0.82 |
| 22 | 75.6 | 0.00 | -0.80 | -0.80 |
| 21 | 72.0 | 0.00 | -0.76 | -0.76 |
| 20 | 68.4 | -0.01 | -0.73 | -0.74 |
| 19 | 64.8 | -0.05 | -0.69 | -0.74 |
| 18 | 61.2 | 0.00 | -0.65 | -0.65 |
| 17 | 57.6 | -0.03 | -0.61 | -0.64 |
| 16 | 54.0 | -0.07 | -0.57 | -0.64 |
| 15 | 50.4 | -0.01 | -0.53 | -0.54 |
| 14 | 46.8 | -0.02 | -0.50 | -0.52 |
| 13 | 43.2 | -0.04 | -0.46 | -0.50 |
| 12 | 39.6 | -0.01 | -0.42 | -0.43 |
| 11 | 36.0 | -0.01 | -0.38 | -0.39 |
| 10 | 32.4 | -0.01 | -0.34 | -0.35 |
| 9 | 28.8 | 0.01 | -0.31 | -0.30 |
| 8 | 25.2 | -0.03 | -0.27 | -0.30 |
| 7 | 21.6 | -0.02 | -0.23 | -0.25 |
| 6 | 18.0 | 0.00 | -0.19 | -0.19 |
| 5 | 14.4 | 0.00 | -0.15 | -0.15 |
| 4 | 10.8 | 0.03 | -0.11 | -0.08 |
| 3 | 7.2 | 0.00 | -0.08 | -0.08 |
| 2 | 3.6 | -0.10 | -0.04 | -0.14 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2196+00, MSU St. 12

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.31 | -1.72 | -1.41 |
| 42 | 147.6 | 0.37 | -1.68 | -1.31 |
| 41 | 144.0 | 0.26 | -1.64 | -1.38 |
| 40 | 140.4 | 0.25 | -1.60 | -1.35 |
| 39 | 136.8 | 0.21 | -1.55 | -1.34 |
| 38 | 133.2 | 0.21 | -1.51 | -1.30 |
| 37 | 129.6 | 0.22 | -1.47 | -1.25 |
| 36 | 126.0 | 0.19 | -1.43 | -1.24 |
| 35 | 122.4 | 0.20 | -1.39 | -1.19 |
| 34 | 118.8 | 0.20 | -1.35 | -1.15 |
| 33 | 115.2 | 0.20 | -1.31 | -1.11 |
| 32 | 111.6 | 0.24 | -1.27 | -1.03 |
| 31 | 108.0 | 0.25 | -1.23 | -0.98 |
| 30 | 104.4 | 0.25 | -1.19 | -0.94 |
| 29 | 100.8 | 0.26 | -1.15 | -0.89 |
| 28 | 97.2 | 0.23 | -1.10 | -0.87 |
| 27 | 93.6 | 0.23 | -1.06 | -0.83 |
| 26 | 90.0 | 0.24 | -1.02 | -0.78 |
| 25 | 86.4 | 0.21 | -0.98 | -0.77 |
| 24 | 82.8 | 0.21 | -0.94 | -0.73 |
| 23 | 79.2 | 0.20 | -0.90 | -0.70 |
| 22 | 75.6 | 0.14 | -0.86 | -0.72 |
| 21 | 72.0 | 0.14 | -0.82 | -0.68 |
| 20 | 68.4 | 0.12 | -0.78 | -0.66 |
| 19 | 64.8 | 0.09 | -0.74 | -0.65 |
| 18 | 61.2 | 0.09 | -0.70 | -0.61 |
| 17 | 57.6 | 0.07 | -0.65 | -0.58 |
| 16 | 54.0 | 0.03 | -0.61 | -0.58 |
| 15 | 50.4 | 0.02 | -0.57 | -0.55 |
| 14 | 46.8 | 0.02 | -0.53 | -0.51 |
| 13 | 43.2 | 0.01 | -0.49 | -0.48 |
| 12 | 39.6 | 0.03 | -0.45 | -0.42 |
| 11 | 36.0 | 0.02 | -0.41 | -0.39 |
| 10 | 32.4 | 0.00 | -0.37 | -0.37 |
| 9 | 28.8 | 0.00 | -0.33 | -0.33 |
| 8 | 25.2 | -0.03 | -0.29 | -0.32 |
| 7 | 21.6 | -0.02 | -0.25 | -0.27 |
| 6 | 18.0 | 0.00 | -0.20 | -0.20 |
| 5 | 14.4 | -0.04 | -0.16 | -0.20 |
| 4 | 10.8 | -0.05 | -0.12 | -0.17 |
| 3 | 7.2 | -0.04 | -0.08 | -0.12 |
| 2 | 3.6 | -0.02 | -0.04 | -0.06 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.7: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2192+00, MSU St. 13

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.04 | -1.95 | -1.99 |
| 42 | 147.6 | -0.01 | -1.90 | -1.91 |
| 41 | 144.0 | 0.00 | -1.85 | -1.85 |
| 40 | 140.4 | 0.07 | -1.81 | -1.74 |
| 39 | 136.8 | 0.04 | -1.76 | -1.72 |
| 38 | 133.2 | 0.05 | -1.72 | -1.67 |
| 37 | 129.6 | 0.03 | -1.67 | -1.64 |
| 36 | 126.0 | -0.03 | -1.62 | -1.65 |
| 35 | 122.4 | -0.07 | -1.58 | -1.65 |
| 34 | 118.8 | 0.00 | -1.53 | -1.53 |
| 33 | 115.2 | -0.02 | -1.48 | -1.50 |
| 32 | 111.6 | -0.01 | -1.44 | -1.45 |
| 31 | 108.0 | 0.01 | -1.39 | -1.38 |
| 30 | 104.4 | 0.03 | -1.34 | -1.31 |
| 29 | 100.8 | 0.05 | -1.30 | -1.25 |
| 28 | 97.2 | 0.07 | -1.25 | -1.18 |
| 27 | 93.6 | 0.10 | -1.21 | -1.11 |
| 26 | 90.0 | 0.10 | -1.16 | -1.06 |
| 25 | 86.4 | 0.06 | -1.11 | -1.05 |
| 24 | 82.8 | 0.08 | -1.07 | -0.99 |
| 23 | 79.2 | 0.08 | -1.02 | -0.94 |
| 22 | 75.6 | 0.07 | -0.97 | -0.90 |
| 21 | 72.0 | 0.07 | -0.93 | -0.86 |
| 20 | 68.4 | 0.06 | -0.88 | -0.82 |
| 19 | 64.8 | 0.00 | -0.83 | -0.83 |
| 18 | 61.2 | -0.02 | -0.79 | -0.81 |
| 17 | 57.6 | -0.04 | -0.74 | -0.78 |
| 16 | 54.0 | -0.08 | -0.70 | -0.78 |
| 15 | 50.4 | -0.09 | -0.65 | -0.74 |
| 14 | 46.8 | -0.10 | -0.60 | -0.70 |
| 13 | 43.2 | -0.12 | -0.56 | -0.68 |
| 12 | 39.6 | -0.11 | -0.51 | -0.62 |
| 11 | 36.0 | -0.10 | -0.46 | -0.56 |
| 10 | 32.4 | -0.10 | -0.42 | -0.52 |
| 9 | 28.8 | -0.09 | -0.37 | -0.46 |
| 8 | 25.2 | -0.08 | -0.32 | -0.40 |
| 7 | 21.6 | -0.10 | -0.28 | -0.38 |
| 6 | 18.0 | -0.09 | -0.23 | -0.32 |
| 5 | 14.4 | -0.08 | -0.19 | -0.27 |
| 4 | 10.8 | -0.07 | -0.14 | -0.21 |
| 3 | 7.2 | -0.05 | -0.09 | -0.14 |
| 2 | 3.6 | -0.02 | -0.05 | -0.07 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2188+00, MSU St. 14

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 44 | 154.8 | -0.12 | -1.88 | -2.00 |
| 43 | 151.2 | -0.10 | -1.83 | -1.93 |
| 42 | 147.6 | -0.07 | -1.79 | -1.86 |
| 41 | 144.0 | -0.05 | -1.75 | -1.80 |
| 40 | 140.4 | 0.00 | -1.70 | -1.70 |
| 39 | 136.8 | -0.04 | -1.66 | -1.70 |
| 38 | 133.2 | -0.07 | -1.61 | -1.68 |
| 37 | 129.6 | -0.07 | -1.57 | -1.64 |
| 36 | 126.0 | -0.06 | -1.53 | -1.59 |
| 35 | 122.4 | -0.09 | -1.48 | -1.57 |
| 34 | 118.8 | -0.07 | -1.44 | -1.51 |
| 33 | 115.2 | -0.05 | -1.40 | -1.45 |
| 32 | 111.6 | -0.04 | -1.35 | -1.39 |
| 31 | 108.0 | -0.02 | -1.31 | -1.33 |
| 30 | 104.4 | 0.00 | -1.27 | -1.27 |
| 29 | 100.8 | 0.02 | -1.22 | -1.20 |
| 28 | 97.2 | 0.04 | -1.18 | -1.14 |
| 27 | 93.6 | 0.04 | -1.13 | -1.09 |
| 26 | 90.0 | 0.05 | -1.09 | -1.04 |
| 25 | 86.4 | 0.04 | -1.05 | -1.01 |
| 24 | 82.8 | 0.04 | -1.00 | -0.96 |
| 23 | 79.2 | 0.01 | -0.96 | -0.95 |
| 22 | 75.6 | 0.00 | -0.92 | -0.92 |
| 21 | 72.0 | 0.00 | -0.87 | -0.87 |
| 20 | 68.4 | 0.00 | -0.83 | -0.83 |
| 19 | 64.8 | 0.00 | -0.79 | -0.79 |
| 18 | 61.2 | -0.02 | -0.74 | -0.76 |
| 17 | 57.6 | -0.02 | -0.70 | -0.72 |
| 16 | 54.0 | -0.06 | -0.65 | -0.71 |
| 15 | 50.4 | -0.06 | -0.61 | -0.67 |
| 14 | 46.8 | -0.09 | -0.57 | -0.66 |
| 13 | 43.2 | -0.08 | -0.52 | -0.60 |
| 12 | 39.6 | -0.06 | -0.48 | -0.54 |
| 11 | 36.0 | -0.05 | -0.44 | -0.49 |
| 10 | 32.4 | -0.04 | -0.39 | -0.43 |
| 9 | 28.8 | -0.02 | -0.35 | -0.37 |
| 8 | 25.2 | -0.01 | -0.31 | -0.32 |
| 7 | 21.6 | -0.03 | -0.26 | -0.29 |
| 6 | 18.0 | 0.00 | -0.22 | -0.22 |
| 5 | 14.4 | -0.01 | -0.17 | -0.18 |
| 4 | 10.8 | -0.01 | -0.13 | -0.14 |
| 3 | 7.2 | 0.02 | -0.09 | -0.07 |
| 2 | 3.6 | 0.02 | -0.04 | -0.02 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.8: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2184+00, MSU St. 15

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 41 | 144.0 | -0.10 | -1.42 | -1.52 |
| 40 | 140.4 | -0.10 | -1.38 | -1.48 |
| 39 | 136.8 | -0.04 | -1.35 | -1.39 |
| 38 | 133.2 | -0.11 | -1.31 | -1.42 |
| 37 | 129.6 | -0.12 | -1.28 | -1.40 |
| 36 | 126.0 | -0.13 | -1.24 | -1.37 |
| 35 | 122.4 | -0.16 | -1.21 | -1.37 |
| 34 | 118.8 | -0.14 | -1.17 | -1.31 |
| 33 | 115.2 | -0.12 | -1.13 | -1.25 |
| 32 | 111.6 | -0.09 | -1.10 | -1.19 |
| 31 | 108.0 | -0.06 | -1.06 | -1.12 |
| 30 | 104.4 | -0.05 | -1.03 | -1.08 |
| 29 | 100.8 | -0.03 | -0.99 | -1.02 |
| 28 | 97.2 | 0.00 | -0.96 | -0.96 |
| 27 | 93.6 | 0.00 | -0.92 | -0.92 |
| 26 | 90.0 | 0.01 | -0.89 | -0.88 |
| 25 | 86.4 | 0.04 | -0.85 | -0.81 |
| 24 | 82.8 | 0.03 | -0.82 | -0.79 |
| 23 | 79.2 | 0.05 | -0.78 | -0.73 |
| 22 | 75.6 | 0.08 | -0.74 | -0.66 |
| 21 | 72.0 | 0.06 | -0.71 | -0.65 |
| 20 | 68.4 | 0.03 | -0.67 | -0.64 |
| 19 | 64.8 | 0.03 | -0.64 | -0.61 |
| 18 | 61.2 | -0.01 | -0.60 | -0.61 |
| 17 | 57.6 | -0.04 | -0.57 | -0.61 |
| 16 | 54.0 | -0.06 | -0.53 | -0.59 |
| 15 | 50.4 | -0.10 | -0.50 | -0.60 |
| 14 | 46.8 | -0.08 | -0.46 | -0.54 |
| 13 | 43.2 | -0.04 | -0.43 | -0.47 |
| 12 | 39.6 | -0.04 | -0.39 | -0.43 |
| 11 | 36.0 | -0.02 | -0.35 | -0.37 |
| 10 | 32.4 | -0.01 | -0.32 | -0.33 |
| 9 | 28.8 | -0.02 | -0.28 | -0.30 |
| 8 | 25.2 | 0.00 | -0.25 | -0.25 |
| 7 | 21.6 | 0.00 | -0.21 | -0.21 |
| 6 | 18.0 | 0.00 | -0.18 | -0.18 |
| 5 | 14.4 | 0.00 | -0.14 | -0.14 |
| 4 | 10.8 | 0.00 | -0.11 | -0.11 |
| 3 | 7.2 | 0.00 | -0.07 | -0.07 |
| 2 | 3.6 | 0.02 | -0.04 | -0.02 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2180+00, MSU St. 16

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 41 | 144.0 | -0.14 | -1.42 | -1.56 |
| 40 | 140.4 | -0.17 | -1.38 | -1.55 |
| 39 | 136.8 | -0.16 | -1.35 | -1.51 |
| 38 | 133.2 | -0.17 | -1.31 | -1.48 |
| 37 | 129.6 | -0.16 | -1.28 | -1.44 |
| 36 | 126.0 | -0.12 | -1.24 | -1.36 |
| 35 | 122.4 | -0.12 | -1.21 | -1.33 |
| 34 | 118.8 | -0.10 | -1.17 | -1.27 |
| 33 | 115.2 | -0.05 | -1.13 | -1.18 |
| 32 | 111.6 | -0.02 | -1.10 | -1.12 |
| 31 | 108.0 | -0.03 | -1.06 | -1.09 |
| 30 | 104.4 | 0.02 | -1.03 | -1.01 |
| 29 | 100.8 | 0.04 | -0.99 | -0.95 |
| 28 | 97.2 | 0.05 | -0.96 | -0.91 |
| 27 | 93.6 | 0.07 | -0.92 | -0.85 |
| 26 | 90.0 | 0.05 | -0.89 | -0.84 |
| 25 | 86.4 | 0.05 | -0.85 | -0.80 |
| 24 | 82.8 | 0.04 | -0.82 | -0.78 |
| 23 | 79.2 | 0.03 | -0.78 | -0.75 |
| 22 | 75.6 | 0.02 | -0.74 | -0.72 |
| 21 | 72.0 | 0.00 | -0.71 | -0.71 |
| 20 | 68.4 | 0.02 | -0.67 | -0.65 |
| 19 | 64.8 | 0.01 | -0.64 | -0.63 |
| 18 | 61.2 | 0.00 | -0.60 | -0.60 |
| 17 | 57.6 | -0.01 | -0.57 | -0.58 |
| 16 | 54.0 | -0.01 | -0.53 | -0.54 |
| 15 | 50.4 | -0.01 | -0.50 | -0.51 |
| 14 | 46.8 | 0.00 | -0.46 | -0.46 |
| 13 | 43.2 | 0.01 | -0.43 | -0.42 |
| 12 | 39.6 | 0.00 | -0.39 | -0.39 |
| 11 | 36.0 | 0.03 | -0.35 | -0.32 |
| 10 | 32.4 | 0.03 | -0.32 | -0.29 |
| 9 | 28.8 | 0.03 | -0.28 | -0.25 |
| 8 | 25.2 | 0.04 | -0.25 | -0.21 |
| 7 | 21.6 | 0.06 | -0.21 | -0.15 |
| 6 | 18.0 | 0.03 | -0.18 | -0.15 |
| 5 | 14.4 | 0.05 | -0.14 | -0.09 |
| 4 | 10.8 | 0.05 | -0.11 | -0.06 |
| 3 | 7.2 | 0.01 | -0.07 | -0.06 |
| 2 | 3.6 | 0.00 | -0.04 | -0.04 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.9: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2176+00, MSU St. 17

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.03 | -1.15 | -1.12 |
| 42 | 147.6 | 0.06 | -1.12 | -1.06 |
| 41 | 144.0 | 0.10 | -1.09 | -0.99 |
| 40 | 140.4 | 0.07 | -1.06 | -0.99 |
| 39 | 136.8 | 0.06 | -1.04 | -0.98 |
| 38 | 133.2 | 0.03 | -1.01 | -0.98 |
| 37 | 129.6 | 0.00 | -0.98 | -0.98 |
| 36 | 126.0 | 0.01 | -0.95 | -0.94 |
| 35 | 122.4 | 0.00 | -0.93 | -0.93 |
| 34 | 118.8 | 0.00 | -0.90 | -0.90 |
| 33 | 115.2 | 0.04 | -0.87 | -0.83 |
| 32 | 111.6 | 0.07 | -0.85 | -0.78 |
| 31 | 108.0 | 0.10 | -0.82 | -0.72 |
| 30 | 104.4 | 0.15 | -0.79 | -0.64 |
| 29 | 100.8 | 0.17 | -0.76 | -0.59 |
| 28 | 97.2 | 0.17 | -0.74 | -0.57 |
| 27 | 93.6 | 0.20 | -0.71 | -0.51 |
| 26 | 90.0 | 0.20 | -0.68 | -0.48 |
| 25 | 86.4 | 0.20 | -0.65 | -0.45 |
| 24 | 82.8 | 0.20 | -0.63 | -0.43 |
| 23 | 79.2 | 0.20 | -0.60 | -0.40 |
| 22 | 75.6 | 0.20 | -0.57 | -0.37 |
| 21 | 72.0 | 0.19 | -0.55 | -0.36 |
| 20 | 68.4 | 0.16 | -0.52 | -0.36 |
| 19 | 64.8 | 0.13 | -0.49 | -0.36 |
| 18 | 61.2 | 0.10 | -0.46 | -0.36 |
| 17 | 57.6 | 0.10 | -0.44 | -0.34 |
| 16 | 54.0 | 0.07 | -0.41 | -0.34 |
| 15 | 50.4 | 0.05 | -0.38 | -0.33 |
| 14 | 46.8 | 0.08 | -0.35 | -0.27 |
| 13 | 43.2 | 0.08 | -0.33 | -0.25 |
| 12 | 39.6 | 0.10 | -0.30 | -0.20 |
| 11 | 36.0 | 0.09 | -0.27 | -0.18 |
| 10 | 32.4 | 0.10 | -0.25 | -0.15 |
| 9 | 28.8 | 0.09 | -0.22 | -0.13 |
| 8 | 25.2 | 0.07 | -0.19 | -0.12 |
| 7 | 21.6 | 0.10 | -0.16 | -0.06 |
| 6 | 18.0 | 0.08 | -0.14 | -0.06 |
| 5 | 14.4 | 0.10 | -0.11 | -0.01 |
| 4 | 10.8 | 0.13 | -0.08 | 0.05 |
| 3 | 7.2 | 0.12 | -0.05 | 0.07 |
| 2 | 3.6 | 0.10 | -0.03 | 0.07 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2170+00, MSU St. 18

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.20 | -0.92 | -1.12 |
| 42 | 147.6 | -0.26 | -0.89 | -1.15 |
| 41 | 144.0 | -0.24 | -0.87 | -1.11 |
| 40 | 140.4 | -0.25 | -0.85 | -1.10 |
| 39 | 136.8 | -0.29 | -0.83 | -1.12 |
| 38 | 133.2 | -0.24 | -0.81 | -1.05 |
| 37 | 129.6 | -0.26 | -0.79 | -1.05 |
| 36 | 126.0 | -0.23 | -0.76 | -0.99 |
| 35 | 122.4 | -0.22 | -0.74 | -0.96 |
| 34 | 118.8 | -0.21 | -0.72 | -0.93 |
| 33 | 115.2 | -0.20 | -0.70 | -0.90 |
| 32 | 111.6 | -0.17 | -0.68 | -0.85 |
| 31 | 108.0 | -0.17 | -0.65 | -0.82 |
| 30 | 104.4 | -0.14 | -0.63 | -0.77 |
| 29 | 100.8 | -0.18 | -0.61 | -0.79 |
| 28 | 97.2 | -0.17 | -0.59 | -0.76 |
| 27 | 93.6 | -0.15 | -0.57 | -0.72 |
| 26 | 90.0 | -0.16 | -0.55 | -0.71 |
| 25 | 86.4 | -0.18 | -0.52 | -0.70 |
| 24 | 82.8 | -0.18 | -0.50 | -0.68 |
| 23 | 79.2 | -0.19 | -0.48 | -0.67 |
| 22 | 75.6 | -0.17 | -0.46 | -0.63 |
| 21 | 72.0 | -0.20 | -0.44 | -0.64 |
| 20 | 68.4 | -0.20 | -0.41 | -0.61 |
| 19 | 64.8 | -0.21 | -0.39 | -0.60 |
| 18 | 61.2 | -0.19 | -0.37 | -0.56 |
| 17 | 57.6 | -0.19 | -0.35 | -0.54 |
| 16 | 54.0 | -0.19 | -0.33 | -0.52 |
| 15 | 50.4 | -0.18 | -0.31 | -0.49 |
| 14 | 46.8 | -0.16 | -0.28 | -0.44 |
| 13 | 43.2 | -0.17 | -0.26 | -0.43 |
| 12 | 39.6 | -0.15 | -0.24 | -0.39 |
| 11 | 36.0 | -0.12 | -0.22 | -0.34 |
| 10 | 32.4 | -0.12 | -0.20 | -0.32 |
| 9 | 28.8 | -0.14 | -0.17 | -0.31 |
| 8 | 25.2 | -0.13 | -0.15 | -0.28 |
| 7 | 21.6 | -0.11 | -0.13 | -0.24 |
| 6 | 18.0 | -0.11 | -0.11 | -0.22 |
| 5 | 14.4 | -0.06 | -0.09 | -0.15 |
| 4 | 10.8 | -0.02 | -0.07 | -0.09 |
| 3 | 7.2 | -0.01 | -0.04 | -0.05 |
| 2 | 3.6 | 0.00 | -0.02 | -0.02 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.10: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2164+00, MSU St. 19

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.13 | -0.92 | -0.79 |
| 42 | 147.6 | 0.06 | -0.89 | -0.83 |
| 41 | 144.0 | 0.10 | -0.87 | -0.77 |
| 40 | 140.4 | 0.09 | -0.85 | -0.76 |
| 39 | 136.8 | 0.10 | -0.83 | -0.73 |
| 38 | 133.2 | 0.09 | -0.81 | -0.72 |
| 37 | 129.6 | 0.08 | -0.79 | -0.71 |
| 36 | 126.0 | 0.10 | -0.76 | -0.66 |
| 35 | 122.4 | 0.04 | -0.74 | -0.70 |
| 34 | 118.8 | 0.03 | -0.72 | -0.69 |
| 33 | 115.2 | 0.00 | -0.70 | -0.70 |
| 32 | 111.6 | 0.01 | -0.68 | -0.67 |
| 31 | 108.0 | 0.01 | -0.65 | -0.64 |
| 30 | 104.4 | 0.03 | -0.63 | -0.60 |
| 29 | 100.8 | 0.06 | -0.61 | -0.55 |
| 28 | 97.2 | 0.05 | -0.59 | -0.54 |
| 27 | 93.6 | 0.08 | -0.57 | -0.49 |
| 26 | 90.0 | 0.07 | -0.55 | -0.48 |
| 25 | 86.4 | 0.07 | -0.52 | -0.45 |
| 24 | 82.8 | 0.09 | -0.50 | -0.41 |
| 23 | 79.2 | 0.10 | -0.48 | -0.38 |
| 22 | 75.6 | 0.09 | -0.46 | -0.37 |
| 21 | 72.0 | 0.09 | -0.44 | -0.35 |
| 20 | 68.4 | 0.01 | -0.41 | -0.40 |
| 19 | 64.8 | 0.00 | -0.39 | -0.39 |
| 18 | 61.2 | -0.03 | -0.37 | -0.40 |
| 17 | 57.6 | -0.01 | -0.35 | -0.36 |
| 16 | 54.0 | 0.01 | -0.33 | -0.32 |
| 15 | 50.4 | -0.02 | -0.31 | -0.33 |
| 14 | 46.8 | 0.00 | -0.28 | -0.28 |
| 13 | 43.2 | 0.01 | -0.26 | -0.25 |
| 12 | 39.6 | 0.00 | -0.24 | -0.24 |
| 11 | 36.0 | 0.00 | -0.22 | -0.22 |
| 10 | 32.4 | 0.01 | -0.20 | -0.19 |
| 9 | 28.8 | 0.00 | -0.17 | -0.17 |
| 8 | 25.2 | 0.01 | -0.15 | -0.14 |
| 7 | 21.6 | 0.00 | -0.13 | -0.13 |
| 6 | 18.0 | 0.02 | -0.11 | -0.09 |
| 5 | 14.4 | 0.04 | -0.09 | -0.05 |
| 4 | 10.8 | 0.03 | -0.07 | -0.04 |
| 3 | 7.2 | -0.03 | -0.04 | -0.07 |
| 2 | 3.6 | 0.03 | -0.02 | 0.01 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2160+00, MSU St. 20

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 42 | 147.6 | 0.10 | -1.90 | -1.80 |
| 41 | 144.0 | 0.10 | -1.85 | -1.75 |
| 40 | 140.4 | 0.10 | -1.81 | -1.71 |
| 39 | 136.8 | 0.10 | -1.76 | -1.66 |
| 38 | 133.2 | 0.08 | -1.72 | -1.64 |
| 37 | 129.6 | 0.10 | -1.67 | -1.57 |
| 36 | 126.0 | 0.10 | -1.62 | -1.52 |
| 35 | 122.4 | 0.09 | -1.58 | -1.49 |
| 34 | 118.8 | 0.11 | -1.53 | -1.42 |
| 33 | 115.2 | 0.11 | -1.48 | -1.37 |
| 32 | 111.6 | 0.10 | -1.44 | -1.34 |
| 31 | 108.0 | 0.12 | -1.39 | -1.27 |
| 30 | 104.4 | 0.10 | -1.34 | -1.24 |
| 29 | 100.8 | 0.10 | -1.30 | -1.20 |
| 28 | 97.2 | 0.10 | -1.25 | -1.15 |
| 27 | 93.6 | 0.09 | -1.21 | -1.12 |
| 26 | 90.0 | 0.10 | -1.16 | -1.06 |
| 25 | 86.4 | 0.10 | -1.11 | -1.01 |
| 24 | 82.8 | 0.10 | -1.07 | -0.97 |
| 23 | 79.2 | 0.10 | -1.02 | -0.92 |
| 22 | 75.6 | 0.10 | -0.97 | -0.87 |
| 21 | 72.0 | 0.11 | -0.93 | -0.82 |
| 20 | 68.4 | 0.14 | -0.88 | -0.74 |
| 19 | 64.8 | 0.10 | -0.83 | -0.73 |
| 18 | 61.2 | 0.06 | -0.79 | -0.73 |
| 17 | 57.6 | 0.05 | -0.74 | -0.69 |
| 16 | 54.0 | 0.03 | -0.70 | -0.67 |
| 15 | 50.4 | 0.05 | -0.65 | -0.60 |
| 14 | 46.8 | 0.04 | -0.60 | -0.56 |
| 13 | 43.2 | 0.04 | -0.56 | -0.52 |
| 12 | 39.6 | 0.05 | -0.51 | -0.46 |
| 11 | 36.0 | 0.03 | -0.46 | -0.43 |
| 10 | 32.4 | 0.00 | -0.42 | -0.42 |
| 9 | 28.8 | 0.04 | -0.37 | -0.33 |
| 8 | 25.2 | 0.05 | -0.32 | -0.27 |
| 7 | 21.6 | 0.07 | -0.28 | -0.21 |
| 6 | 18.0 | 0.12 | -0.23 | -0.11 |
| 5 | 14.4 | 0.13 | -0.19 | -0.06 |
| 4 | 10.8 | 0.10 | -0.14 | -0.04 |
| 3 | 7.2 | 0.07 | -0.09 | -0.02 |
| 2 | 3.6 | 0.01 | -0.05 | -0.04 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.11: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2154+00, MSU St. 21

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 42 | 147.6 | 0.04 | -1.79 | -1.75 |
| 41 | 144.0 | 0.00 | -1.75 | -1.75 |
| 40 | 140.4 | -0.01 | -1.70 | -1.71 |
| 39 | 136.8 | -0.03 | -1.66 | -1.69 |
| 38 | 133.2 | -0.04 | -1.61 | -1.65 |
| 37 | 129.6 | -0.02 | -1.57 | -1.59 |
| 36 | 126.0 | -0.01 | -1.53 | -1.54 |
| 35 | 122.4 | -0.01 | -1.48 | -1.49 |
| 34 | 118.8 | 0.02 | -1.44 | -1.42 |
| 33 | 115.2 | 0.02 | -1.40 | -1.38 |
| 32 | 111.6 | 0.03 | -1.35 | -1.32 |
| 31 | 108.0 | 0.05 | -1.31 | -1.26 |
| 30 | 104.4 | 0.06 | -1.27 | -1.21 |
| 29 | 100.8 | 0.07 | -1.22 | -1.15 |
| 28 | 97.2 | 0.09 | -1.18 | -1.09 |
| 27 | 93.6 | 0.08 | -1.13 | -1.05 |
| 26 | 90.0 | 0.08 | -1.09 | -1.01 |
| 25 | 86.4 | 0.08 | -1.05 | -0.97 |
| 24 | 82.8 | 0.06 | -1.00 | -0.94 |
| 23 | 79.2 | 0.06 | -0.96 | -0.90 |
| 22 | 75.6 | 0.05 | -0.92 | -0.87 |
| 21 | 72.0 | 0.05 | -0.87 | -0.82 |
| 20 | 68.4 | 0.03 | -0.83 | -0.80 |
| 19 | 64.8 | 0.02 | -0.79 | -0.77 |
| 18 | 61.2 | 0.03 | -0.74 | -0.71 |
| 17 | 57.6 | 0.03 | -0.70 | -0.67 |
| 16 | 54.0 | 0.03 | -0.65 | -0.62 |
| 15 | 50.4 | 0.03 | -0.61 | -0.58 |
| 14 | 46.8 | 0.05 | -0.57 | -0.52 |
| 13 | 43.2 | 0.04 | -0.52 | -0.48 |
| 12 | 39.6 | 0.07 | -0.48 | -0.41 |
| 11 | 36.0 | 0.08 | -0.44 | -0.36 |
| 10 | 32.4 | 0.05 | -0.39 | -0.34 |
| 9 | 28.8 | 0.06 | -0.35 | -0.29 |
| 8 | 25.2 | 0.07 | -0.31 | -0.24 |
| 7 | 21.6 | 0.04 | -0.26 | -0.22 |
| 6 | 18.0 | 0.07 | -0.22 | -0.15 |
| 5 | 14.4 | 0.06 | -0.17 | -0.11 |
| 4 | 10.8 | 0.05 | -0.13 | -0.08 |
| 3 | 7.2 | 0.06 | -0.09 | -0.03 |
| 2 | 3.6 | 0.00 | -0.04 | -0.04 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2150+00, MSU St. 22

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.12 | -2.06 | -2.18 |
| 42 | 147.6 | -0.03 | -2.01 | -2.04 |
| 41 | 144.0 | -0.07 | -1.96 | -2.03 |
| 40 | 140.4 | -0.07 | -1.91 | -1.98 |
| 39 | 136.8 | -0.04 | -1.87 | -1.91 |
| 38 | 133.2 | -0.03 | -1.82 | -1.85 |
| 37 | 129.6 | -0.02 | -1.77 | -1.79 |
| 36 | 126.0 | 0.02 | -1.72 | -1.70 |
| 35 | 122.4 | 0.04 | -1.67 | -1.63 |
| 34 | 118.8 | 0.03 | -1.62 | -1.59 |
| 33 | 115.2 | 0.06 | -1.57 | -1.51 |
| 32 | 111.6 | 0.10 | -1.52 | -1.42 |
| 31 | 108.0 | 0.10 | -1.47 | -1.37 |
| 30 | 104.4 | 0.11 | -1.42 | -1.31 |
| 29 | 100.8 | 0.13 | -1.37 | -1.24 |
| 28 | 97.2 | 0.12 | -1.33 | -1.21 |
| 27 | 93.6 | 0.13 | -1.28 | -1.15 |
| 26 | 90.0 | 0.11 | -1.23 | -1.12 |
| 25 | 86.4 | 0.12 | -1.18 | -1.06 |
| 24 | 82.8 | 0.13 | -1.13 | -1.00 |
| 23 | 79.2 | 0.10 | -1.08 | -0.98 |
| 22 | 75.6 | 0.08 | -1.03 | -0.95 |
| 21 | 72.0 | 0.10 | -0.98 | -0.88 |
| 20 | 68.4 | 0.08 | -0.93 | -0.85 |
| 19 | 64.8 | 0.10 | -0.88 | -0.78 |
| 18 | 61.2 | 0.08 | -0.83 | -0.75 |
| 17 | 57.6 | 0.08 | -0.79 | -0.71 |
| 16 | 54.0 | 0.10 | -0.74 | -0.64 |
| 15 | 50.4 | 0.08 | -0.69 | -0.61 |
| 14 | 46.8 | 0.08 | -0.64 | -0.56 |
| 13 | 43.2 | 0.09 | -0.59 | -0.50 |
| 12 | 39.6 | 0.07 | -0.54 | -0.47 |
| 11 | 36.0 | 0.07 | -0.49 | -0.42 |
| 10 | 32.4 | 0.07 | -0.44 | -0.37 |
| 9 | 28.8 | 0.08 | -0.39 | -0.31 |
| 8 | 25.2 | 0.07 | -0.34 | -0.27 |
| 7 | 21.6 | 0.07 | -0.29 | -0.22 |
| 6 | 18.0 | 0.07 | -0.25 | -0.18 |
| 5 | 14.4 | 0.09 | -0.20 | -0.11 |
| 4 | 10.8 | 0.08 | -0.15 | -0.07 |
| 3 | 7.2 | 0.06 | -0.10 | -0.04 |
| 2 | 3.6 | 0.04 | -0.05 | -0.01 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.12: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2144+00, MSU St. 23

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 41 | 144.0 | 0.10 | -1.20 | -1.10 |
| 40 | 140.4 | 0.02 | -1.17 | -1.15 |
| 39 | 136.8 | 0.01 | -1.14 | -1.13 |
| 38 | 133.2 | 0.02 | -1.11 | -1.09 |
| 37 | 129.6 | 0.02 | -1.08 | -1.06 |
| 36 | 126.0 | 0.03 | -1.05 | -1.02 |
| 35 | 122.4 | 0.05 | -1.02 | -0.97 |
| 34 | 118.8 | 0.04 | -0.99 | -0.95 |
| 33 | 115.2 | 0.06 | -0.96 | -0.90 |
| 32 | 111.6 | 0.07 | -0.93 | -0.86 |
| 31 | 108.0 | 0.04 | -0.90 | -0.86 |
| 30 | 104.4 | 0.05 | -0.87 | -0.82 |
| 29 | 100.8 | 0.04 | -0.84 | -0.80 |
| 28 | 97.2 | 0.03 | -0.81 | -0.78 |
| 27 | 93.6 | 0.03 | -0.78 | -0.75 |
| 26 | 90.0 | 0.03 | -0.75 | -0.72 |
| 25 | 86.4 | 0.03 | -0.72 | -0.69 |
| 24 | 82.8 | 0.04 | -0.69 | -0.65 |
| 23 | 79.2 | 0.05 | -0.66 | -0.61 |
| 22 | 75.6 | 0.03 | -0.63 | -0.60 |
| 21 | 72.0 | 0.03 | -0.60 | -0.57 |
| 20 | 68.4 | 0.00 | -0.57 | -0.57 |
| 19 | 64.8 | 0.00 | -0.54 | -0.54 |
| 18 | 61.2 | 0.00 | -0.51 | -0.51 |
| 17 | 57.6 | -0.01 | -0.48 | -0.49 |
| 16 | 54.0 | -0.02 | -0.45 | -0.47 |
| 15 | 50.4 | -0.01 | -0.42 | -0.43 |
| 14 | 46.8 | 0.00 | -0.39 | -0.39 |
| 13 | 43.2 | 0.00 | -0.36 | -0.36 |
| 12 | 39.6 | 0.00 | -0.33 | -0.33 |
| 11 | 36.0 | 0.04 | -0.30 | -0.26 |
| 10 | 32.4 | 0.05 | -0.27 | -0.22 |
| 9 | 28.8 | 0.06 | -0.24 | -0.18 |
| 8 | 25.2 | 0.09 | -0.21 | -0.12 |
| 7 | 21.6 | 0.11 | -0.18 | -0.07 |
| 6 | 18.0 | 0.14 | -0.15 | -0.01 |
| 5 | 14.4 | 0.18 | -0.12 | 0.06 |
| 4 | 10.8 | 0.20 | -0.09 | 0.11 |
| 3 | 7.2 | 0.13 | -0.06 | 0.07 |
| 2 | 3.6 | 0.10 | -0.03 | 0.07 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2138+00, MSU St. 24

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 40 | 140.4 | 0.20 | -1.70 | -1.50 |
| 39 | 136.8 | 0.18 | -1.66 | -1.48 |
| 38 | 133.2 | 0.20 | -1.61 | -1.41 |
| 37 | 129.6 | 0.19 | -1.57 | -1.38 |
| 36 | 126.0 | 0.19 | -1.53 | -1.34 |
| 35 | 122.4 | 0.20 | -1.48 | -1.28 |
| 34 | 118.8 | 0.21 | -1.44 | -1.23 |
| 33 | 115.2 | 0.23 | -1.40 | -1.17 |
| 32 | 111.6 | 0.24 | -1.35 | -1.11 |
| 31 | 108.0 | 0.25 | -1.31 | -1.06 |
| 30 | 104.4 | 0.26 | -1.27 | -1.01 |
| 29 | 100.8 | 0.27 | -1.22 | -0.95 |
| 28 | 97.2 | 0.25 | -1.18 | -0.93 |
| 27 | 93.6 | 0.21 | -1.13 | -0.92 |
| 26 | 90.0 | 0.21 | -1.09 | -0.88 |
| 25 | 86.4 | 0.20 | -1.05 | -0.85 |
| 24 | 82.8 | 0.18 | -1.00 | -0.82 |
| 23 | 79.2 | 0.19 | -0.96 | -0.77 |
| 22 | 75.6 | 0.15 | -0.92 | -0.77 |
| 21 | 72.0 | 0.11 | -0.87 | -0.76 |
| 20 | 68.4 | 0.12 | -0.83 | -0.71 |
| 19 | 64.8 | 0.10 | -0.79 | -0.69 |
| 18 | 61.2 | 0.10 | -0.74 | -0.64 |
| 17 | 57.6 | 0.08 | -0.70 | -0.62 |
| 16 | 54.0 | 0.08 | -0.65 | -0.57 |
| 15 | 50.4 | 0.09 | -0.61 | -0.52 |
| 14 | 46.8 | 0.08 | -0.57 | -0.49 |
| 13 | 43.2 | 0.09 | -0.52 | -0.43 |
| 12 | 39.6 | 0.07 | -0.48 | -0.41 |
| 11 | 36.0 | 0.07 | -0.44 | -0.37 |
| 10 | 32.4 | 0.07 | -0.39 | -0.32 |
| 9 | 28.8 | 0.08 | -0.35 | -0.27 |
| 8 | 25.2 | 0.07 | -0.31 | -0.24 |
| 7 | 21.6 | 0.06 | -0.26 | -0.20 |
| 6 | 18.0 | 0.08 | -0.22 | -0.14 |
| 5 | 14.4 | 0.06 | -0.17 | -0.11 |
| 4 | 10.8 | 0.07 | -0.13 | -0.06 |
| 3 | 7.2 | 0.09 | -0.09 | 0.00 |
| 2 | 3.6 | 0.04 | -0.04 | 0.00 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 43.13: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Westbound Passing Lane.

2134+00, MSU St. 25

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.17 | -1.37 | -1.20 |
| 42 | 147.6 | 0.20 | -1.34 | -1.14 |
| 41 | 144.0 | 0.18 | -1.31 | -1.13 |
| 40 | 140.4 | 0.18 | -1.28 | -1.10 |
| 39 | 136.8 | 0.15 | -1.24 | -1.09 |
| 38 | 133.2 | 0.17 | -1.21 | -1.04 |
| 37 | 129.6 | 0.19 | -1.18 | -0.99 |
| 36 | 126.0 | 0.18 | -1.15 | -0.97 |
| 35 | 122.4 | 0.19 | -1.11 | -0.92 |
| 34 | 118.8 | 0.20 | -1.08 | -0.88 |
| 33 | 115.2 | 0.20 | -1.05 | -0.85 |
| 32 | 111.6 | 0.22 | -1.01 | -0.79 |
| 31 | 108.0 | 0.21 | -0.98 | -0.77 |
| 30 | 104.4 | 0.21 | -0.95 | -0.74 |
| 29 | 100.8 | 0.21 | -0.92 | -0.71 |
| 28 | 97.2 | 0.20 | -0.88 | -0.68 |
| 27 | 93.6 | 0.20 | -0.85 | -0.65 |
| 26 | 90.0 | 0.20 | -0.82 | -0.62 |
| 25 | 86.4 | 0.20 | -0.79 | -0.59 |
| 24 | 82.8 | 0.17 | -0.75 | -0.58 |
| 23 | 79.2 | 0.18 | -0.72 | -0.54 |
| 22 | 75.6 | 0.17 | -0.69 | -0.52 |
| 21 | 72.0 | 0.13 | -0.65 | -0.52 |
| 20 | 68.4 | 0.13 | -0.62 | -0.49 |
| 19 | 64.8 | 0.12 | -0.59 | -0.47 |
| 18 | 61.2 | 0.11 | -0.56 | -0.45 |
| 17 | 57.6 | 0.10 | -0.52 | -0.42 |
| 16 | 54.0 | 0.10 | -0.49 | -0.39 |
| 15 | 50.4 | 0.11 | -0.46 | -0.35 |
| 14 | 46.8 | 0.09 | -0.43 | -0.34 |
| 13 | 43.2 | 0.10 | -0.39 | -0.29 |
| 12 | 39.6 | 0.11 | -0.36 | -0.25 |
| 11 | 36.0 | 0.10 | -0.33 | -0.23 |
| 10 | 32.4 | 0.11 | -0.29 | -0.18 |
| 9 | 28.8 | 0.11 | -0.26 | -0.15 |
| 8 | 25.2 | 0.10 | -0.23 | -0.13 |
| 7 | 21.6 | 0.10 | -0.20 | -0.10 |
| 6 | 18.0 | 0.09 | -0.16 | -0.07 |
| 5 | 14.4 | 0.09 | -0.13 | -0.04 |
| 4 | 10.8 | 0.10 | -0.10 | 0.00 |
| 3 | 7.2 | 0.07 | -0.07 | 0.00 |
| 2 | 3.6 | 0.00 | -0.03 | -0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2130+00, MSU St. 26

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 42 | 147.6 | -0.01 | -1.90 | -1.91 |
| 41 | 144.0 | -0.04 | -1.85 | -1.89 |
| 40 | 140.4 | -0.07 | -1.81 | -1.88 |
| 39 | 136.8 | -0.05 | -1.76 | -1.81 |
| 38 | 133.2 | -0.05 | -1.72 | -1.77 |
| 37 | 129.6 | -0.03 | -1.67 | -1.70 |
| 36 | 126.0 | -0.02 | -1.62 | -1.64 |
| 35 | 122.4 | -0.01 | -1.58 | -1.59 |
| 34 | 118.8 | 0.00 | -1.53 | -1.53 |
| 33 | 115.2 | 0.03 | -1.48 | -1.45 |
| 32 | 111.6 | 0.05 | -1.44 | -1.39 |
| 31 | 108.0 | 0.09 | -1.39 | -1.30 |
| 30 | 104.4 | 0.11 | -1.34 | -1.23 |
| 29 | 100.8 | 0.11 | -1.30 | -1.19 |
| 28 | 97.2 | 0.12 | -1.25 | -1.13 |
| 27 | 93.6 | 0.11 | -1.21 | -1.10 |
| 26 | 90.0 | 0.10 | -1.16 | -1.06 |
| 25 | 86.4 | 0.10 | -1.11 | -1.01 |
| 24 | 82.8 | 0.10 | -1.07 | -0.97 |
| 23 | 79.2 | 0.10 | -1.02 | -0.92 |
| 22 | 75.6 | 0.09 | -0.97 | -0.88 |
| 21 | 72.0 | 0.09 | -0.93 | -0.84 |
| 20 | 68.4 | 0.08 | -0.88 | -0.80 |
| 19 | 64.8 | 0.08 | -0.83 | -0.75 |
| 18 | 61.2 | 0.07 | -0.79 | -0.72 |
| 17 | 57.6 | 0.07 | -0.74 | -0.67 |
| 16 | 54.0 | 0.07 | -0.70 | -0.63 |
| 15 | 50.4 | 0.07 | -0.65 | -0.58 |
| 14 | 46.8 | 0.06 | -0.60 | -0.54 |
| 13 | 43.2 | 0.07 | -0.56 | -0.49 |
| 12 | 39.6 | 0.09 | -0.51 | -0.42 |
| 11 | 36.0 | 0.10 | -0.46 | -0.36 |
| 10 | 32.4 | 0.09 | -0.42 | -0.33 |
| 9 | 28.8 | 0.10 | -0.37 | -0.27 |
| 8 | 25.2 | 0.09 | -0.32 | -0.23 |
| 7 | 21.6 | 0.08 | -0.28 | -0.20 |
| 6 | 18.0 | 0.10 | -0.23 | -0.13 |
| 5 | 14.4 | 0.10 | -0.19 | -0.09 |
| 4 | 10.8 | 0.09 | -0.14 | -0.05 |
| 3 | 7.2 | 0.09 | -0.09 | 0.00 |
| 2 | 3.6 | 0.08 | -0.05 | 0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 44.1: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2130+00, MSU St. 27

| Point | Pavement Width (X) | Width Feet | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|---|
| 1 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.3 | 0.09 | -0.05 | 0.04 |
| 3 | 7.2 | 0.6 | 0.07 | -0.11 | -0.04 |
| 4 | 10.8 | 0.9 | 0.05 | -0.16 | -0.11 |
| 5 | 14.4 | 1.2 | 0.04 | -0.22 | -0.18 |
| 6 | 18.0 | 1.5 | 0.00 | -0.27 | -0.27 |
| 7 | 21.6 | 1.8 | 0.03 | -0.33 | -0.30 |
| 8 | 25.2 | 2.1 | 0.06 | -0.38 | -0.32 |
| 9 | 28.8 | 2.4 | 0.05 | -0.44 | -0.39 |
| 10 | 32.4 | 2.7 | 0.09 | -0.49 | -0.40 |
| 11 | 36.0 | 3.0 | 0.13 | -0.55 | -0.42 |
| 12 | 39.6 | 3.3 | 0.02 | -0.60 | -0.58 |
| 13 | 43.2 | 3.6 | 0.20 | -0.65 | -0.45 |
| 14 | 46.8 | 3.9 | 0.28 | -0.71 | -0.43 |
| 15 | 50.4 | 4.2 | 0.30 | -0.76 | -0.46 |
| 16 | 54.0 | 4.5 | 0.32 | -0.82 | -0.50 |
| 17 | 57.6 | 4.8 | 0.37 | -0.87 | -0.50 |
| 18 | 61.2 | 5.1 | 0.37 | -0.93 | -0.56 |
| 19 | 64.8 | 5.4 | 0.39 | -0.98 | -0.59 |
| 20 | 68.4 | 5.7 | 0.39 | -1.04 | -0.65 |
| 21 | 72.0 | 6.0 | 0.38 | -1.09 | -0.71 |
| 22 | 75.6 | 6.3 | 0.37 | -1.15 | -0.78 |
| 23 | 79.2 | 6.6 | 0.37 | -1.20 | -0.83 |
| 24 | 82.8 | 6.9 | 0.38 | -1.25 | -0.87 |
| 25 | 86.4 | 7.2 | 0.30 | -1.31 | -1.01 |
| 26 | 90.0 | 7.5 | 0.30 | -1.36 | -1.06 |
| 27 | 93.6 | 7.8 | 0.31 | -1.42 | -1.11 |
| 28 | 97.2 | 8.1 | 0.27 | -1.47 | -1.20 |
| 29 | 100.8 | 8.4 | 0.30 | -1.53 | -1.23 |
| 30 | 104.4 | 8.7 | 0.29 | -1.58 | -1.29 |
| 31 | 108.0 | 9.0 | 0.27 | -1.64 | -1.37 |
| 32 | 111.6 | 9.3 | 0.29 | -1.69 | -1.40 |
| 33 | 115.2 | 9.6 | 0.31 | -1.75 | -1.44 |
| 34 | 118.8 | 9.9 | 0.35 | -1.80 | -1.45 |
| 35 | 122.4 | 10.2 | 0.41 | -1.85 | -1.44 |
| 36 | 126.0 | 10.5 | 0.44 | -1.91 | -1.47 |
| 37 | 129.6 | 10.8 | 0.35 | -1.96 | -1.61 |
| 38 | 133.2 | 11.1 | 0.32 | -2.02 | -1.70 |
| 39 | 136.8 | 11.4 | 0.30 | -2.07 | -1.77 |
| 40 | 140.4 | 11.7 | 0.15 | -2.13 | -1.98 |
| 41 | 144.0 | 12.0 | 0.08 | -2.18 | -2.10 |
| 42 | 147.6 | 12.3 | 0.00 | -2.24 | -2.24 |

2134+00, MSU St. 28

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.04 | -0.07 | -0.03 |
| 3 | 7.2 | 0.03 | -0.13 | -0.10 |
| 4 | 10.8 | 0.09 | -0.20 | -0.11 |
| 5 | 14.4 | 0.07 | -0.26 | -0.19 |
| 6 | 18.0 | 0.06 | -0.33 | -0.27 |
| 7 | 21.6 | 0.10 | -0.39 | -0.29 |
| 8 | 25.2 | 0.13 | -0.46 | -0.33 |
| 9 | 28.8 | 0.15 | -0.52 | -0.37 |
| 10 | 32.4 | 0.23 | -0.59 | -0.36 |
| 11 | 36.0 | 0.31 | -0.65 | -0.34 |
| 12 | 39.6 | 0.36 | -0.72 | -0.36 |
| 13 | 43.2 | 0.45 | -0.79 | -0.34 |
| 14 | 46.8 | 0.52 | -0.85 | -0.33 |
| 15 | 50.4 | 0.54 | -0.92 | -0.38 |
| 16 | 54.0 | 0.59 | -0.98 | -0.39 |
| 17 | 57.6 | 0.63 | -1.05 | -0.42 |
| 18 | 61.2 | 0.64 | -1.11 | -0.47 |
| 19 | 64.8 | 0.65 | -1.18 | -0.53 |
| 20 | 68.4 | 0.67 | -1.24 | -0.57 |
| 21 | 72.0 | 0.69 | -1.31 | -0.62 |
| 22 | 75.6 | 0.68 | -1.37 | -0.69 |
| 23 | 79.2 | 0.68 | -1.44 | -0.76 |
| 24 | 82.8 | 0.67 | -1.51 | -0.84 |
| 25 | 86.4 | 0.64 | -1.57 | -0.93 |
| 26 | 90.0 | 0.66 | -1.64 | -0.98 |
| 27 | 93.6 | 0.68 | -1.70 | -1.02 |
| 28 | 97.2 | 0.67 | -1.77 | -1.10 |
| 29 | 100.8 | 0.71 | -1.83 | -1.12 |
| 30 | 104.4 | 0.73 | -1.90 | -1.17 |
| 31 | 108.0 | 0.74 | -1.96 | -1.22 |
| 32 | 111.6 | 0.83 | -2.03 | -1.20 |
| 33 | 115.2 | 0.90 | -2.09 | -1.19 |
| 34 | 118.8 | 0.91 | -2.16 | -1.25 |
| 35 | 122.4 | 0.94 | -2.23 | -1.29 |
| 36 | 126.0 | 0.93 | -2.29 | -1.36 |
| 37 | 129.6 | 0.88 | -2.36 | -1.48 |
| 38 | 133.2 | 0.93 | -2.42 | -1.49 |
| 39 | 136.8 | 0.86 | -2.49 | -1.63 |
| 40 | 140.4 | 0.75 | -2.55 | -1.80 |
| 41 | 144.0 | 0.69 | -2.62 | -1.93 |
| 42 | 147.6 | 0.39 | -2.68 | -2.29 |

Table 44.2: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2138+00, MSU St. 29

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.05 | 0.05 |
| 3 | 7.2 | 0.14 | -0.09 | 0.05 |
| 4 | 10.8 | 0.19 | -0.14 | 0.05 |
| 5 | 14.4 | 0.22 | -0.19 | 0.03 |
| 6 | 18.0 | 0.23 | -0.23 | -0.00 |
| 7 | 21.6 | 0.24 | -0.28 | -0.04 |
| 8 | 25.2 | 0.24 | -0.32 | -0.08 |
| 9 | 28.8 | 0.22 | -0.37 | -0.15 |
| 10 | 32.4 | 0.20 | -0.42 | -0.22 |
| 11 | 36.0 | 0.17 | -0.46 | -0.29 |
| 12 | 39.6 | 0.13 | -0.51 | -0.38 |
| 13 | 43.2 | 0.15 | -0.56 | -0.41 |
| 14 | 46.8 | 0.17 | -0.60 | -0.43 |
| 15 | 50.4 | 0.17 | -0.65 | -0.48 |
| 16 | 54.0 | 0.20 | -0.70 | -0.50 |
| 17 | 57.6 | 0.24 | -0.74 | -0.50 |
| 18 | 61.2 | 0.27 | -0.79 | -0.52 |
| 19 | 64.8 | 0.30 | -0.83 | -0.53 |
| 20 | 68.4 | 0.31 | -0.88 | -0.57 |
| 21 | 72.0 | 0.31 | -0.93 | -0.62 |
| 22 | 75.6 | 0.30 | -0.97 | -0.67 |
| 23 | 79.2 | 0.29 | -1.02 | -0.73 |
| 24 | 82.8 | 0.29 | -1.07 | -0.78 |
| 25 | 86.4 | 0.23 | -1.11 | -0.88 |
| 26 | 90.0 | 0.23 | -1.16 | -0.93 |
| 27 | 93.6 | 0.22 | -1.21 | -0.99 |
| 28 | 97.2 | 0.15 | -1.25 | -1.10 |
| 29 | 100.8 | 0.14 | -1.30 | -1.16 |
| 30 | 104.4 | 0.09 | -1.34 | -1.25 |
| 31 | 108.0 | 0.01 | -1.39 | -1.38 |
| 32 | 111.6 | -0.02 | -1.44 | -1.46 |
| 33 | 115.2 | -0.04 | -1.48 | -1.52 |
| 34 | 118.8 | -0.09 | -1.53 | -1.62 |
| 35 | 122.4 | -0.09 | -1.58 | -1.67 |
| 36 | 126.0 | -0.07 | -1.62 | -1.69 |
| 37 | 129.6 | -0.08 | -1.67 | -1.75 |
| 38 | 133.2 | -0.05 | -1.72 | -1.77 |
| 39 | 136.8 | -0.03 | -1.76 | -1.79 |
| 40 | 140.4 | -0.10 | -1.81 | -1.91 |
| 41 | 144.0 | -0.11 | -1.85 | -1.96 |
| 42 | 147.6 | -0.10 | -1.90 | -2.00 |
| 43 | 151.2 | -0.20 | -1.95 | -2.15 |

2144+00, MSU St. 30

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.01 | -0.05 | -0.04 |
| 3 | 7.2 | 0.01 | -0.10 | -0.09 |
| 4 | 10.8 | 0.06 | -0.16 | -0.10 |
| 5 | 14.4 | 0.07 | -0.21 | -0.14 |
| 6 | 18.0 | 0.05 | -0.26 | -0.21 |
| 7 | 21.6 | 0.06 | -0.31 | -0.25 |
| 8 | 25.2 | 0.03 | -0.36 | -0.33 |
| 9 | 28.8 | 0.00 | -0.41 | -0.41 |
| 10 | 32.4 | -0.04 | -0.47 | -0.51 |
| 11 | 36.0 | -0.01 | -0.52 | -0.53 |
| 12 | 39.6 | -0.02 | -0.57 | -0.59 |
| 13 | 43.2 | 0.01 | -0.62 | -0.61 |
| 14 | 46.8 | 0.04 | -0.67 | -0.63 |
| 15 | 50.4 | 0.07 | -0.73 | -0.66 |
| 16 | 54.0 | 0.16 | -0.78 | -0.62 |
| 17 | 57.6 | 0.21 | -0.83 | -0.62 |
| 18 | 61.2 | 0.24 | -0.88 | -0.64 |
| 19 | 64.8 | 0.25 | -0.93 | -0.68 |
| 20 | 68.4 | 0.28 | -0.98 | -0.70 |
| 21 | 72.0 | 0.30 | -1.04 | -0.74 |
| 22 | 75.6 | 0.30 | -1.09 | -0.79 |
| 23 | 79.2 | 0.30 | -1.14 | -0.84 |
| 24 | 82.8 | 0.31 | -1.19 | -0.88 |
| 25 | 86.4 | 0.29 | -1.24 | -0.95 |
| 26 | 90.0 | 0.30 | -1.30 | -1.00 |
| 27 | 93.6 | 0.21 | -1.35 | -1.14 |
| 28 | 97.2 | 0.18 | -1.40 | -1.22 |
| 29 | 100.8 | 0.16 | -1.45 | -1.29 |
| 30 | 104.4 | 0.11 | -1.50 | -1.39 |
| 31 | 108.0 | 0.07 | -1.55 | -1.48 |
| 32 | 111.6 | 0.08 | -1.61 | -1.53 |
| 33 | 115.2 | 0.06 | -1.66 | -1.60 |
| 34 | 118.8 | 0.07 | -1.71 | -1.64 |
| 35 | 122.4 | 0.12 | -1.76 | -1.64 |
| 36 | 126.0 | 0.18 | -1.81 | -1.63 |
| 37 | 129.6 | 0.14 | -1.87 | -1.73 |
| 38 | 133.2 | 0.13 | -1.92 | -1.79 |
| 39 | 136.8 | 0.13 | -1.97 | -1.84 |
| 40 | 140.4 | 0.09 | -2.02 | -1.93 |
| 41 | 144.0 | 0.10 | -2.07 | -1.97 |
| 42 | 147.6 | -0.03 | -2.12 | -2.15 |
| 43 | 151.2 | -0.16 | -2.18 | -2.34 |

Table 44.3: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2150+00, MSU St. 31

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.03 | -0.05 | -0.02 |
| 3 | 7.2 | 0.03 | -0.09 | -0.06 |
| 4 | 10.8 | 0.06 | -0.14 | -0.08 |
| 5 | 14.4 | 0.08 | -0.19 | -0.11 |
| 6 | 18.0 | 0.06 | -0.23 | -0.17 |
| 7 | 21.6 | 0.06 | -0.28 | -0.22 |
| 8 | 25.2 | 0.07 | -0.32 | -0.25 |
| 9 | 28.8 | 0.05 | -0.37 | -0.32 |
| 10 | 32.4 | 0.04 | -0.42 | -0.38 |
| 11 | 36.0 | 0.03 | -0.46 | -0.43 |
| 12 | 39.6 | 0.04 | -0.51 | -0.47 |
| 13 | 43.2 | 0.07 | -0.56 | -0.49 |
| 14 | 46.8 | 0.07 | -0.60 | -0.53 |
| 15 | 50.4 | 0.12 | -0.65 | -0.53 |
| 16 | 54.0 | 0.19 | -0.70 | -0.51 |
| 17 | 57.6 | 0.25 | -0.74 | -0.49 |
| 18 | 61.2 | 0.29 | -0.79 | -0.50 |
| 19 | 64.8 | 0.28 | -0.83 | -0.55 |
| 20 | 68.4 | 0.33 | -0.88 | -0.55 |
| 21 | 72.0 | 0.35 | -0.93 | -0.58 |
| 22 | 75.6 | 0.34 | -0.97 | -0.63 |
| 23 | 79.2 | 0.37 | -1.02 | -0.65 |
| 24 | 82.8 | 0.40 | -1.07 | -0.67 |
| 25 | 86.4 | 0.40 | -1.11 | -0.71 |
| 26 | 90.0 | 0.31 | -1.16 | -0.85 |
| 27 | 93.6 | 0.27 | -1.21 | -0.94 |
| 28 | 97.2 | 0.18 | -1.25 | -1.07 |
| 29 | 100.8 | 0.12 | -1.30 | -1.18 |
| 30 | 104.4 | 0.11 | -1.34 | -1.23 |
| 31 | 108.0 | 0.10 | -1.39 | -1.29 |
| 32 | 111.6 | 0.12 | -1.44 | -1.32 |
| 33 | 115.2 | 0.16 | -1.48 | -1.32 |
| 34 | 118.8 | 0.17 | -1.53 | -1.36 |
| 35 | 122.4 | 0.22 | -1.58 | -1.36 |
| 36 | 126.0 | 0.30 | -1.62 | -1.32 |
| 37 | 129.6 | 0.32 | -1.67 | -1.35 |
| 38 | 133.2 | 0.30 | -1.72 | -1.42 |
| 39 | 136.8 | 0.27 | -1.76 | -1.49 |
| 40 | 140.4 | 0.27 | -1.81 | -1.54 |
| 41 | 144.0 | 0.17 | -1.85 | -1.68 |
| 42 | 147.6 | 0.07 | -1.90 | -1.83 |
| 43 | 151.2 | -0.06 | -1.95 | -2.01 |

2154+00, MSU St. 32

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.08 | -0.05 | 0.03 |
| 3 | 7.2 | 0.09 | -0.10 | -0.01 |
| 4 | 10.8 | 0.12 | -0.15 | -0.03 |
| 5 | 14.4 | 0.17 | -0.20 | -0.03 |
| 6 | 18.0 | 0.13 | -0.25 | -0.12 |
| 7 | 21.6 | 0.11 | -0.29 | -0.18 |
| 8 | 25.2 | 0.12 | -0.34 | -0.22 |
| 9 | 28.8 | 0.09 | -0.39 | -0.30 |
| 10 | 32.4 | 0.08 | -0.44 | -0.36 |
| 11 | 36.0 | 0.09 | -0.49 | -0.40 |
| 12 | 39.6 | 0.11 | -0.54 | -0.43 |
| 13 | 43.2 | 0.12 | -0.59 | -0.47 |
| 14 | 46.8 | 0.19 | -0.64 | -0.45 |
| 15 | 50.4 | 0.27 | -0.69 | -0.42 |
| 16 | 54.0 | 0.30 | -0.74 | -0.44 |
| 17 | 57.6 | 0.34 | -0.79 | -0.45 |
| 18 | 61.2 | 0.36 | -0.83 | -0.47 |
| 19 | 64.8 | 0.35 | -0.88 | -0.53 |
| 20 | 68.4 | 0.38 | -0.93 | -0.55 |
| 21 | 72.0 | 0.39 | -0.98 | -0.59 |
| 22 | 75.6 | 0.37 | -1.03 | -0.66 |
| 23 | 79.2 | 0.39 | -1.08 | -0.69 |
| 24 | 82.8 | 0.38 | -1.13 | -0.75 |
| 25 | 86.4 | 0.35 | -1.18 | -0.83 |
| 26 | 90.0 | 0.32 | -1.23 | -0.91 |
| 27 | 93.6 | 0.29 | -1.28 | -0.99 |
| 28 | 97.2 | 0.21 | -1.33 | -1.12 |
| 29 | 100.8 | 0.21 | -1.37 | -1.16 |
| 30 | 104.4 | 0.20 | -1.42 | -1.22 |
| 31 | 108.0 | 0.19 | -1.47 | -1.28 |
| 32 | 111.6 | 0.20 | -1.52 | -1.32 |
| 33 | 115.2 | 0.21 | -1.57 | -1.36 |
| 34 | 118.8 | 0.23 | -1.62 | -1.39 |
| 35 | 122.4 | 0.25 | -1.67 | -1.42 |
| 36 | 126.0 | 0.25 | -1.72 | -1.47 |
| 37 | 129.6 | 0.22 | -1.77 | -1.55 |
| 38 | 133.2 | 0.24 | -1.82 | -1.58 |
| 39 | 136.8 | 0.27 | -1.87 | -1.60 |
| 40 | 140.4 | 0.29 | -1.91 | -1.62 |
| 41 | 144.0 | 0.29 | -1.96 | -1.67 |
| 42 | 147.6 | 0.23 | -2.01 | -1.78 |
| 43 | 151.2 | 0.09 | -2.06 | -1.97 |

Table 44.4: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2160+00, MSU St. 33

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.06 | -0.06 | 0.00 |
| 3 | 7.2 | 0.08 | -0.11 | -0.03 |
| 4 | 10.8 | 0.15 | -0.17 | -0.02 |
| 5 | 14.4 | 0.17 | -0.23 | -0.06 |
| 6 | 18.0 | 0.16 | -0.29 | -0.13 |
| 7 | 21.6 | 0.15 | -0.34 | -0.19 |
| 8 | 25.2 | 0.16 | -0.40 | -0.24 |
| 9 | 28.8 | 0.17 | -0.46 | -0.29 |
| 10 | 32.4 | 0.16 | -0.52 | -0.36 |
| 11 | 36.0 | 0.20 | -0.57 | -0.37 |
| 12 | 39.6 | 0.20 | -0.63 | -0.43 |
| 13 | 43.2 | 0.21 | -0.69 | -0.48 |
| 14 | 46.8 | 0.28 | -0.74 | -0.46 |
| 15 | 50.4 | 0.29 | -0.80 | -0.51 |
| 16 | 54.0 | 0.32 | -0.86 | -0.54 |
| 17 | 57.6 | 0.36 | -0.92 | -0.56 |
| 18 | 61.2 | 0.39 | -0.97 | -0.58 |
| 19 | 64.8 | 0.38 | -1.03 | -0.65 |
| 20 | 68.4 | 0.41 | -1.09 | -0.68 |
| 21 | 72.0 | 0.46 | -1.15 | -0.69 |
| 22 | 75.6 | 0.45 | -1.20 | -0.75 |
| 23 | 79.2 | 0.48 | -1.26 | -0.78 |
| 24 | 82.8 | 0.49 | -1.32 | -0.83 |
| 25 | 86.4 | 0.40 | -1.37 | -0.97 |
| 26 | 90.0 | 0.40 | -1.43 | -1.03 |
| 27 | 93.6 | 0.34 | -1.49 | -1.15 |
| 28 | 97.2 | 0.29 | -1.55 | -1.26 |
| 29 | 100.8 | 0.30 | -1.60 | -1.30 |
| 30 | 104.4 | 0.29 | -1.66 | -1.37 |
| 31 | 108.0 | 0.29 | -1.72 | -1.43 |
| 32 | 111.6 | 0.28 | -1.78 | -1.50 |
| 33 | 115.2 | 0.28 | -1.83 | -1.55 |
| 34 | 118.8 | 0.27 | -1.89 | -1.62 |
| 35 | 122.4 | 0.29 | -1.95 | -1.66 |
| 36 | 126.0 | 0.31 | -2.00 | -1.69 |
| 37 | 129.6 | 0.28 | -2.06 | -1.78 |
| 38 | 133.2 | 0.29 | -2.12 | -1.83 |
| 39 | 136.8 | 0.28 | -2.18 | -1.90 |
| 40 | 140.4 | 0.22 | -2.23 | -2.01 |
| 41 | 144.0 | 0.22 | -2.29 | -2.07 |
| 42 | 147.6 | 0.09 | -2.35 | -2.26 |
| 43 | 151.2 | -0.02 | -2.41 | -2.43 |

2164+00, MSU St. 34

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.06 | -0.05 | 0.01 |
| 3 | 7.2 | 0.06 | -0.10 | -0.04 |
| 4 | 10.8 | 0.08 | -0.16 | -0.08 |
| 5 | 14.4 | 0.09 | -0.21 | -0.12 |
| 6 | 18.0 | 0.07 | -0.26 | -0.19 |
| 7 | 21.6 | 0.09 | -0.31 | -0.22 |
| 8 | 25.2 | 0.10 | -0.36 | -0.26 |
| 9 | 28.8 | 0.10 | -0.41 | -0.31 |
| 10 | 32.4 | 0.13 | -0.47 | -0.34 |
| 11 | 36.0 | 0.16 | -0.52 | -0.36 |
| 12 | 39.6 | 0.16 | -0.57 | -0.41 |
| 13 | 43.2 | 0.21 | -0.62 | -0.41 |
| 14 | 46.8 | 0.26 | -0.67 | -0.41 |
| 15 | 50.4 | 0.28 | -0.73 | -0.45 |
| 16 | 54.0 | 0.33 | -0.78 | -0.45 |
| 17 | 57.6 | 0.38 | -0.83 | -0.45 |
| 18 | 61.2 | 0.40 | -0.88 | -0.48 |
| 19 | 64.8 | 0.45 | -0.93 | -0.48 |
| 20 | 68.4 | 0.50 | -0.98 | -0.48 |
| 21 | 72.0 | 0.51 | -1.04 | -0.53 |
| 22 | 75.6 | 0.54 | -1.09 | -0.55 |
| 23 | 79.2 | 0.55 | -1.14 | -0.59 |
| 24 | 82.8 | 0.51 | -1.19 | -0.68 |
| 25 | 86.4 | 0.50 | -1.24 | -0.74 |
| 26 | 90.0 | 0.45 | -1.30 | -0.85 |
| 27 | 93.6 | 0.41 | -1.35 | -0.94 |
| 28 | 97.2 | 0.40 | -1.40 | -1.00 |
| 29 | 100.8 | 0.40 | -1.45 | -1.05 |
| 30 | 104.4 | 0.38 | -1.50 | -1.12 |
| 31 | 108.0 | 0.34 | -1.55 | -1.21 |
| 32 | 111.6 | 0.37 | -1.61 | -1.24 |
| 33 | 115.2 | 0.39 | -1.66 | -1.27 |
| 34 | 118.8 | 0.38 | -1.71 | -1.33 |
| 35 | 122.4 | 0.41 | -1.76 | -1.35 |
| 36 | 126.0 | 0.45 | -1.81 | -1.36 |
| 37 | 129.6 | 0.43 | -1.87 | -1.44 |
| 38 | 133.2 | 0.43 | -1.92 | -1.49 |
| 39 | 136.8 | 0.40 | -1.97 | -1.57 |
| 40 | 140.4 | 0.35 | -2.02 | -1.67 |
| 41 | 144.0 | 0.24 | -2.07 | -1.83 |
| 42 | 147.6 | 0.13 | -2.12 | -1.99 |
| 43 | 151.2 | 0.01 | -2.18 | -2.17 |

Table 44.5: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2170+00, MSU St. 35

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.04 | -0.04 | -0.00 |
| 3 | 7.2 | 0.10 | -0.08 | 0.02 |
| 4 | 10.8 | 0.16 | -0.12 | 0.04 |
| 5 | 14.4 | 0.18 | -0.16 | 0.02 |
| 6 | 18.0 | 0.19 | -0.20 | -0.01 |
| 7 | 21.6 | 0.23 | -0.25 | -0.02 |
| 8 | 25.2 | 0.21 | -0.29 | -0.08 |
| 9 | 28.8 | 0.26 | -0.33 | -0.07 |
| 10 | 32.4 | 0.28 | -0.37 | -0.09 |
| 11 | 36.0 | 0.27 | -0.41 | -0.14 |
| 12 | 39.6 | 0.30 | -0.45 | -0.15 |
| 13 | 43.2 | 0.32 | -0.49 | -0.17 |
| 14 | 46.8 | 0.33 | -0.53 | -0.20 |
| 15 | 50.4 | 0.36 | -0.57 | -0.21 |
| 16 | 54.0 | 0.39 | -0.61 | -0.22 |
| 17 | 57.6 | 0.41 | -0.65 | -0.24 |
| 18 | 61.2 | 0.46 | -0.70 | -0.24 |
| 19 | 64.8 | 0.52 | -0.74 | -0.22 |
| 20 | 68.4 | 0.57 | -0.78 | -0.21 |
| 21 | 72.0 | 0.58 | -0.82 | -0.24 |
| 22 | 75.6 | 0.63 | -0.86 | -0.23 |
| 23 | 79.2 | 0.66 | -0.90 | -0.24 |
| 24 | 82.8 | 0.67 | -0.94 | -0.27 |
| 25 | 86.4 | 0.65 | -0.98 | -0.33 |
| 26 | 90.0 | 0.65 | -1.02 | -0.37 |
| 27 | 93.6 | 0.59 | -1.06 | -0.47 |
| 28 | 97.2 | 0.57 | -1.10 | -0.53 |
| 29 | 100.8 | 0.58 | -1.15 | -0.57 |
| 30 | 104.4 | 0.52 | -1.19 | -0.67 |
| 31 | 108.0 | 0.51 | -1.23 | -0.72 |
| 32 | 111.6 | 0.50 | -1.27 | -0.77 |
| 33 | 115.2 | 0.46 | -1.31 | -0.85 |
| 34 | 118.8 | 0.46 | -1.35 | -0.89 |
| 35 | 122.4 | 0.45 | -1.39 | -0.94 |
| 36 | 126.0 | 0.46 | -1.43 | -0.97 |
| 37 | 129.6 | 0.48 | -1.47 | -0.99 |
| 38 | 133.2 | 0.49 | -1.51 | -1.02 |
| 39 | 136.8 | 0.48 | -1.55 | -1.07 |
| 40 | 140.4 | 0.46 | -1.60 | -1.14 |
| 41 | 144.0 | 0.45 | -1.64 | -1.19 |
| 42 | 147.6 | 0.27 | -1.68 | -1.41 |
| 43 | 151.2 | 0.21 | -1.72 | -1.51 |

2176+00, MSU St. 36

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.00 | -0.04 | -0.04 |
| 3 | 7.2 | 0.05 | -0.08 | -0.03 |
| 4 | 10.8 | 0.09 | -0.11 | -0.02 |
| 5 | 14.4 | 0.11 | -0.15 | -0.04 |
| 6 | 18.0 | 0.13 | -0.19 | -0.06 |
| 7 | 21.6 | 0.11 | -0.23 | -0.12 |
| 8 | 25.2 | 0.10 | -0.27 | -0.17 |
| 9 | 28.8 | 0.07 | -0.31 | -0.24 |
| 10 | 32.4 | 0.08 | -0.34 | -0.26 |
| 11 | 36.0 | 0.10 | -0.38 | -0.28 |
| 12 | 39.6 | 0.13 | -0.42 | -0.29 |
| 13 | 43.2 | 0.19 | -0.46 | -0.27 |
| 14 | 46.8 | 0.26 | -0.50 | -0.24 |
| 15 | 50.4 | 0.33 | -0.53 | -0.20 |
| 16 | 54.0 | 0.44 | -0.57 | -0.13 |
| 17 | 57.6 | 0.54 | -0.61 | -0.07 |
| 18 | 61.2 | 0.57 | -0.65 | -0.08 |
| 19 | 64.8 | 0.60 | -0.69 | -0.09 |
| 20 | 68.4 | 0.61 | -0.73 | -0.12 |
| 21 | 72.0 | 0.61 | -0.76 | -0.15 |
| 22 | 75.6 | 0.64 | -0.80 | -0.16 |
| 23 | 79.2 | 0.67 | -0.84 | -0.17 |
| 24 | 82.8 | 0.65 | -0.88 | -0.23 |
| 25 | 86.4 | 0.65 | -0.92 | -0.27 |
| 26 | 90.0 | 0.64 | -0.95 | -0.31 |
| 27 | 93.6 | 0.57 | -0.99 | -0.42 |
| 28 | 97.2 | 0.52 | -1.03 | -0.51 |
| 29 | 100.8 | 0.50 | -1.07 | -0.57 |
| 30 | 104.4 | 0.44 | -1.11 | -0.67 |
| 31 | 108.0 | 0.45 | -1.15 | -0.70 |
| 32 | 111.6 | 0.47 | -1.18 | -0.71 |
| 33 | 115.2 | 0.47 | -1.22 | -0.75 |
| 34 | 118.8 | 0.52 | -1.26 | -0.74 |
| 35 | 122.4 | 0.57 | -1.30 | -0.73 |
| 36 | 126.0 | 0.62 | -1.34 | -0.72 |
| 37 | 129.6 | 0.70 | -1.37 | -0.67 |
| 38 | 133.2 | 0.80 | -1.41 | -0.61 |
| 39 | 136.8 | 0.80 | -1.45 | -0.65 |
| 40 | 140.4 | 0.78 | -1.49 | -0.71 |
| 41 | 144.0 | 0.70 | -1.53 | -0.83 |
| 42 | 147.6 | 0.57 | -1.57 | -1.00 |
| 43 | 151.2 | 0.37 | -1.60 | -1.23 |

Table 44.6: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2180+00, MSU St. 37

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.08 | -0.06 | 0.02 |
| 3 | 7.2 | 0.13 | -0.12 | 0.01 |
| 4 | 10.8 | 0.19 | -0.18 | 0.01 |
| 5 | 14.4 | 0.20 | -0.24 | -0.04 |
| 6 | 18.0 | 0.14 | -0.30 | -0.16 |
| 7 | 21.6 | 0.00 | -0.36 | -0.36 |
| 8 | 25.2 | -0.07 | -0.42 | -0.49 |
| 9 | 28.8 | -0.09 | -0.48 | -0.57 |
| 10 | 32.4 | -0.05 | -0.54 | -0.59 |
| 11 | 36.0 | 0.00 | -0.60 | -0.60 |
| 12 | 39.6 | 0.03 | -0.66 | -0.63 |
| 13 | 43.2 | 0.12 | -0.72 | -0.60 |
| 14 | 46.8 | 0.26 | -0.78 | -0.52 |
| 15 | 50.4 | 0.38 | -0.84 | -0.46 |
| 16 | 54.0 | 0.54 | -0.90 | -0.36 |
| 17 | 57.6 | 0.68 | -0.96 | -0.28 |
| 18 | 61.2 | 0.70 | -1.02 | -0.32 |
| 19 | 64.8 | 0.70 | -1.08 | -0.38 |
| 20 | 68.4 | 0.70 | -1.14 | -0.44 |
| 21 | 72.0 | 0.69 | -1.20 | -0.51 |
| 22 | 75.6 | 0.67 | -1.26 | -0.59 |
| 23 | 79.2 | 0.68 | -1.32 | -0.64 |
| 24 | 82.8 | 0.67 | -1.38 | -0.71 |
| 25 | 86.4 | 0.63 | -1.44 | -0.81 |
| 26 | 90.0 | 0.60 | -1.50 | -0.90 |
| 27 | 93.6 | 0.50 | -1.56 | -1.06 |
| 28 | 97.2 | 0.37 | -1.62 | -1.25 |
| 29 | 100.8 | 0.31 | -1.68 | -1.37 |
| 30 | 104.4 | 0.27 | -1.74 | -1.47 |
| 31 | 108.0 | 0.30 | -1.80 | -1.50 |
| 32 | 111.6 | 0.34 | -1.86 | -1.52 |
| 33 | 115.2 | 0.38 | -1.92 | -1.54 |
| 34 | 118.8 | 0.49 | -1.98 | -1.49 |
| 35 | 122.4 | 0.60 | -2.04 | -1.44 |
| 36 | 126.0 | 0.76 | -2.10 | -1.34 |
| 37 | 129.6 | 0.80 | -2.16 | -1.36 |
| 38 | 133.2 | 0.69 | -2.22 | -1.53 |
| 39 | 136.8 | 0.60 | -2.28 | -1.68 |
| 40 | 140.4 | 0.43 | -2.34 | -1.91 |
| 41 | 144.0 | 0.30 | -2.40 | -2.10 |
| 42 | 147.6 | 0.11 | -2.46 | -2.35 |
| 43 | 151.2 | -0.05 | -2.52 | -2.57 |

2184+00, MSU St. 38

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.05 | 0.05 |
| 3 | 7.2 | 0.16 | -0.10 | 0.06 |
| 4 | 10.8 | 0.21 | -0.15 | 0.06 |
| 5 | 14.4 | 0.23 | -0.20 | 0.03 |
| 6 | 18.0 | 0.20 | -0.25 | -0.05 |
| 7 | 21.6 | 0.07 | -0.29 | -0.22 |
| 8 | 25.2 | -0.06 | -0.34 | -0.40 |
| 9 | 28.8 | -0.13 | -0.39 | -0.52 |
| 10 | 32.4 | -0.08 | -0.44 | -0.52 |
| 11 | 36.0 | -0.01 | -0.49 | -0.50 |
| 12 | 39.6 | -0.07 | -0.54 | -0.61 |
| 13 | 43.2 | 0.02 | -0.59 | -0.57 |
| 14 | 46.8 | 0.13 | -0.64 | -0.51 |
| 15 | 50.4 | 0.25 | -0.69 | -0.44 |
| 16 | 54.0 | 0.40 | -0.74 | -0.34 |
| 17 | 57.6 | 0.56 | -0.79 | -0.23 |
| 18 | 61.2 | 0.60 | -0.83 | -0.23 |
| 19 | 64.8 | 0.61 | -0.88 | -0.27 |
| 20 | 68.4 | 0.63 | -0.93 | -0.30 |
| 21 | 72.0 | 0.59 | -0.98 | -0.39 |
| 22 | 75.6 | 0.59 | -1.03 | -0.44 |
| 23 | 79.2 | 0.57 | -1.08 | -0.51 |
| 24 | 82.8 | 0.57 | -1.13 | -0.56 |
| 25 | 86.4 | 0.59 | -1.18 | -0.59 |
| 26 | 90.0 | 0.54 | -1.23 | -0.69 |
| 27 | 93.6 | 0.43 | -1.28 | -0.85 |
| 28 | 97.2 | 0.26 | -1.33 | -1.07 |
| 29 | 100.8 | 0.14 | -1.37 | -1.23 |
| 30 | 104.4 | 0.10 | -1.42 | -1.32 |
| 31 | 108.0 | 0.10 | -1.47 | -1.37 |
| 32 | 111.6 | 0.13 | -1.52 | -1.39 |
| 33 | 115.2 | 0.15 | -1.57 | -1.42 |
| 34 | 118.8 | 0.20 | -1.62 | -1.42 |
| 35 | 122.4 | 0.34 | -1.67 | -1.33 |
| 36 | 126.0 | 0.52 | -1.72 | -1.20 |
| 37 | 129.6 | 0.65 | -1.77 | -1.12 |
| 38 | 133.2 | 0.70 | -1.82 | -1.12 |
| 39 | 136.8 | 0.60 | -1.87 | -1.27 |
| 40 | 140.4 | 0.40 | -1.91 | -1.51 |
| 41 | 144.0 | 0.29 | -1.96 | -1.67 |
| 42 | 147.6 | 0.12 | -2.01 | -1.89 |
| 43 | 151.2 | -0.03 | -2.06 | -2.09 |

Table 44.7: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2188+00, MSU St. 39

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.04 | -0.03 | 0.01 |
| 3 | 7.2 | 0.13 | -0.07 | 0.06 |
| 4 | 10.8 | 0.28 | -0.10 | 0.18 |
| 5 | 14.4 | 0.35 | -0.13 | 0.22 |
| 6 | 18.0 | 0.30 | -0.16 | 0.14 |
| 7 | 21.6 | 0.11 | -0.20 | -0.09 |
| 8 | 25.2 | 0.00 | -0.23 | -0.23 |
| 9 | 28.8 | -0.01 | -0.26 | -0.27 |
| 10 | 32.4 | 0.01 | -0.29 | -0.28 |
| 11 | 36.0 | -0.02 | -0.33 | -0.35 |
| 12 | 39.6 | -0.07 | -0.36 | -0.43 |
| 13 | 43.2 | 0.07 | -0.39 | -0.32 |
| 14 | 46.8 | 0.16 | -0.43 | -0.27 |
| 15 | 50.4 | 0.19 | -0.46 | -0.27 |
| 16 | 54.0 | 0.30 | -0.49 | -0.19 |
| 17 | 57.6 | 0.50 | -0.52 | -0.02 |
| 18 | 61.2 | 0.55 | -0.56 | -0.01 |
| 19 | 64.8 | 0.57 | -0.59 | -0.02 |
| 20 | 68.4 | 0.58 | -0.62 | -0.04 |
| 21 | 72.0 | 0.54 | -0.65 | -0.11 |
| 22 | 75.6 | 0.54 | -0.69 | -0.15 |
| 23 | 79.2 | 0.51 | -0.72 | -0.21 |
| 24 | 82.8 | 0.46 | -0.75 | -0.29 |
| 25 | 86.4 | 0.45 | -0.79 | -0.34 |
| 26 | 90.0 | 0.40 | -0.82 | -0.42 |
| 27 | 93.6 | 0.20 | -0.85 | -0.65 |
| 28 | 97.2 | 0.01 | -0.88 | -0.87 |
| 29 | 100.8 | -0.11 | -0.92 | -1.03 |
| 30 | 104.4 | -0.16 | -0.95 | -1.11 |
| 31 | 108.0 | -0.19 | -0.98 | -1.17 |
| 32 | 111.6 | -0.21 | -1.01 | -1.22 |
| 33 | 115.2 | -0.20 | -1.05 | -1.25 |
| 34 | 118.8 | -0.11 | -1.08 | -1.19 |
| 35 | 122.4 | -0.05 | -1.11 | -1.16 |
| 36 | 126.0 | 0.05 | -1.15 | -1.10 |
| 37 | 129.6 | 0.18 | -1.18 | -1.00 |
| 38 | 133.2 | 0.30 | -1.21 | -0.91 |
| 39 | 136.8 | 0.36 | -1.24 | -0.88 |
| 40 | 140.4 | 0.31 | -1.28 | -0.97 |
| 41 | 144.0 | 0.20 | -1.31 | -1.11 |
| 42 | 147.6 | 0.05 | -1.34 | -1.29 |
| 43 | 151.2 | -0.06 | -1.37 | -1.43 |

2192+00, MSU St. 40

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.09 | -0.05 | 0.04 |
| 3 | 7.2 | 0.09 | -0.10 | -0.01 |
| 4 | 10.8 | 0.01 | -0.16 | -0.15 |
| 5 | 14.4 | -0.10 | -0.21 | -0.31 |
| 6 | 18.0 | -0.19 | -0.26 | -0.45 |
| 7 | 21.6 | -0.19 | -0.31 | -0.50 |
| 8 | 25.2 | -0.15 | -0.36 | -0.51 |
| 9 | 28.8 | -0.12 | -0.41 | -0.53 |
| 10 | 32.4 | -0.09 | -0.47 | -0.56 |
| 11 | 36.0 | -0.01 | -0.52 | -0.53 |
| 12 | 39.6 | 0.09 | -0.57 | -0.48 |
| 13 | 43.2 | 0.30 | -0.62 | -0.32 |
| 14 | 46.8 | 0.51 | -0.67 | -0.16 |
| 15 | 50.4 | 0.57 | -0.73 | -0.16 |
| 16 | 54.0 | 0.59 | -0.78 | -0.19 |
| 17 | 57.6 | 0.59 | -0.83 | -0.24 |
| 18 | 61.2 | 0.58 | -0.88 | -0.30 |
| 19 | 64.8 | 0.54 | -0.93 | -0.39 |
| 20 | 68.4 | 0.51 | -0.98 | -0.47 |
| 21 | 72.0 | 0.50 | -1.04 | -0.54 |
| 22 | 75.6 | 0.51 | -1.09 | -0.58 |
| 23 | 79.2 | 0.48 | -1.14 | -0.66 |
| 24 | 82.8 | 0.40 | -1.19 | -0.79 |
| 25 | 86.4 | 0.26 | -1.24 | -0.98 |
| 26 | 90.0 | 0.15 | -1.30 | -1.15 |
| 27 | 93.6 | 0.10 | -1.35 | -1.25 |
| 28 | 97.2 | 0.09 | -1.40 | -1.31 |
| 29 | 100.8 | 0.11 | -1.45 | -1.34 |
| 30 | 104.4 | 0.17 | -1.50 | -1.33 |
| 31 | 108.0 | 0.19 | -1.55 | -1.36 |
| 32 | 111.6 | 0.28 | -1.61 | -1.33 |
| 33 | 115.2 | 0.41 | -1.66 | -1.25 |
| 34 | 118.8 | 0.61 | -1.71 | -1.10 |
| 35 | 122.4 | 0.73 | -1.76 | -1.03 |
| 36 | 126.0 | 0.72 | -1.81 | -1.09 |
| 37 | 129.6 | 0.59 | -1.87 | -1.28 |
| 38 | 133.2 | 0.42 | -1.92 | -1.50 |
| 39 | 136.8 | 0.40 | -1.97 | -1.57 |
| 40 | 140.4 | 0.25 | -2.02 | -1.77 |
| 41 | 144.0 | 0.20 | -2.07 | -1.87 |
| 42 | 147.6 | 0.12 | -2.12 | -2.00 |
| 43 | 151.2 | 0.00 | -2.18 | -2.18 |
| 44 | 154.8 | -0.12 | -2.23 | -2.35 |

Table 44.8: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2196+00, MSU St. 41

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.04 | 0.06 |
| 3 | 7.2 | 0.20 | -0.09 | 0.11 |
| 4 | 10.8 | 0.29 | -0.13 | 0.16 |
| 5 | 14.4 | 0.34 | -0.17 | 0.17 |
| 6 | 18.0 | 0.35 | -0.22 | 0.13 |
| 7 | 21.6 | 0.34 | -0.26 | 0.08 |
| 8 | 25.2 | 0.27 | -0.31 | -0.04 |
| 9 | 28.8 | 0.03 | -0.35 | -0.32 |
| 10 | 32.4 | -0.13 | -0.39 | -0.52 |
| 11 | 36.0 | -0.17 | -0.44 | -0.61 |
| 12 | 39.6 | -0.13 | -0.48 | -0.61 |
| 13 | 43.2 | -0.14 | -0.52 | -0.66 |
| 14 | 46.8 | -0.13 | -0.57 | -0.70 |
| 15 | 50.4 | -0.06 | -0.61 | -0.67 |
| 16 | 54.0 | 0.08 | -0.65 | -0.57 |
| 17 | 57.6 | 0.20 | -0.70 | -0.50 |
| 18 | 61.2 | 0.38 | -0.74 | -0.36 |
| 19 | 64.8 | 0.56 | -0.79 | -0.23 |
| 20 | 68.4 | 0.63 | -0.83 | -0.20 |
| 21 | 72.0 | 0.61 | -0.87 | -0.26 |
| 22 | 75.6 | 0.58 | -0.92 | -0.34 |
| 23 | 79.2 | 0.52 | -0.96 | -0.44 |
| 24 | 82.8 | 0.48 | -1.00 | -0.52 |
| 25 | 86.4 | 0.47 | -1.05 | -0.58 |
| 26 | 90.0 | 0.43 | -1.09 | -0.66 |
| 27 | 93.6 | 0.39 | -1.13 | -0.74 |
| 28 | 97.2 | 0.35 | -1.18 | -0.83 |
| 29 | 100.8 | 0.20 | -1.22 | -1.02 |
| 30 | 104.4 | 0.00 | -1.27 | -1.27 |
| 31 | 108.0 | -0.11 | -1.31 | -1.42 |
| 32 | 111.6 | -0.13 | -1.35 | -1.48 |
| 33 | 115.2 | -0.18 | -1.40 | -1.58 |
| 34 | 118.8 | -0.19 | -1.44 | -1.63 |
| 35 | 122.4 | -0.13 | -1.48 | -1.61 |
| 36 | 126.0 | -0.05 | -1.53 | -1.58 |
| 37 | 129.6 | 0.07 | -1.57 | -1.50 |
| 38 | 133.2 | 0.25 | -1.61 | -1.36 |
| 39 | 136.8 | 0.47 | -1.66 | -1.19 |
| 40 | 140.4 | 0.49 | -1.70 | -1.21 |
| 41 | 144.0 | 0.36 | -1.75 | -1.39 |
| 42 | 147.6 | 0.20 | -1.79 | -1.59 |

2200+00, MSU St. 42

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.04 | 0.06 |
| 3 | 7.2 | 0.19 | -0.09 | 0.10 |
| 4 | 10.8 | 0.27 | -0.13 | 0.14 |
| 5 | 14.4 | 0.29 | -0.17 | 0.12 |
| 6 | 18.0 | 0.14 | -0.22 | -0.08 |
| 7 | 21.6 | -0.09 | -0.26 | -0.35 |
| 8 | 25.2 | -0.20 | -0.31 | -0.51 |
| 9 | 28.8 | -0.19 | -0.35 | -0.54 |
| 10 | 32.4 | -0.12 | -0.39 | -0.51 |
| 11 | 36.0 | -0.15 | -0.44 | -0.59 |
| 12 | 39.6 | -0.14 | -0.48 | -0.62 |
| 13 | 43.2 | 0.00 | -0.52 | -0.52 |
| 14 | 46.8 | 0.18 | -0.57 | -0.39 |
| 15 | 50.4 | 0.31 | -0.61 | -0.30 |
| 16 | 54.0 | 0.55 | -0.65 | -0.10 |
| 17 | 57.6 | 0.66 | -0.70 | -0.04 |
| 18 | 61.2 | 0.61 | -0.74 | -0.13 |
| 19 | 64.8 | 0.59 | -0.79 | -0.20 |
| 20 | 68.4 | 0.54 | -0.83 | -0.29 |
| 21 | 72.0 | 0.55 | -0.87 | -0.32 |
| 22 | 75.6 | 0.56 | -0.92 | -0.36 |
| 23 | 79.2 | 0.55 | -0.96 | -0.41 |
| 24 | 82.8 | 0.55 | -1.00 | -0.45 |
| 25 | 86.4 | 0.58 | -1.05 | -0.47 |
| 26 | 90.0 | 0.49 | -1.09 | -0.60 |
| 27 | 93.6 | 0.26 | -1.13 | -0.87 |
| 28 | 97.2 | 0.04 | -1.18 | -1.14 |
| 29 | 100.8 | -0.03 | -1.22 | -1.25 |
| 30 | 104.4 | -0.01 | -1.27 | -1.28 |
| 31 | 108.0 | 0.00 | -1.31 | -1.31 |
| 32 | 111.6 | 0.03 | -1.35 | -1.32 |
| 33 | 115.2 | 0.08 | -1.40 | -1.32 |
| 34 | 118.8 | 0.20 | -1.44 | -1.24 |
| 35 | 122.4 | 0.40 | -1.48 | -1.08 |
| 36 | 126.0 | 0.63 | -1.53 | -0.90 |
| 37 | 129.6 | 0.66 | -1.57 | -0.91 |
| 38 | 133.2 | 0.51 | -1.61 | -1.10 |
| 39 | 136.8 | 0.41 | -1.66 | -1.25 |
| 40 | 140.4 | 0.36 | -1.70 | -1.34 |
| 41 | 144.0 | 0.42 | -1.75 | -1.33 |
| 42 | 147.6 | 0.13 | -1.79 | -1.66 |
| 43 | 151.2 | -0.02 | -1.83 | -1.85 |

Table 44.9: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2208+00, MSU St. 43

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.06 | -0.05 | 0.01 |
| 3 | 7.2 | 0.09 | -0.11 | -0.02 |
| 4 | 10.8 | 0.10 | -0.16 | -0.06 |
| 5 | 14.4 | 0.11 | -0.22 | -0.11 |
| 6 | 18.0 | 0.10 | -0.27 | -0.17 |
| 7 | 21.6 | 0.10 | -0.33 | -0.23 |
| 8 | 25.2 | 0.13 | -0.38 | -0.25 |
| 9 | 28.8 | 0.14 | -0.44 | -0.30 |
| 10 | 32.4 | 0.19 | -0.49 | -0.30 |
| 11 | 36.0 | 0.24 | -0.55 | -0.31 |
| 12 | 39.6 | 0.27 | -0.60 | -0.33 |
| 13 | 43.2 | 0.32 | -0.65 | -0.33 |
| 14 | 46.8 | 0.37 | -0.71 | -0.34 |
| 15 | 50.4 | 0.38 | -0.76 | -0.38 |
| 16 | 54.0 | 0.45 | -0.82 | -0.37 |
| 17 | 57.6 | 0.46 | -0.87 | -0.41 |
| 18 | 61.2 | 0.49 | -0.93 | -0.44 |
| 19 | 64.8 | 0.51 | -0.98 | -0.47 |
| 20 | 68.4 | 0.53 | -1.04 | -0.51 |
| 21 | 72.0 | 0.54 | -1.09 | -0.55 |
| 22 | 75.6 | 0.56 | -1.15 | -0.59 |
| 23 | 79.2 | 0.58 | -1.20 | -0.62 |
| 24 | 82.8 | 0.51 | -1.25 | -0.74 |
| 25 | 86.4 | 0.50 | -1.31 | -0.81 |
| 26 | 90.0 | 0.50 | -1.36 | -0.86 |
| 27 | 93.6 | 0.45 | -1.42 | -0.97 |
| 28 | 97.2 | 0.44 | -1.47 | -1.03 |
| 29 | 100.8 | 0.44 | -1.53 | -1.09 |
| 30 | 104.4 | 0.44 | -1.58 | -1.14 |
| 31 | 108.0 | 0.45 | -1.64 | -1.19 |
| 32 | 111.6 | 0.47 | -1.69 | -1.22 |
| 33 | 115.2 | 0.47 | -1.75 | -1.28 |
| 34 | 118.8 | 0.48 | -1.80 | -1.32 |
| 35 | 122.4 | 0.49 | -1.85 | -1.36 |
| 36 | 126.0 | 0.47 | -1.91 | -1.44 |
| 37 | 129.6 | 0.44 | -1.96 | -1.52 |
| 38 | 133.2 | 0.43 | -2.02 | -1.59 |
| 39 | 136.8 | 0.41 | -2.07 | -1.66 |
| 40 | 140.4 | 0.32 | -2.13 | -1.81 |
| 41 | 144.0 | 0.16 | -2.18 | -2.02 |
| 42 | 147.6 | 0.01 | -2.24 | -2.23 |
| 43 | 151.2 | -0.12 | -2.29 | -2.41 |

2214+00, MSU St. 44

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.07 | -0.05 | 0.02 |
| 3 | 7.2 | 0.10 | -0.10 | -0.00 |
| 4 | 10.8 | 0.10 | -0.16 | -0.06 |
| 5 | 14.4 | 0.11 | -0.21 | -0.10 |
| 6 | 18.0 | 0.14 | -0.26 | -0.12 |
| 7 | 21.6 | 0.11 | -0.31 | -0.20 |
| 8 | 25.2 | 0.11 | -0.36 | -0.25 |
| 9 | 28.8 | 0.08 | -0.41 | -0.33 |
| 10 | 32.4 | 0.06 | -0.47 | -0.41 |
| 11 | 36.0 | 0.07 | -0.52 | -0.45 |
| 12 | 39.6 | 0.07 | -0.57 | -0.50 |
| 13 | 43.2 | 0.09 | -0.62 | -0.53 |
| 14 | 46.8 | 0.12 | -0.67 | -0.55 |
| 15 | 50.4 | 0.19 | -0.73 | -0.54 |
| 16 | 54.0 | 0.24 | -0.78 | -0.54 |
| 17 | 57.6 | 0.30 | -0.83 | -0.53 |
| 18 | 61.2 | 0.31 | -0.88 | -0.57 |
| 19 | 64.8 | 0.35 | -0.93 | -0.58 |
| 20 | 68.4 | 0.42 | -0.98 | -0.56 |
| 21 | 72.0 | 0.40 | -1.04 | -0.64 |
| 22 | 75.6 | 0.40 | -1.09 | -0.69 |
| 23 | 79.2 | 0.40 | -1.14 | -0.74 |
| 24 | 82.8 | 0.36 | -1.19 | -0.83 |
| 25 | 86.4 | 0.37 | -1.24 | -0.87 |
| 26 | 90.0 | 0.36 | -1.30 | -0.94 |
| 27 | 93.6 | 0.28 | -1.35 | -1.07 |
| 28 | 97.2 | 0.25 | -1.40 | -1.15 |
| 29 | 100.8 | 0.21 | -1.45 | -1.24 |
| 30 | 104.4 | 0.18 | -1.50 | -1.32 |
| 31 | 108.0 | 0.14 | -1.55 | -1.41 |
| 32 | 111.6 | 0.17 | -1.61 | -1.44 |
| 33 | 115.2 | 0.16 | -1.66 | -1.50 |
| 34 | 118.8 | 0.19 | -1.71 | -1.52 |
| 35 | 122.4 | 0.22 | -1.76 | -1.54 |
| 36 | 126.0 | 0.21 | -1.81 | -1.60 |
| 37 | 129.6 | 0.22 | -1.87 | -1.65 |
| 38 | 133.2 | 0.19 | -1.92 | -1.73 |
| 39 | 136.8 | 0.17 | -1.97 | -1.80 |
| 40 | 140.4 | 0.12 | -2.02 | -1.90 |
| 41 | 144.0 | 0.08 | -2.07 | -1.99 |
| 42 | 147.6 | -0.08 | -2.12 | -2.20 |
| 43 | 151.2 | -0.20 | -2.18 | -2.38 |

Table 44.10: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2220+00, MSU St. 45

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.02 | 0.08 |
| 3 | 7.2 | 0.13 | -0.04 | 0.09 |
| 4 | 10.8 | 0.16 | -0.06 | 0.10 |
| 5 | 14.4 | 0.19 | -0.08 | 0.11 |
| 6 | 18.0 | 0.20 | -0.10 | 0.10 |
| 7 | 21.6 | 0.19 | -0.11 | 0.08 |
| 8 | 25.2 | 0.16 | -0.13 | 0.03 |
| 9 | 28.8 | 0.14 | -0.15 | -0.01 |
| 10 | 32.4 | 0.17 | -0.17 | -0.00 |
| 11 | 36.0 | 0.21 | -0.19 | 0.02 |
| 12 | 39.6 | 0.24 | -0.21 | 0.03 |
| 13 | 43.2 | 0.30 | -0.23 | 0.07 |
| 14 | 46.8 | 0.38 | -0.25 | 0.13 |
| 15 | 50.4 | 0.43 | -0.27 | 0.16 |
| 16 | 54.0 | 0.50 | -0.29 | 0.21 |
| 17 | 57.6 | 0.54 | -0.31 | 0.23 |
| 18 | 61.2 | 0.56 | -0.32 | 0.24 |
| 19 | 64.8 | 0.59 | -0.34 | 0.25 |
| 20 | 68.4 | 0.63 | -0.36 | 0.27 |
| 21 | 72.0 | 0.65 | -0.38 | 0.27 |
| 22 | 75.6 | 0.70 | -0.40 | 0.30 |
| 23 | 79.2 | 0.70 | -0.42 | 0.28 |
| 24 | 82.8 | 0.70 | -0.44 | 0.26 |
| 25 | 86.4 | 0.67 | -0.46 | 0.21 |
| 26 | 90.0 | 0.64 | -0.48 | 0.16 |
| 27 | 93.6 | 0.59 | -0.50 | 0.09 |
| 28 | 97.2 | 0.54 | -0.52 | 0.02 |
| 29 | 100.8 | 0.53 | -0.53 | -0.00 |
| 30 | 104.4 | 0.51 | -0.55 | -0.04 |
| 31 | 108.0 | 0.52 | -0.57 | -0.05 |
| 32 | 111.6 | 0.55 | -0.59 | -0.04 |
| 33 | 115.2 | 0.56 | -0.61 | -0.05 |
| 34 | 118.8 | 0.59 | -0.63 | -0.04 |
| 35 | 122.4 | 0.63 | -0.65 | -0.02 |
| 36 | 126.0 | 0.63 | -0.67 | -0.04 |
| 37 | 129.6 | 0.63 | -0.69 | -0.06 |
| 38 | 133.2 | 0.62 | -0.71 | -0.09 |
| 39 | 136.8 | 0.62 | -0.73 | -0.11 |
| 40 | 140.4 | 0.66 | -0.74 | -0.08 |
| 41 | 144.0 | 0.56 | -0.76 | -0.20 |
| 42 | 147.6 | 0.47 | -0.78 | -0.31 |
| 43 | 151.2 | 0.33 | -0.80 | -0.47 |

2226+00, MSU St. 46

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.10 | -0.05 | 0.05 |
| 3 | 7.2 | 0.16 | -0.09 | 0.07 |
| 4 | 10.8 | 0.19 | -0.14 | 0.05 |
| 5 | 14.4 | 0.20 | -0.19 | 0.01 |
| 6 | 18.0 | 0.20 | -0.23 | -0.03 |
| 7 | 21.6 | 0.19 | -0.28 | -0.09 |
| 8 | 25.2 | 0.19 | -0.32 | -0.13 |
| 9 | 28.8 | 0.18 | -0.37 | -0.19 |
| 10 | 32.4 | 0.20 | -0.42 | -0.22 |
| 11 | 36.0 | 0.22 | -0.46 | -0.24 |
| 12 | 39.6 | 0.27 | -0.51 | -0.24 |
| 13 | 43.2 | 0.30 | -0.56 | -0.26 |
| 14 | 46.8 | 0.40 | -0.60 | -0.20 |
| 15 | 50.4 | 0.48 | -0.65 | -0.17 |
| 16 | 54.0 | 0.52 | -0.70 | -0.18 |
| 17 | 57.6 | 0.56 | -0.74 | -0.18 |
| 18 | 61.2 | 0.55 | -0.79 | -0.24 |
| 19 | 64.8 | 0.57 | -0.83 | -0.26 |
| 20 | 68.4 | 0.60 | -0.88 | -0.28 |
| 21 | 72.0 | 0.60 | -0.93 | -0.33 |
| 22 | 75.6 | 0.62 | -0.97 | -0.35 |
| 23 | 79.2 | 0.60 | -1.02 | -0.42 |
| 24 | 82.8 | 0.57 | -1.07 | -0.50 |
| 25 | 86.4 | 0.57 | -1.11 | -0.54 |
| 26 | 90.0 | 0.52 | -1.16 | -0.64 |
| 27 | 93.6 | 0.50 | -1.21 | -0.71 |
| 28 | 97.2 | 0.47 | -1.25 | -0.78 |
| 29 | 100.8 | 0.45 | -1.30 | -0.85 |
| 30 | 104.4 | 0.44 | -1.34 | -0.90 |
| 31 | 108.0 | 0.45 | -1.39 | -0.94 |
| 32 | 111.6 | 0.48 | -1.44 | -0.96 |
| 33 | 115.2 | 0.50 | -1.48 | -0.98 |
| 34 | 118.8 | 0.55 | -1.53 | -0.98 |
| 35 | 122.4 | 0.58 | -1.58 | -1.00 |
| 36 | 126.0 | 0.60 | -1.62 | -1.02 |
| 37 | 129.6 | 0.57 | -1.67 | -1.10 |
| 38 | 133.2 | 0.58 | -1.72 | -1.14 |
| 39 | 136.8 | 0.61 | -1.76 | -1.15 |
| 40 | 140.4 | 0.57 | -1.81 | -1.24 |
| 41 | 144.0 | 0.39 | -1.85 | -1.46 |
| 42 | 147.6 | 0.30 | -1.90 | -1.60 |
| 43 | 151.2 | 0.19 | -1.95 | -1.76 |

Table 44.11: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2232+00, MSU St. 47

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.09 | -0.05 | 0.04 |
| 3 | 7.2 | 0.10 | -0.09 | 0.01 |
| 4 | 10.8 | 0.12 | -0.14 | -0.02 |
| 5 | 14.4 | 0.15 | -0.19 | -0.04 |
| 6 | 18.0 | 0.14 | -0.23 | -0.09 |
| 7 | 21.6 | 0.14 | -0.28 | -0.14 |
| 8 | 25.2 | 0.12 | -0.32 | -0.20 |
| 9 | 28.8 | 0.08 | -0.37 | -0.29 |
| 10 | 32.4 | 0.10 | -0.42 | -0.32 |
| 11 | 36.0 | 0.11 | -0.46 | -0.35 |
| 12 | 39.6 | 0.13 | -0.51 | -0.38 |
| 13 | 43.2 | 0.17 | -0.56 | -0.39 |
| 14 | 46.8 | 0.21 | -0.60 | -0.39 |
| 15 | 50.4 | 0.27 | -0.65 | -0.38 |
| 16 | 54.0 | 0.30 | -0.70 | -0.40 |
| 17 | 57.6 | 0.37 | -0.74 | -0.37 |
| 18 | 61.2 | 0.39 | -0.79 | -0.40 |
| 19 | 64.8 | 0.42 | -0.83 | -0.41 |
| 20 | 68.4 | 0.47 | -0.88 | -0.41 |
| 21 | 72.0 | 0.47 | -0.93 | -0.46 |
| 22 | 75.6 | 0.49 | -0.97 | -0.48 |
| 23 | 79.2 | 0.50 | -1.02 | -0.52 |
| 24 | 82.8 | 0.50 | -1.07 | -0.57 |
| 25 | 86.4 | 0.49 | -1.11 | -0.62 |
| 26 | 90.0 | 0.45 | -1.16 | -0.71 |
| 27 | 93.6 | 0.39 | -1.21 | -0.82 |
| 28 | 97.2 | 0.37 | -1.25 | -0.88 |
| 29 | 100.8 | 0.33 | -1.30 | -0.97 |
| 30 | 104.4 | 0.30 | -1.34 | -1.04 |
| 31 | 108.0 | 0.30 | -1.39 | -1.09 |
| 32 | 111.6 | 0.30 | -1.44 | -1.14 |
| 33 | 115.2 | 0.30 | -1.48 | -1.18 |
| 34 | 118.8 | 0.32 | -1.53 | -1.21 |
| 35 | 122.4 | 0.37 | -1.58 | -1.21 |
| 36 | 126.0 | 0.40 | -1.62 | -1.22 |
| 37 | 129.6 | 0.38 | -1.67 | -1.29 |
| 38 | 133.2 | 0.38 | -1.72 | -1.34 |
| 39 | 136.8 | 0.39 | -1.76 | -1.37 |
| 40 | 140.4 | 0.27 | -1.81 | -1.54 |
| 41 | 144.0 | 0.20 | -1.85 | -1.65 |
| 42 | 147.6 | 0.10 | -1.90 | -1.80 |
| 43 | 151.2 | -0.04 | -1.95 | -1.99 |

2238+00, MSU St. 48

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.08 | -0.03 | 0.05 |
| 3 | 7.2 | 0.12 | -0.05 | 0.07 |
| 4 | 10.8 | 0.16 | -0.08 | 0.08 |
| 5 | 14.4 | 0.12 | -0.11 | 0.01 |
| 6 | 18.0 | 0.10 | -0.14 | -0.04 |
| 7 | 21.6 | 0.12 | -0.16 | -0.04 |
| 8 | 25.2 | 0.09 | -0.19 | -0.10 |
| 9 | 28.8 | 0.09 | -0.22 | -0.13 |
| 10 | 32.4 | 0.11 | -0.25 | -0.14 |
| 11 | 36.0 | 0.14 | -0.27 | -0.13 |
| 12 | 39.6 | 0.19 | -0.30 | -0.11 |
| 13 | 43.2 | 0.21 | -0.33 | -0.12 |
| 14 | 46.8 | 0.28 | -0.35 | -0.07 |
| 15 | 50.4 | 0.34 | -0.38 | -0.04 |
| 16 | 54.0 | 0.37 | -0.41 | -0.04 |
| 17 | 57.6 | 0.41 | -0.44 | -0.03 |
| 18 | 61.2 | 0.48 | -0.46 | 0.02 |
| 19 | 64.8 | 0.47 | -0.49 | -0.02 |
| 20 | 68.4 | 0.49 | -0.52 | -0.03 |
| 21 | 72.0 | 0.50 | -0.55 | -0.05 |
| 22 | 75.6 | 0.49 | -0.57 | -0.08 |
| 23 | 79.2 | 0.48 | -0.60 | -0.12 |
| 24 | 82.8 | 0.49 | -0.63 | -0.14 |
| 25 | 86.4 | 0.46 | -0.65 | -0.19 |
| 26 | 90.0 | 0.42 | -0.68 | -0.26 |
| 27 | 93.6 | 0.41 | -0.71 | -0.30 |
| 28 | 97.2 | 0.37 | -0.74 | -0.37 |
| 29 | 100.8 | 0.35 | -0.76 | -0.41 |
| 30 | 104.4 | 0.35 | -0.79 | -0.44 |
| 31 | 108.0 | 0.33 | -0.82 | -0.49 |
| 32 | 111.6 | 0.38 | -0.85 | -0.47 |
| 33 | 115.2 | 0.40 | -0.87 | -0.47 |
| 34 | 118.8 | 0.40 | -0.90 | -0.50 |
| 35 | 122.4 | 0.41 | -0.93 | -0.52 |
| 36 | 126.0 | 0.45 | -0.95 | -0.50 |
| 37 | 129.6 | 0.44 | -0.98 | -0.54 |
| 38 | 133.2 | 0.43 | -1.01 | -0.58 |
| 39 | 136.8 | 0.40 | -1.04 | -0.64 |
| 40 | 140.4 | 0.43 | -1.06 | -0.63 |
| 41 | 144.0 | 0.30 | -1.09 | -0.79 |
| 42 | 147.6 | 0.18 | -1.12 | -0.94 |
| 43 | 151.2 | 0.07 | -1.15 | -1.08 |

Table 44.12: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2244+00, MSU St. 49

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.09 | -0.05 | 0.04 |
| 3 | 7.2 | 0.10 | -0.11 | -0.01 |
| 4 | 10.8 | 0.11 | -0.16 | -0.05 |
| 5 | 14.4 | 0.11 | -0.22 | -0.11 |
| 6 | 18.0 | 0.09 | -0.27 | -0.18 |
| 7 | 21.6 | 0.10 | -0.33 | -0.23 |
| 8 | 25.2 | 0.10 | -0.38 | -0.28 |
| 9 | 28.8 | 0.10 | -0.44 | -0.34 |
| 10 | 32.4 | 0.13 | -0.49 | -0.36 |
| 11 | 36.0 | 0.18 | -0.55 | -0.37 |
| 12 | 39.6 | 0.21 | -0.60 | -0.39 |
| 13 | 43.2 | 0.29 | -0.65 | -0.36 |
| 14 | 46.8 | 0.31 | -0.71 | -0.40 |
| 15 | 50.4 | 0.37 | -0.76 | -0.39 |
| 16 | 54.0 | 0.40 | -0.82 | -0.42 |
| 17 | 57.6 | 0.42 | -0.87 | -0.45 |
| 18 | 61.2 | 0.47 | -0.93 | -0.46 |
| 19 | 64.8 | 0.48 | -0.98 | -0.50 |
| 20 | 68.4 | 0.50 | -1.04 | -0.54 |
| 21 | 72.0 | 0.52 | -1.09 | -0.57 |
| 22 | 75.6 | 0.50 | -1.15 | -0.65 |
| 23 | 79.2 | 0.50 | -1.20 | -0.70 |
| 24 | 82.8 | 0.49 | -1.25 | -0.76 |
| 25 | 86.4 | 0.41 | -1.31 | -0.90 |
| 26 | 90.0 | 0.40 | -1.36 | -0.96 |
| 27 | 93.6 | 0.39 | -1.42 | -1.03 |
| 28 | 97.2 | 0.37 | -1.47 | -1.10 |
| 29 | 100.8 | 0.37 | -1.53 | -1.16 |
| 30 | 104.4 | 0.39 | -1.58 | -1.19 |
| 31 | 108.0 | 0.40 | -1.64 | -1.24 |
| 32 | 111.6 | 0.42 | -1.69 | -1.27 |
| 33 | 115.2 | 0.42 | -1.75 | -1.33 |
| 34 | 118.8 | 0.47 | -1.80 | -1.33 |
| 35 | 122.4 | 0.55 | -1.85 | -1.30 |
| 36 | 126.0 | 0.59 | -1.91 | -1.32 |
| 37 | 129.6 | 0.52 | -1.96 | -1.44 |
| 38 | 133.2 | 0.54 | -2.02 | -1.48 |
| 39 | 136.8 | 0.41 | -2.07 | -1.66 |
| 40 | 140.4 | 0.27 | -2.13 | -1.86 |
| 41 | 144.0 | 0.18 | -2.18 | -2.00 |
| 42 | 147.6 | 0.07 | -2.24 | -2.17 |
| 43 | 151.2 | -0.07 | -2.29 | -2.36 |

2250+00, MSU St. 50

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.00 | -0.04 | -0.04 |
| 3 | 7.2 | 0.01 | -0.07 | -0.06 |
| 4 | 10.8 | 0.02 | -0.11 | -0.09 |
| 5 | 14.4 | 0.03 | -0.14 | -0.11 |
| 6 | 18.0 | 0.01 | -0.18 | -0.17 |
| 7 | 21.6 | 0.00 | -0.21 | -0.21 |
| 8 | 25.2 | 0.01 | -0.25 | -0.24 |
| 9 | 28.8 | 0.04 | -0.28 | -0.24 |
| 10 | 32.4 | 0.07 | -0.32 | -0.25 |
| 11 | 36.0 | 0.09 | -0.35 | -0.26 |
| 12 | 39.6 | 0.13 | -0.39 | -0.26 |
| 13 | 43.2 | 0.19 | -0.43 | -0.24 |
| 14 | 46.8 | 0.22 | -0.46 | -0.24 |
| 15 | 50.4 | 0.33 | -0.50 | -0.17 |
| 16 | 54.0 | 0.31 | -0.53 | -0.22 |
| 17 | 57.6 | 0.34 | -0.57 | -0.23 |
| 18 | 61.2 | 0.39 | -0.60 | -0.21 |
| 19 | 64.8 | 0.40 | -0.64 | -0.24 |
| 20 | 68.4 | 0.41 | -0.67 | -0.26 |
| 21 | 72.0 | 0.42 | -0.71 | -0.29 |
| 22 | 75.6 | 0.43 | -0.74 | -0.31 |
| 23 | 79.2 | 0.43 | -0.78 | -0.35 |
| 24 | 82.8 | 0.43 | -0.82 | -0.39 |
| 25 | 86.4 | 0.41 | -0.85 | -0.44 |
| 26 | 90.0 | 0.39 | -0.89 | -0.50 |
| 27 | 93.6 | 0.39 | -0.92 | -0.53 |
| 28 | 97.2 | 0.39 | -0.96 | -0.57 |
| 29 | 100.8 | 0.40 | -0.99 | -0.59 |
| 30 | 104.4 | 0.40 | -1.03 | -0.63 |
| 31 | 108.0 | 0.39 | -1.06 | -0.67 |
| 32 | 111.6 | 0.40 | -1.10 | -0.70 |
| 33 | 115.2 | 0.43 | -1.13 | -0.70 |
| 34 | 118.8 | 0.46 | -1.17 | -0.71 |
| 35 | 122.4 | 0.50 | -1.21 | -0.71 |
| 36 | 126.0 | 0.51 | -1.24 | -0.73 |
| 37 | 129.6 | 0.52 | -1.28 | -0.76 |
| 38 | 133.2 | 0.54 | -1.31 | -0.77 |
| 39 | 136.8 | 0.54 | -1.35 | -0.81 |
| 40 | 140.4 | 0.40 | -1.38 | -0.98 |
| 41 | 144.0 | 0.29 | -1.42 | -1.13 |
| 42 | 147.6 | 0.09 | -1.45 | -1.36 |
| 43 | 151.2 | -0.10 | -1.49 | -1.59 |

Table 44.13: Coordinate System of the Fifth Annual Post-Construction Pavement Profile of Eastbound Driving Lane.

2254+00, MSU St. 51

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.03 | -0.05 | -0.02 |
| 3 | 7.2 | 0.04 | -0.10 | -0.06 |
| 4 | 10.8 | 0.09 | -0.16 | -0.07 |
| 5 | 14.4 | 0.05 | -0.21 | -0.16 |
| 6 | 18.0 | 0.07 | -0.26 | -0.19 |
| 7 | 21.6 | 0.09 | -0.31 | -0.22 |
| 8 | 25.2 | 0.09 | -0.36 | -0.27 |
| 9 | 28.8 | 0.12 | -0.41 | -0.29 |
| 10 | 32.4 | 0.18 | -0.47 | -0.29 |
| 11 | 36.0 | 0.20 | -0.52 | -0.32 |
| 12 | 39.6 | 0.27 | -0.57 | -0.30 |
| 13 | 43.2 | 0.30 | -0.62 | -0.32 |
| 14 | 46.8 | 0.30 | -0.67 | -0.37 |
| 15 | 50.4 | 0.34 | -0.73 | -0.39 |
| 16 | 54.0 | 0.38 | -0.78 | -0.40 |
| 17 | 57.6 | 0.41 | -0.83 | -0.42 |
| 18 | 61.2 | 0.45 | -0.88 | -0.43 |
| 19 | 64.8 | 0.44 | -0.93 | -0.49 |
| 20 | 68.4 | 0.44 | -0.98 | -0.54 |
| 21 | 72.0 | 0.44 | -1.04 | -0.60 |
| 22 | 75.6 | 0.41 | -1.09 | -0.68 |
| 23 | 79.2 | 0.39 | -1.14 | -0.75 |
| 24 | 82.8 | 0.40 | -1.19 | -0.79 |
| 25 | 86.4 | 0.34 | -1.24 | -0.90 |
| 26 | 90.0 | 0.30 | -1.30 | -1.00 |
| 27 | 93.6 | 0.29 | -1.35 | -1.06 |
| 28 | 97.2 | 0.27 | -1.40 | -1.13 |
| 29 | 100.8 | 0.29 | -1.45 | -1.16 |
| 30 | 104.4 | 0.29 | -1.50 | -1.21 |
| 31 | 108.0 | 0.29 | -1.55 | -1.26 |
| 32 | 111.6 | 0.33 | -1.61 | -1.28 |
| 33 | 115.2 | 0.31 | -1.66 | -1.35 |
| 34 | 118.8 | 0.36 | -1.71 | -1.35 |
| 35 | 122.4 | 0.38 | -1.76 | -1.38 |
| 36 | 126.0 | 0.39 | -1.81 | -1.42 |
| 37 | 129.6 | 0.34 | -1.87 | -1.53 |
| 38 | 133.2 | 0.33 | -1.92 | -1.59 |
| 39 | 136.8 | 0.35 | -1.97 | -1.62 |
| 40 | 140.4 | 0.24 | -2.02 | -1.78 |
| 41 | 144.0 | 0.11 | -2.07 | -1.96 |
| 42 | 147.6 | 0.00 | -2.12 | -2.12 |
| 43 | 151.2 | -0.11 | -2.18 | -2.29 |

2260+00, MSU St. 52

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2 | 3.6 | 0.06 | -0.07 | -0.01 |
| 3 | 7.2 | 0.10 | -0.14 | -0.04 |
| 4 | 10.8 | 0.12 | -0.20 | -0.08 |
| 5 | 14.4 | 0.13 | -0.27 | -0.14 |
| 6 | 18.0 | 0.14 | -0.34 | -0.20 |
| 7 | 21.6 | 0.11 | -0.41 | -0.30 |
| 8 | 25.2 | 0.11 | -0.48 | -0.37 |
| 9 | 28.8 | 0.16 | -0.55 | -0.39 |
| 10 | 32.4 | 0.15 | -0.61 | -0.46 |
| 11 | 36.0 | 0.20 | -0.68 | -0.48 |
| 12 | 39.6 | 0.26 | -0.75 | -0.49 |
| 13 | 43.2 | 0.29 | -0.82 | -0.53 |
| 14 | 46.8 | 0.37 | -0.89 | -0.52 |
| 15 | 50.4 | 0.46 | -0.95 | -0.49 |
| 16 | 54.0 | 0.48 | -1.02 | -0.54 |
| 17 | 57.6 | 0.54 | -1.09 | -0.55 |
| 18 | 61.2 | 0.61 | -1.16 | -0.55 |
| 19 | 64.8 | 0.61 | -1.23 | -0.62 |
| 20 | 68.4 | 0.64 | -1.30 | -0.66 |
| 21 | 72.0 | 0.62 | -1.36 | -0.74 |
| 22 | 75.6 | 0.65 | -1.43 | -0.78 |
| 23 | 79.2 | 0.65 | -1.50 | -0.85 |
| 24 | 82.8 | 0.68 | -1.57 | -0.89 |
| 25 | 86.4 | 0.65 | -1.64 | -0.99 |
| 26 | 90.0 | 0.64 | -1.70 | -1.06 |
| 27 | 93.6 | 0.60 | -1.77 | -1.17 |
| 28 | 97.2 | 0.57 | -1.84 | -1.27 |
| 29 | 100.8 | 0.55 | -1.91 | -1.36 |
| 30 | 104.4 | 0.58 | -1.98 | -1.40 |
| 31 | 108.0 | 0.65 | -2.05 | -1.40 |
| 32 | 111.6 | 0.67 | -2.11 | -1.44 |
| 33 | 115.2 | 0.73 | -2.18 | -1.45 |
| 34 | 118.8 | 0.81 | -2.25 | -1.44 |
| 35 | 122.4 | 0.85 | -2.32 | -1.47 |
| 36 | 126.0 | 0.87 | -2.39 | -1.52 |
| 37 | 129.6 | 0.89 | -2.45 | -1.56 |
| 38 | 133.2 | 0.89 | -2.52 | -1.63 |
| 39 | 136.8 | 0.90 | -2.59 | -1.69 |
| 40 | 140.4 | 0.77 | -2.66 | -1.89 |
| 41 | 144.0 | 0.65 | -2.73 | -2.08 |
| 42 | 147.6 | 0.54 | -2.80 | -2.26 |
| 43 | 151.2 | 0.45 | -2.86 | -2.41 |

Table 45.1: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2130+00, MSU St. 27

| Point | Pavement Width (X) | Width Feet | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|---|
| 43 | 151.2 | -12.6 | -0.16 | -1.49 | -1.65 |
| 42 | 147.6 | -12.3 | -0.18 | -1.45 | -1.63 |
| 41 | 144.0 | -12.0 | -0.16 | -1.42 | -1.58 |
| 40 | 140.4 | -11.7 | -0.17 | -1.38 | -1.55 |
| 39 | 136.8 | -11.4 | -0.18 | -1.35 | -1.53 |
| 38 | 133.2 | -11.1 | -0.20 | -1.31 | -1.51 |
| 37 | 129.6 | -10.8 | -0.16 | -1.28 | -1.44 |
| 36 | 126.0 | -10.5 | -0.14 | -1.24 | -1.38 |
| 35 | 122.4 | -10.2 | -0.13 | -1.21 | -1.34 |
| 34 | 118.8 | -9.9 | -0.10 | -1.17 | -1.27 |
| 33 | 115.2 | -9.6 | -0.09 | -1.13 | -1.22 |
| 32 | 111.6 | -9.3 | -0.07 | -1.10 | -1.17 |
| 31 | 108.0 | -9.0 | -0.05 | -1.06 | -1.11 |
| 30 | 104.4 | -8.7 | -0.04 | -1.03 | -1.07 |
| 29 | 100.8 | -8.4 | -0.03 | -0.99 | -1.02 |
| 28 | 97.2 | -8.1 | -0.03 | -0.96 | -0.99 |
| 27 | 93.6 | -7.8 | -0.03 | -0.92 | -0.95 |
| 26 | 90.0 | -7.5 | -0.03 | -0.89 | -0.92 |
| 25 | 86.4 | -7.2 | -0.03 | -0.85 | -0.88 |
| 24 | 82.8 | -6.9 | -0.09 | -0.82 | -0.91 |
| 23 | 79.2 | -6.6 | -0.08 | -0.78 | -0.86 |
| 22 | 75.6 | -6.3 | -0.07 | -0.74 | -0.81 |
| 21 | 72.0 | -6.0 | -0.06 | -0.71 | -0.77 |
| 20 | 68.4 | -5.7 | -0.08 | -0.67 | -0.75 |
| 19 | 64.8 | -5.4 | -0.07 | -0.64 | -0.71 |
| 18 | 61.2 | -5.1 | -0.07 | -0.60 | -0.67 |
| 17 | 57.6 | -4.8 | -0.09 | -0.57 | -0.66 |
| 16 | 54.0 | -4.5 | -0.06 | -0.53 | -0.59 |
| 15 | 50.4 | -4.2 | -0.05 | -0.50 | -0.55 |
| 14 | 46.8 | -3.9 | -0.06 | -0.46 | -0.52 |
| 13 | 43.2 | -3.6 | -0.04 | -0.43 | -0.47 |
| 12 | 39.6 | -3.3 | -0.02 | -0.39 | -0.41 |
| 11 | 36.0 | -3.0 | -0.05 | -0.35 | -0.40 |
| 10 | 32.4 | -2.7 | -0.01 | -0.32 | -0.33 |
| 9 | 28.8 | -2.4 | -0.02 | -0.28 | -0.30 |
| 8 | 25.2 | -2.1 | 0.00 | -0.25 | -0.25 |
| 7 | 21.6 | -1.8 | 0.03 | -0.21 | -0.18 |
| 6 | 18.0 | -1.5 | 0.06 | -0.18 | -0.12 |
| 5 | 14.4 | -1.2 | 0.07 | -0.14 | -0.07 |
| 4 | 10.8 | -0.9 | 0.10 | -0.11 | -0.01 |
| 3 | 7.2 | -0.6 | 0.09 | -0.07 | 0.02 |
| 2 | 3.6 | -0.3 | 0.04 | -0.04 | 0.00 |
| 1 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |

2134+00, MSU St. 28

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.24 | -1.37 | -1.61 |
| 42 | 147.6 | -0.23 | -1.34 | -1.57 |
| 41 | 144.0 | -0.23 | -1.31 | -1.54 |
| 40 | 140.4 | -0.22 | -1.28 | -1.50 |
| 39 | 136.8 | -0.20 | -1.24 | -1.44 |
| 38 | 133.2 | -0.20 | -1.21 | -1.41 |
| 37 | 129.6 | -0.19 | -1.18 | -1.37 |
| 36 | 126.0 | -0.14 | -1.15 | -1.29 |
| 35 | 122.4 | -0.12 | -1.11 | -1.23 |
| 34 | 118.8 | -0.10 | -1.08 | -1.18 |
| 33 | 115.2 | -0.08 | -1.05 | -1.13 |
| 32 | 111.6 | -0.09 | -1.01 | -1.10 |
| 31 | 108.0 | -0.07 | -0.98 | -1.05 |
| 30 | 104.4 | -0.06 | -0.95 | -1.01 |
| 29 | 100.8 | -0.05 | -0.92 | -0.97 |
| 28 | 97.2 | -0.02 | -0.88 | -0.90 |
| 27 | 93.6 | 0.00 | -0.85 | -0.85 |
| 26 | 90.0 | -0.04 | -0.82 | -0.86 |
| 25 | 86.4 | -0.01 | -0.79 | -0.80 |
| 24 | 82.8 | -0.01 | -0.75 | -0.76 |
| 23 | 79.2 | -0.03 | -0.72 | -0.75 |
| 22 | 75.6 | 0.00 | -0.69 | -0.69 |
| 21 | 72.0 | -0.01 | -0.65 | -0.66 |
| 20 | 68.4 | -0.01 | -0.62 | -0.63 |
| 19 | 64.8 | 0.00 | -0.59 | -0.59 |
| 18 | 61.2 | 0.00 | -0.56 | -0.56 |
| 17 | 57.6 | 0.00 | -0.52 | -0.52 |
| 16 | 54.0 | 0.05 | -0.49 | -0.44 |
| 15 | 50.4 | 0.06 | -0.46 | -0.40 |
| 14 | 46.8 | 0.07 | -0.43 | -0.36 |
| 13 | 43.2 | 0.07 | -0.39 | -0.32 |
| 12 | 39.6 | 0.07 | -0.36 | -0.29 |
| 11 | 36.0 | 0.07 | -0.33 | -0.26 |
| 10 | 32.4 | 0.08 | -0.29 | -0.21 |
| 9 | 28.8 | 0.08 | -0.26 | -0.18 |
| 8 | 25.2 | 0.13 | -0.23 | -0.10 |
| 7 | 21.6 | 0.18 | -0.20 | -0.02 |
| 6 | 18.0 | 0.21 | -0.16 | 0.05 |
| 5 | 14.4 | 0.21 | -0.13 | 0.08 |
| 4 | 10.8 | 0.19 | -0.10 | 0.09 |
| 3 | 7.2 | 0.12 | -0.07 | 0.05 |
| 2 | 3.6 | 0.07 | -0.03 | 0.04 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.2: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2138+00, MSU St. 29

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.03 | -1.60 | -1.63 |
| 42 | 147.6 | 0.02 | -1.57 | -1.55 |
| 41 | 144.0 | 0.04 | -1.53 | -1.49 |
| 40 | 140.4 | 0.08 | -1.49 | -1.41 |
| 39 | 136.8 | 0.06 | -1.45 | -1.39 |
| 38 | 133.2 | 0.04 | -1.41 | -1.37 |
| 37 | 129.6 | 0.05 | -1.37 | -1.32 |
| 36 | 126.0 | 0.05 | -1.34 | -1.29 |
| 35 | 122.4 | 0.03 | -1.30 | -1.27 |
| 34 | 118.8 | 0.06 | -1.26 | -1.20 |
| 33 | 115.2 | 0.05 | -1.22 | -1.17 |
| 32 | 111.6 | 0.06 | -1.18 | -1.12 |
| 31 | 108.0 | 0.08 | -1.15 | -1.07 |
| 30 | 104.4 | 0.08 | -1.11 | -1.03 |
| 29 | 100.8 | 0.07 | -1.07 | -1.00 |
| 28 | 97.2 | 0.09 | -1.03 | -0.94 |
| 27 | 93.6 | 0.07 | -0.99 | -0.92 |
| 26 | 90.0 | 0.07 | -0.95 | -0.88 |
| 25 | 86.4 | 0.07 | -0.92 | -0.85 |
| 24 | 82.8 | 0.07 | -0.88 | -0.81 |
| 23 | 79.2 | 0.05 | -0.84 | -0.79 |
| 22 | 75.6 | 0.05 | -0.80 | -0.75 |
| 21 | 72.0 | 0.04 | -0.76 | -0.72 |
| 20 | 68.4 | 0.03 | -0.73 | -0.70 |
| 19 | 64.8 | 0.01 | -0.69 | -0.68 |
| 18 | 61.2 | 0.02 | -0.65 | -0.63 |
| 17 | 57.6 | 0.01 | -0.61 | -0.60 |
| 16 | 54.0 | 0.00 | -0.57 | -0.57 |
| 15 | 50.4 | 0.00 | -0.53 | -0.53 |
| 14 | 46.8 | -0.01 | -0.50 | -0.51 |
| 13 | 43.2 | 0.00 | -0.46 | -0.46 |
| 12 | 39.6 | 0.00 | -0.42 | -0.42 |
| 11 | 36.0 | 0.00 | -0.38 | -0.38 |
| 10 | 32.4 | -0.02 | -0.34 | -0.36 |
| 9 | 28.8 | 0.00 | -0.31 | -0.31 |
| 8 | 25.2 | -0.01 | -0.27 | -0.28 |
| 7 | 21.6 | -0.01 | -0.23 | -0.24 |
| 6 | 18.0 | 0.00 | -0.19 | -0.19 |
| 5 | 14.4 | 0.00 | -0.15 | -0.15 |
| 4 | 10.8 | 0.00 | -0.11 | -0.11 |
| 3 | 7.2 | 0.02 | -0.08 | -0.06 |
| 2 | 3.6 | 0.04 | -0.04 | 0.00 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2144+00, MSU St. 30

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.11 | -1.95 | -2.06 |
| 42 | 147.6 | -0.05 | -1.90 | -1.95 |
| 41 | 144.0 | -0.04 | -1.85 | -1.89 |
| 40 | 140.4 | -0.04 | -1.81 | -1.85 |
| 39 | 136.8 | -0.07 | -1.76 | -1.83 |
| 38 | 133.2 | -0.08 | -1.72 | -1.80 |
| 37 | 129.6 | -0.07 | -1.67 | -1.74 |
| 36 | 126.0 | -0.07 | -1.62 | -1.69 |
| 35 | 122.4 | -0.07 | -1.58 | -1.65 |
| 34 | 118.8 | -0.04 | -1.53 | -1.57 |
| 33 | 115.2 | -0.04 | -1.48 | -1.52 |
| 32 | 111.6 | -0.05 | -1.44 | -1.49 |
| 31 | 108.0 | -0.01 | -1.39 | -1.40 |
| 30 | 104.4 | 0.00 | -1.34 | -1.34 |
| 29 | 100.8 | 0.00 | -1.30 | -1.30 |
| 28 | 97.2 | 0.01 | -1.25 | -1.24 |
| 27 | 93.6 | 0.00 | -1.21 | -1.21 |
| 26 | 90.0 | -0.01 | -1.16 | -1.17 |
| 25 | 86.4 | -0.02 | -1.11 | -1.13 |
| 24 | 82.8 | -0.03 | -1.07 | -1.10 |
| 23 | 79.2 | -0.06 | -1.02 | -1.08 |
| 22 | 75.6 | -0.06 | -0.97 | -1.03 |
| 21 | 72.0 | -0.07 | -0.93 | -1.00 |
| 20 | 68.4 | -0.07 | -0.88 | -0.95 |
| 19 | 64.8 | -0.07 | -0.83 | -0.90 |
| 18 | 61.2 | -0.09 | -0.79 | -0.88 |
| 17 | 57.6 | -0.10 | -0.74 | -0.84 |
| 16 | 54.0 | -0.10 | -0.70 | -0.80 |
| 15 | 50.4 | -0.10 | -0.65 | -0.75 |
| 14 | 46.8 | -0.10 | -0.60 | -0.70 |
| 13 | 43.2 | -0.10 | -0.56 | -0.66 |
| 12 | 39.6 | -0.08 | -0.51 | -0.59 |
| 11 | 36.0 | -0.07 | -0.46 | -0.53 |
| 10 | 32.4 | -0.07 | -0.42 | -0.49 |
| 9 | 28.8 | -0.04 | -0.37 | -0.41 |
| 8 | 25.2 | -0.04 | -0.32 | -0.36 |
| 7 | 21.6 | -0.04 | -0.28 | -0.32 |
| 6 | 18.0 | -0.01 | -0.23 | -0.24 |
| 5 | 14.4 | 0.00 | -0.19 | -0.19 |
| 4 | 10.8 | -0.01 | -0.14 | -0.15 |
| 3 | 7.2 | 0.01 | -0.09 | -0.08 |
| 2 | 3.6 | 0.04 | -0.05 | -0.01 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.3: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2150+00, MSU St. 31

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.23 | -1.03 | -1.26 |
| 42 | 147.6 | -0.17 | -1.01 | -1.18 |
| 41 | 144.0 | -0.19 | -0.98 | -1.17 |
| 40 | 140.4 | -0.20 | -0.96 | -1.16 |
| 39 | 136.8 | -0.19 | -0.93 | -1.12 |
| 38 | 133.2 | -0.19 | -0.91 | -1.10 |
| 37 | 129.6 | -0.17 | -0.88 | -1.05 |
| 36 | 126.0 | -0.13 | -0.86 | -0.99 |
| 35 | 122.4 | -0.13 | -0.83 | -0.96 |
| 34 | 118.8 | -0.13 | -0.81 | -0.94 |
| 33 | 115.2 | -0.11 | -0.79 | -0.90 |
| 32 | 111.6 | -0.10 | -0.76 | -0.86 |
| 31 | 108.0 | -0.07 | -0.74 | -0.81 |
| 30 | 104.4 | -0.05 | -0.71 | -0.76 |
| 29 | 100.8 | -0.03 | -0.69 | -0.72 |
| 28 | 97.2 | -0.01 | -0.66 | -0.67 |
| 27 | 93.6 | 0.00 | -0.64 | -0.64 |
| 26 | 90.0 | 0.00 | -0.61 | -0.61 |
| 25 | 86.4 | 0.00 | -0.59 | -0.59 |
| 24 | 82.8 | 0.00 | -0.56 | -0.56 |
| 23 | 79.2 | 0.00 | -0.54 | -0.54 |
| 22 | 75.6 | 0.00 | -0.52 | -0.52 |
| 21 | 72.0 | -0.01 | -0.49 | -0.50 |
| 20 | 68.4 | -0.03 | -0.47 | -0.50 |
| 19 | 64.8 | -0.04 | -0.44 | -0.48 |
| 18 | 61.2 | -0.03 | -0.42 | -0.45 |
| 17 | 57.6 | -0.04 | -0.39 | -0.43 |
| 16 | 54.0 | -0.05 | -0.37 | -0.42 |
| 15 | 50.4 | -0.03 | -0.34 | -0.37 |
| 14 | 46.8 | -0.03 | -0.32 | -0.35 |
| 13 | 43.2 | -0.03 | -0.29 | -0.32 |
| 12 | 39.6 | -0.02 | -0.27 | -0.29 |
| 11 | 36.0 | -0.04 | -0.25 | -0.29 |
| 10 | 32.4 | -0.05 | -0.22 | -0.27 |
| 9 | 28.8 | -0.02 | -0.20 | -0.22 |
| 8 | 25.2 | -0.02 | -0.17 | -0.19 |
| 7 | 21.6 | -0.03 | -0.15 | -0.18 |
| 6 | 18.0 | -0.01 | -0.12 | -0.13 |
| 5 | 14.4 | 0.00 | -0.10 | -0.10 |
| 4 | 10.8 | 0.00 | -0.07 | -0.07 |
| 3 | 7.2 | 0.01 | -0.05 | -0.04 |
| 2 | 3.6 | 0.01 | -0.02 | -0.01 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2154+00, MSU St. 32

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.10 | -1.49 | -1.59 |
| 42 | 147.6 | -0.08 | -1.45 | -1.53 |
| 41 | 144.0 | -0.11 | -1.42 | -1.53 |
| 40 | 140.4 | -0.11 | -1.38 | -1.49 |
| 39 | 136.8 | -0.11 | -1.35 | -1.46 |
| 38 | 133.2 | -0.13 | -1.31 | -1.44 |
| 37 | 129.6 | -0.11 | -1.28 | -1.39 |
| 36 | 126.0 | -0.09 | -1.24 | -1.33 |
| 35 | 122.4 | -0.09 | -1.21 | -1.30 |
| 34 | 118.8 | -0.08 | -1.17 | -1.25 |
| 33 | 115.2 | -0.06 | -1.13 | -1.19 |
| 32 | 111.6 | -0.04 | -1.10 | -1.14 |
| 31 | 108.0 | -0.04 | -1.06 | -1.10 |
| 30 | 104.4 | -0.03 | -1.03 | -1.06 |
| 29 | 100.8 | -0.02 | -0.99 | -1.01 |
| 28 | 97.2 | -0.02 | -0.96 | -0.98 |
| 27 | 93.6 | 0.00 | -0.92 | -0.92 |
| 26 | 90.0 | 0.00 | -0.89 | -0.89 |
| 25 | 86.4 | -0.01 | -0.85 | -0.86 |
| 24 | 82.8 | 0.00 | -0.82 | -0.82 |
| 23 | 79.2 | 0.00 | -0.78 | -0.78 |
| 22 | 75.6 | -0.02 | -0.74 | -0.76 |
| 21 | 72.0 | 0.00 | -0.71 | -0.71 |
| 20 | 68.4 | -0.02 | -0.67 | -0.69 |
| 19 | 64.8 | -0.03 | -0.64 | -0.67 |
| 18 | 61.2 | -0.01 | -0.60 | -0.61 |
| 17 | 57.6 | -0.04 | -0.57 | -0.61 |
| 16 | 54.0 | -0.04 | -0.53 | -0.57 |
| 15 | 50.4 | -0.03 | -0.50 | -0.53 |
| 14 | 46.8 | -0.02 | -0.46 | -0.48 |
| 13 | 43.2 | -0.04 | -0.43 | -0.47 |
| 12 | 39.6 | -0.01 | -0.39 | -0.40 |
| 11 | 36.0 | -0.03 | -0.35 | -0.38 |
| 10 | 32.4 | -0.03 | -0.32 | -0.35 |
| 9 | 28.8 | -0.02 | -0.28 | -0.30 |
| 8 | 25.2 | -0.01 | -0.25 | -0.26 |
| 7 | 21.6 | 0.00 | -0.21 | -0.21 |
| 6 | 18.0 | 0.01 | -0.18 | -0.17 |
| 5 | 14.4 | 0.03 | -0.14 | -0.11 |
| 4 | 10.8 | 0.04 | -0.11 | -0.07 |
| 3 | 7.2 | 0.03 | -0.07 | -0.04 |
| 2 | 3.6 | 0.02 | -0.04 | -0.02 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.4: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2160+00, MSU St. 33

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.02 | -1.60 | -1.62 |
| 42 | 147.6 | 0.01 | -1.57 | -1.56 |
| 41 | 144.0 | -0.02 | -1.53 | -1.55 |
| 40 | 140.4 | -0.04 | -1.49 | -1.53 |
| 39 | 136.8 | -0.01 | -1.45 | -1.46 |
| 38 | 133.2 | -0.01 | -1.41 | -1.42 |
| 37 | 129.6 | -0.04 | -1.37 | -1.41 |
| 36 | 126.0 | -0.03 | -1.34 | -1.37 |
| 35 | 122.4 | -0.01 | -1.30 | -1.31 |
| 34 | 118.8 | 0.00 | -1.26 | -1.26 |
| 33 | 115.2 | 0.02 | -1.22 | -1.20 |
| 32 | 111.6 | 0.03 | -1.18 | -1.15 |
| 31 | 108.0 | 0.04 | -1.15 | -1.11 |
| 30 | 104.4 | 0.06 | -1.11 | -1.05 |
| 29 | 100.8 | 0.07 | -1.07 | -1.00 |
| 28 | 97.2 | 0.09 | -1.03 | -0.94 |
| 27 | 93.6 | 0.10 | -0.99 | -0.89 |
| 26 | 90.0 | 0.10 | -0.95 | -0.85 |
| 25 | 86.4 | 0.11 | -0.92 | -0.81 |
| 24 | 82.8 | 0.10 | -0.88 | -0.78 |
| 23 | 79.2 | 0.08 | -0.84 | -0.76 |
| 22 | 75.6 | 0.07 | -0.80 | -0.73 |
| 21 | 72.0 | 0.05 | -0.76 | -0.71 |
| 20 | 68.4 | 0.05 | -0.73 | -0.68 |
| 19 | 64.8 | 0.04 | -0.69 | -0.65 |
| 18 | 61.2 | 0.07 | -0.65 | -0.58 |
| 17 | 57.6 | 0.06 | -0.61 | -0.55 |
| 16 | 54.0 | 0.04 | -0.57 | -0.53 |
| 15 | 50.4 | 0.08 | -0.53 | -0.45 |
| 14 | 46.8 | 0.07 | -0.50 | -0.43 |
| 13 | 43.2 | 0.06 | -0.46 | -0.40 |
| 12 | 39.6 | 0.08 | -0.42 | -0.34 |
| 11 | 36.0 | 0.07 | -0.38 | -0.31 |
| 10 | 32.4 | 0.06 | -0.34 | -0.28 |
| 9 | 28.8 | 0.07 | -0.31 | -0.24 |
| 8 | 25.2 | 0.07 | -0.27 | -0.20 |
| 7 | 21.6 | 0.07 | -0.23 | -0.16 |
| 6 | 18.0 | 0.08 | -0.19 | -0.11 |
| 5 | 14.4 | 0.10 | -0.15 | -0.05 |
| 4 | 10.8 | 0.09 | -0.11 | -0.02 |
| 3 | 7.2 | 0.09 | -0.08 | 0.01 |
| 2 | 3.6 | 0.06 | -0.04 | 0.02 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2164+00, MSU St. 34

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.11 | -1.37 | -1.48 |
| 42 | 147.6 | -0.08 | -1.34 | -1.42 |
| 41 | 144.0 | -0.10 | -1.31 | -1.41 |
| 40 | 140.4 | -0.10 | -1.28 | -1.38 |
| 39 | 136.8 | -0.10 | -1.24 | -1.34 |
| 38 | 133.2 | -0.08 | -1.21 | -1.29 |
| 37 | 129.6 | -0.08 | -1.18 | -1.26 |
| 36 | 126.0 | -0.08 | -1.15 | -1.23 |
| 35 | 122.4 | -0.06 | -1.11 | -1.17 |
| 34 | 118.8 | -0.04 | -1.08 | -1.12 |
| 33 | 115.2 | -0.02 | -1.05 | -1.07 |
| 32 | 111.6 | -0.01 | -1.01 | -1.02 |
| 31 | 108.0 | 0.04 | -0.98 | -0.94 |
| 30 | 104.4 | 0.07 | -0.95 | -0.88 |
| 29 | 100.8 | 0.09 | -0.92 | -0.83 |
| 28 | 97.2 | 0.10 | -0.88 | -0.78 |
| 27 | 93.6 | 0.10 | -0.85 | -0.75 |
| 26 | 90.0 | 0.10 | -0.82 | -0.72 |
| 25 | 86.4 | 0.09 | -0.79 | -0.70 |
| 24 | 82.8 | 0.10 | -0.75 | -0.65 |
| 23 | 79.2 | 0.09 | -0.72 | -0.63 |
| 22 | 75.6 | 0.06 | -0.69 | -0.63 |
| 21 | 72.0 | 0.07 | -0.65 | -0.58 |
| 20 | 68.4 | 0.04 | -0.62 | -0.58 |
| 19 | 64.8 | 0.01 | -0.59 | -0.58 |
| 18 | 61.2 | 0.01 | -0.56 | -0.55 |
| 17 | 57.6 | -0.01 | -0.52 | -0.53 |
| 16 | 54.0 | -0.02 | -0.49 | -0.51 |
| 15 | 50.4 | 0.01 | -0.46 | -0.45 |
| 14 | 46.8 | 0.02 | -0.43 | -0.41 |
| 13 | 43.2 | 0.03 | -0.39 | -0.36 |
| 12 | 39.6 | 0.06 | -0.36 | -0.30 |
| 11 | 36.0 | 0.06 | -0.33 | -0.27 |
| 10 | 32.4 | 0.04 | -0.29 | -0.25 |
| 9 | 28.8 | 0.06 | -0.26 | -0.20 |
| 8 | 25.2 | 0.05 | -0.23 | -0.18 |
| 7 | 21.6 | 0.05 | -0.20 | -0.15 |
| 6 | 18.0 | 0.05 | -0.16 | -0.11 |
| 5 | 14.4 | 0.05 | -0.13 | -0.08 |
| 4 | 10.8 | 0.04 | -0.10 | -0.06 |
| 3 | 7.2 | 0.04 | -0.07 | -0.03 |
| 2 | 3.6 | 0.06 | -0.03 | 0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.5: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2170+00, MSU St. 35

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.21 | -2.06 | -1.85 |
| 42 | 147.6 | 0.25 | -2.01 | -1.76 |
| 41 | 144.0 | 0.21 | -1.96 | -1.75 |
| 40 | 140.4 | 0.20 | -1.91 | -1.71 |
| 39 | 136.8 | 0.19 | -1.87 | -1.68 |
| 38 | 133.2 | 0.19 | -1.82 | -1.63 |
| 37 | 129.6 | 0.18 | -1.77 | -1.59 |
| 36 | 126.0 | 0.18 | -1.72 | -1.54 |
| 35 | 122.4 | 0.20 | -1.67 | -1.47 |
| 34 | 118.8 | 0.19 | -1.62 | -1.43 |
| 33 | 115.2 | 0.18 | -1.57 | -1.39 |
| 32 | 111.6 | 0.19 | -1.52 | -1.33 |
| 31 | 108.0 | 0.19 | -1.47 | -1.28 |
| 30 | 104.4 | 0.17 | -1.42 | -1.25 |
| 29 | 100.8 | 0.20 | -1.37 | -1.17 |
| 28 | 97.2 | 0.22 | -1.33 | -1.11 |
| 27 | 93.6 | 0.20 | -1.28 | -1.08 |
| 26 | 90.0 | 0.20 | -1.23 | -1.03 |
| 25 | 86.4 | 0.21 | -1.18 | -0.97 |
| 24 | 82.8 | 0.20 | -1.13 | -0.93 |
| 23 | 79.2 | 0.20 | -1.08 | -0.88 |
| 22 | 75.6 | 0.20 | -1.03 | -0.83 |
| 21 | 72.0 | 0.18 | -0.98 | -0.80 |
| 20 | 68.4 | 0.17 | -0.93 | -0.76 |
| 19 | 64.8 | 0.13 | -0.88 | -0.75 |
| 18 | 61.2 | 0.12 | -0.83 | -0.71 |
| 17 | 57.6 | 0.12 | -0.79 | -0.67 |
| 16 | 54.0 | 0.10 | -0.74 | -0.64 |
| 15 | 50.4 | 0.09 | -0.69 | -0.60 |
| 14 | 46.8 | 0.10 | -0.64 | -0.54 |
| 13 | 43.2 | 0.08 | -0.59 | -0.51 |
| 12 | 39.6 | 0.08 | -0.54 | -0.46 |
| 11 | 36.0 | 0.09 | -0.49 | -0.40 |
| 10 | 32.4 | 0.07 | -0.44 | -0.37 |
| 9 | 28.8 | 0.07 | -0.39 | -0.32 |
| 8 | 25.2 | 0.08 | -0.34 | -0.26 |
| 7 | 21.6 | 0.09 | -0.29 | -0.20 |
| 6 | 18.0 | 0.05 | -0.25 | -0.20 |
| 5 | 14.4 | 0.06 | -0.20 | -0.14 |
| 4 | 10.8 | 0.04 | -0.15 | -0.11 |
| 3 | 7.2 | 0.05 | -0.10 | -0.05 |
| 2 | 3.6 | 0.06 | -0.05 | 0.01 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2176+00, MSU St. 36

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.16 | -1.60 | -1.76 |
| 42 | 147.6 | -0.14 | -1.57 | -1.71 |
| 41 | 144.0 | -0.08 | -1.53 | -1.61 |
| 40 | 140.4 | -0.12 | -1.49 | -1.61 |
| 39 | 136.8 | -0.11 | -1.45 | -1.56 |
| 38 | 133.2 | -0.09 | -1.41 | -1.50 |
| 37 | 129.6 | -0.09 | -1.37 | -1.46 |
| 36 | 126.0 | -0.07 | -1.34 | -1.41 |
| 35 | 122.4 | -0.04 | -1.30 | -1.34 |
| 34 | 118.8 | -0.04 | -1.26 | -1.30 |
| 33 | 115.2 | -0.06 | -1.22 | -1.28 |
| 32 | 111.6 | -0.05 | -1.18 | -1.23 |
| 31 | 108.0 | 0.00 | -1.15 | -1.15 |
| 30 | 104.4 | 0.00 | -1.11 | -1.11 |
| 29 | 100.8 | 0.02 | -1.07 | -1.05 |
| 28 | 97.2 | 0.03 | -1.03 | -1.00 |
| 27 | 93.6 | 0.03 | -0.99 | -0.96 |
| 26 | 90.0 | 0.03 | -0.95 | -0.92 |
| 25 | 86.4 | 0.06 | -0.92 | -0.86 |
| 24 | 82.8 | 0.06 | -0.88 | -0.82 |
| 23 | 79.2 | 0.04 | -0.84 | -0.80 |
| 22 | 75.6 | 0.05 | -0.80 | -0.75 |
| 21 | 72.0 | 0.04 | -0.76 | -0.72 |
| 20 | 68.4 | 0.06 | -0.73 | -0.67 |
| 19 | 64.8 | 0.09 | -0.69 | -0.60 |
| 18 | 61.2 | 0.09 | -0.65 | -0.56 |
| 17 | 57.6 | 0.07 | -0.61 | -0.54 |
| 16 | 54.0 | 0.09 | -0.57 | -0.48 |
| 15 | 50.4 | 0.08 | -0.53 | -0.45 |
| 14 | 46.8 | 0.08 | -0.50 | -0.42 |
| 13 | 43.2 | 0.08 | -0.46 | -0.38 |
| 12 | 39.6 | 0.07 | -0.42 | -0.35 |
| 11 | 36.0 | 0.08 | -0.38 | -0.30 |
| 10 | 32.4 | 0.11 | -0.34 | -0.23 |
| 9 | 28.8 | 0.13 | -0.31 | -0.18 |
| 8 | 25.2 | 0.13 | -0.27 | -0.14 |
| 7 | 21.6 | 0.17 | -0.23 | -0.06 |
| 6 | 18.0 | 0.18 | -0.19 | -0.01 |
| 5 | 14.4 | 0.19 | -0.15 | 0.04 |
| 4 | 10.8 | 0.20 | -0.11 | 0.09 |
| 3 | 7.2 | 0.17 | -0.08 | 0.09 |
| 2 | 3.6 | 0.14 | -0.04 | 0.10 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.6: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2180+00, MSU St. 37

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 44 | 154.8 | 0.00 | -1.76 | -1.76 |
| 43 | 151.2 | -0.01 | -1.72 | -1.73 |
| 42 | 147.6 | -0.03 | -1.68 | -1.71 |
| 41 | 144.0 | -0.07 | -1.64 | -1.71 |
| 40 | 140.4 | -0.07 | -1.60 | -1.67 |
| 39 | 136.8 | -0.06 | -1.55 | -1.61 |
| 38 | 133.2 | -0.05 | -1.51 | -1.56 |
| 37 | 129.6 | -0.04 | -1.47 | -1.51 |
| 36 | 126.0 | -0.01 | -1.43 | -1.44 |
| 35 | 122.4 | -0.01 | -1.39 | -1.40 |
| 34 | 118.8 | 0.00 | -1.35 | -1.35 |
| 33 | 115.2 | 0.01 | -1.31 | -1.30 |
| 32 | 111.6 | 0.02 | -1.27 | -1.25 |
| 31 | 108.0 | 0.03 | -1.23 | -1.20 |
| 30 | 104.4 | 0.04 | -1.19 | -1.15 |
| 29 | 100.8 | 0.04 | -1.15 | -1.11 |
| 28 | 97.2 | 0.04 | -1.10 | -1.06 |
| 27 | 93.6 | 0.05 | -1.06 | -1.01 |
| 26 | 90.0 | 0.06 | -1.02 | -0.96 |
| 25 | 86.4 | 0.05 | -0.98 | -0.93 |
| 24 | 82.8 | 0.03 | -0.94 | -0.91 |
| 23 | 79.2 | 0.03 | -0.90 | -0.87 |
| 22 | 75.6 | 0.05 | -0.86 | -0.81 |
| 21 | 72.0 | 0.03 | -0.82 | -0.79 |
| 20 | 68.4 | 0.01 | -0.78 | -0.77 |
| 19 | 64.8 | 0.02 | -0.74 | -0.72 |
| 18 | 61.2 | 0.00 | -0.70 | -0.70 |
| 17 | 57.6 | 0.00 | -0.65 | -0.65 |
| 16 | 54.0 | 0.04 | -0.61 | -0.57 |
| 15 | 50.4 | 0.05 | -0.57 | -0.52 |
| 14 | 46.8 | 0.04 | -0.53 | -0.49 |
| 13 | 43.2 | 0.05 | -0.49 | -0.44 |
| 12 | 39.6 | 0.07 | -0.45 | -0.38 |
| 11 | 36.0 | 0.07 | -0.41 | -0.34 |
| 10 | 32.4 | 0.05 | -0.37 | -0.32 |
| 9 | 28.8 | 0.05 | -0.33 | -0.28 |
| 8 | 25.2 | 0.06 | -0.29 | -0.23 |
| 7 | 21.6 | 0.07 | -0.25 | -0.18 |
| 6 | 18.0 | 0.06 | -0.20 | -0.14 |
| 5 | 14.4 | 0.06 | -0.16 | -0.10 |
| 4 | 10.8 | 0.04 | -0.12 | -0.08 |
| 3 | 7.2 | 0.01 | -0.08 | -0.07 |
| 2 | 3.6 | 0.01 | -0.04 | -0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2184+00, MSU St. 38

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.10 | -1.95 | -1.85 |
| 42 | 147.6 | 0.08 | -1.90 | -1.82 |
| 41 | 144.0 | 0.07 | -1.85 | -1.78 |
| 40 | 140.4 | 0.05 | -1.81 | -1.76 |
| 39 | 136.8 | 0.03 | -1.76 | -1.73 |
| 38 | 133.2 | 0.02 | -1.72 | -1.70 |
| 37 | 129.6 | 0.05 | -1.67 | -1.62 |
| 36 | 126.0 | 0.04 | -1.62 | -1.58 |
| 35 | 122.4 | 0.04 | -1.58 | -1.54 |
| 34 | 118.8 | 0.05 | -1.53 | -1.48 |
| 33 | 115.2 | 0.07 | -1.48 | -1.41 |
| 32 | 111.6 | 0.08 | -1.44 | -1.36 |
| 31 | 108.0 | 0.09 | -1.39 | -1.30 |
| 30 | 104.4 | 0.11 | -1.34 | -1.23 |
| 29 | 100.8 | 0.10 | -1.30 | -1.20 |
| 28 | 97.2 | 0.09 | -1.25 | -1.16 |
| 27 | 93.6 | 0.10 | -1.21 | -1.11 |
| 26 | 90.0 | 0.09 | -1.16 | -1.07 |
| 25 | 86.4 | 0.09 | -1.11 | -1.02 |
| 24 | 82.8 | 0.09 | -1.07 | -0.98 |
| 23 | 79.2 | 0.07 | -1.02 | -0.95 |
| 22 | 75.6 | 0.07 | -0.97 | -0.90 |
| 21 | 72.0 | 0.09 | -0.93 | -0.84 |
| 20 | 68.4 | 0.08 | -0.88 | -0.80 |
| 19 | 64.8 | 0.04 | -0.83 | -0.79 |
| 18 | 61.2 | 0.06 | -0.79 | -0.73 |
| 17 | 57.6 | 0.05 | -0.74 | -0.69 |
| 16 | 54.0 | 0.04 | -0.70 | -0.66 |
| 15 | 50.4 | 0.05 | -0.65 | -0.60 |
| 14 | 46.8 | 0.05 | -0.60 | -0.55 |
| 13 | 43.2 | 0.05 | -0.56 | -0.51 |
| 12 | 39.6 | 0.07 | -0.51 | -0.44 |
| 11 | 36.0 | 0.08 | -0.46 | -0.38 |
| 10 | 32.4 | 0.07 | -0.42 | -0.35 |
| 9 | 28.8 | 0.09 | -0.37 | -0.28 |
| 8 | 25.2 | 0.09 | -0.32 | -0.23 |
| 7 | 21.6 | 0.10 | -0.28 | -0.18 |
| 6 | 18.0 | 0.11 | -0.23 | -0.12 |
| 5 | 14.4 | 0.11 | -0.19 | -0.08 |
| 4 | 10.8 | 0.09 | -0.14 | -0.05 |
| 3 | 7.2 | 0.09 | -0.09 | -0.00 |
| 2 | 3.6 | 0.06 | -0.05 | 0.01 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.7: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2188+00, MSU St. 39

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 44 | 154.8 | -0.30 | -1.41 | -1.71 |
| 43 | 151.2 | -0.10 | -1.37 | -1.47 |
| 42 | 147.6 | -0.17 | -1.34 | -1.51 |
| 41 | 144.0 | 0.07 | -1.31 | -1.24 |
| 40 | 140.4 | 0.10 | -1.28 | -1.18 |
| 39 | 136.8 | 0.14 | -1.24 | -1.10 |
| 38 | 133.2 | 0.10 | -1.21 | -1.11 |
| 37 | 129.6 | 0.10 | -1.18 | -1.08 |
| 36 | 126.0 | 0.07 | -1.15 | -1.08 |
| 35 | 122.4 | 0.04 | -1.11 | -1.07 |
| 34 | 118.8 | 0.06 | -1.08 | -1.02 |
| 33 | 115.2 | 0.06 | -1.05 | -0.99 |
| 32 | 111.6 | 0.07 | -1.01 | -0.94 |
| 31 | 108.0 | 0.06 | -0.98 | -0.92 |
| 30 | 104.4 | 0.09 | -0.95 | -0.86 |
| 29 | 100.8 | 0.10 | -0.92 | -0.82 |
| 28 | 97.2 | 0.10 | -0.88 | -0.78 |
| 27 | 93.6 | 0.13 | -0.85 | -0.72 |
| 26 | 90.0 | 0.14 | -0.82 | -0.68 |
| 25 | 86.4 | 0.12 | -0.79 | -0.67 |
| 24 | 82.8 | 0.12 | -0.75 | -0.63 |
| 23 | 79.2 | 0.10 | -0.72 | -0.62 |
| 22 | 75.6 | 0.08 | -0.69 | -0.61 |
| 21 | 72.0 | 0.09 | -0.65 | -0.56 |
| 20 | 68.4 | 0.03 | -0.62 | -0.59 |
| 19 | 64.8 | 0.03 | -0.59 | -0.56 |
| 18 | 61.2 | 0.03 | -0.56 | -0.53 |
| 17 | 57.6 | 0.01 | -0.52 | -0.51 |
| 16 | 54.0 | 0.02 | -0.49 | -0.47 |
| 15 | 50.4 | -0.01 | -0.46 | -0.47 |
| 14 | 46.8 | -0.04 | -0.43 | -0.47 |
| 13 | 43.2 | -0.04 | -0.39 | -0.43 |
| 12 | 39.6 | -0.05 | -0.36 | -0.41 |
| 11 | 36.0 | -0.05 | -0.33 | -0.38 |
| 10 | 32.4 | -0.02 | -0.29 | -0.31 |
| 9 | 28.8 | -0.01 | -0.26 | -0.27 |
| 8 | 25.2 | -0.02 | -0.23 | -0.25 |
| 7 | 21.6 | -0.03 | -0.20 | -0.23 |
| 6 | 18.0 | -0.01 | -0.16 | -0.17 |
| 5 | 14.4 | -0.04 | -0.13 | -0.17 |
| 4 | 10.8 | -0.04 | -0.10 | -0.14 |
| 3 | 7.2 | -0.03 | -0.07 | -0.10 |
| 2 | 3.6 | -0.01 | -0.03 | -0.04 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2192+00, MSU St. 40

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.12 | -2.52 | -2.64 |
| 42 | 147.6 | -0.12 | -2.46 | -2.58 |
| 41 | 144.0 | -0.11 | -2.40 | -2.51 |
| 40 | 140.4 | -0.11 | -2.34 | -2.45 |
| 39 | 136.8 | -0.11 | -2.28 | -2.39 |
| 38 | 133.2 | -0.10 | -2.22 | -2.32 |
| 37 | 129.6 | -0.09 | -2.16 | -2.25 |
| 36 | 126.0 | -0.07 | -2.10 | -2.17 |
| 35 | 122.4 | -0.04 | -2.04 | -2.08 |
| 34 | 118.8 | -0.04 | -1.98 | -2.02 |
| 33 | 115.2 | 0.02 | -1.92 | -1.90 |
| 32 | 111.6 | 0.04 | -1.86 | -1.82 |
| 31 | 108.0 | 0.06 | -1.80 | -1.74 |
| 30 | 104.4 | 0.09 | -1.74 | -1.65 |
| 29 | 100.8 | 0.07 | -1.68 | -1.61 |
| 28 | 97.2 | 0.03 | -1.62 | -1.59 |
| 27 | 93.6 | 0.04 | -1.56 | -1.52 |
| 26 | 90.0 | 0.00 | -1.50 | -1.50 |
| 25 | 86.4 | -0.03 | -1.44 | -1.47 |
| 24 | 82.8 | 0.00 | -1.38 | -1.38 |
| 23 | 79.2 | -0.04 | -1.32 | -1.36 |
| 22 | 75.6 | -0.05 | -1.26 | -1.31 |
| 21 | 72.0 | -0.03 | -1.20 | -1.23 |
| 20 | 68.4 | -0.04 | -1.14 | -1.18 |
| 19 | 64.8 | -0.06 | -1.08 | -1.14 |
| 18 | 61.2 | -0.04 | -1.02 | -1.06 |
| 17 | 57.6 | -0.07 | -0.96 | -1.03 |
| 16 | 54.0 | -0.03 | -0.90 | -0.93 |
| 15 | 50.4 | 0.00 | -0.84 | -0.84 |
| 14 | 46.8 | 0.00 | -0.78 | -0.78 |
| 13 | 43.2 | 0.00 | -0.72 | -0.72 |
| 12 | 39.6 | 0.01 | -0.66 | -0.65 |
| 11 | 36.0 | 0.00 | -0.60 | -0.60 |
| 10 | 32.4 | 0.00 | -0.54 | -0.54 |
| 9 | 28.8 | 0.01 | -0.48 | -0.47 |
| 8 | 25.2 | 0.02 | -0.42 | -0.40 |
| 7 | 21.6 | 0.04 | -0.36 | -0.32 |
| 6 | 18.0 | 0.08 | -0.30 | -0.22 |
| 5 | 14.4 | 0.07 | -0.24 | -0.17 |
| 4 | 10.8 | 0.05 | -0.18 | -0.13 |
| 3 | 7.2 | 0.03 | -0.12 | -0.09 |
| 2 | 3.6 | 0.03 | -0.06 | -0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.8: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2196+00, MSU St. 41

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.09 | -2.63 | -2.72 |
| 42 | 147.6 | -0.08 | -2.57 | -2.65 |
| 41 | 144.0 | 0.00 | -2.51 | -2.51 |
| 40 | 140.4 | 0.01 | -2.45 | -2.44 |
| 39 | 136.8 | -0.01 | -2.38 | -2.39 |
| 38 | 133.2 | -0.02 | -2.32 | -2.34 |
| 37 | 129.6 | -0.04 | -2.26 | -2.30 |
| 36 | 126.0 | -0.04 | -2.20 | -2.24 |
| 35 | 122.4 | -0.04 | -2.13 | -2.17 |
| 34 | 118.8 | -0.02 | -2.07 | -2.09 |
| 33 | 115.2 | -0.03 | -2.01 | -2.04 |
| 32 | 111.6 | -0.01 | -1.94 | -1.95 |
| 31 | 108.0 | -0.03 | -1.88 | -1.91 |
| 30 | 104.4 | 0.00 | -1.82 | -1.82 |
| 29 | 100.8 | 0.00 | -1.76 | -1.76 |
| 28 | 97.2 | 0.00 | -1.69 | -1.69 |
| 27 | 93.6 | 0.00 | -1.63 | -1.63 |
| 26 | 90.0 | 0.01 | -1.57 | -1.56 |
| 25 | 86.4 | 0.04 | -1.51 | -1.47 |
| 24 | 82.8 | 0.01 | -1.44 | -1.43 |
| 23 | 79.2 | 0.01 | -1.38 | -1.37 |
| 22 | 75.6 | 0.00 | -1.32 | -1.32 |
| 21 | 72.0 | 0.00 | -1.25 | -1.25 |
| 20 | 68.4 | -0.02 | -1.19 | -1.21 |
| 19 | 64.8 | -0.01 | -1.13 | -1.14 |
| 18 | 61.2 | -0.01 | -1.07 | -1.08 |
| 17 | 57.6 | -0.01 | -1.00 | -1.01 |
| 16 | 54.0 | -0.03 | -0.94 | -0.97 |
| 15 | 50.4 | -0.04 | -0.88 | -0.92 |
| 14 | 46.8 | -0.08 | -0.82 | -0.90 |
| 13 | 43.2 | -0.10 | -0.75 | -0.85 |
| 12 | 39.6 | -0.10 | -0.69 | -0.79 |
| 11 | 36.0 | -0.08 | -0.63 | -0.71 |
| 10 | 32.4 | -0.08 | -0.56 | -0.64 |
| 9 | 28.8 | -0.07 | -0.50 | -0.57 |
| 8 | 25.2 | -0.07 | -0.44 | -0.51 |
| 7 | 21.6 | -0.07 | -0.38 | -0.45 |
| 6 | 18.0 | -0.07 | -0.31 | -0.38 |
| 5 | 14.4 | -0.06 | -0.25 | -0.31 |
| 4 | 10.8 | -0.04 | -0.19 | -0.23 |
| 3 | 7.2 | -0.03 | -0.13 | -0.16 |
| 2 | 3.6 | 0.00 | -0.06 | -0.06 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2200+00, MSU St. 42

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.19 | -2.29 | -2.48 |
| 42 | 147.6 | -0.11 | -2.24 | -2.35 |
| 41 | 144.0 | -0.17 | -2.18 | -2.35 |
| 40 | 140.4 | -0.18 | -2.13 | -2.31 |
| 39 | 136.8 | -0.19 | -2.07 | -2.26 |
| 38 | 133.2 | -0.19 | -2.02 | -2.21 |
| 37 | 129.6 | -0.17 | -1.96 | -2.13 |
| 36 | 126.0 | -0.15 | -1.91 | -2.06 |
| 35 | 122.4 | -0.15 | -1.85 | -2.00 |
| 34 | 118.8 | -0.15 | -1.80 | -1.95 |
| 33 | 115.2 | -0.11 | -1.75 | -1.86 |
| 32 | 111.6 | -0.11 | -1.69 | -1.80 |
| 31 | 108.0 | -0.10 | -1.64 | -1.74 |
| 30 | 104.4 | -0.07 | -1.58 | -1.65 |
| 29 | 100.8 | -0.05 | -1.53 | -1.58 |
| 28 | 97.2 | -0.01 | -1.47 | -1.48 |
| 27 | 93.6 | -0.01 | -1.42 | -1.43 |
| 26 | 90.0 | 0.00 | -1.36 | -1.36 |
| 25 | 86.4 | 0.00 | -1.31 | -1.31 |
| 24 | 82.8 | 0.00 | -1.25 | -1.25 |
| 23 | 79.2 | -0.01 | -1.20 | -1.21 |
| 22 | 75.6 | -0.02 | -1.15 | -1.17 |
| 21 | 72.0 | -0.02 | -1.09 | -1.11 |
| 20 | 68.4 | -0.01 | -1.04 | -1.05 |
| 19 | 64.8 | -0.04 | -0.98 | -1.02 |
| 18 | 61.2 | -0.07 | -0.93 | -1.00 |
| 17 | 57.6 | -0.05 | -0.87 | -0.92 |
| 16 | 54.0 | -0.04 | -0.82 | -0.86 |
| 15 | 50.4 | -0.04 | -0.76 | -0.80 |
| 14 | 46.8 | 0.00 | -0.71 | -0.71 |
| 13 | 43.2 | 0.00 | -0.65 | -0.65 |
| 12 | 39.6 | 0.00 | -0.60 | -0.60 |
| 11 | 36.0 | 0.02 | -0.55 | -0.53 |
| 10 | 32.4 | 0.02 | -0.49 | -0.47 |
| 9 | 28.8 | 0.00 | -0.44 | -0.44 |
| 8 | 25.2 | 0.04 | -0.38 | -0.34 |
| 7 | 21.6 | 0.04 | -0.33 | -0.29 |
| 6 | 18.0 | 0.03 | -0.27 | -0.24 |
| 5 | 14.4 | 0.06 | -0.22 | -0.16 |
| 4 | 10.8 | 0.04 | -0.16 | -0.12 |
| 3 | 7.2 | 0.00 | -0.11 | -0.11 |
| 2 | 3.6 | 0.00 | -0.05 | -0.05 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.9: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2208+00, MSU St. 43

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.30 | -2.29 | -2.59 |
| 42 | 147.6 | -0.25 | -2.24 | -2.49 |
| 41 | 144.0 | -0.29 | -2.18 | -2.47 |
| 40 | 140.4 | -0.30 | -2.13 | -2.43 |
| 39 | 136.8 | -0.27 | -2.07 | -2.34 |
| 38 | 133.2 | -0.26 | -2.02 | -2.28 |
| 37 | 129.6 | -0.25 | -1.96 | -2.21 |
| 36 | 126.0 | -0.23 | -1.91 | -2.14 |
| 35 | 122.4 | -0.23 | -1.85 | -2.08 |
| 34 | 118.8 | -0.24 | -1.80 | -2.04 |
| 33 | 115.2 | -0.21 | -1.75 | -1.96 |
| 32 | 111.6 | -0.19 | -1.69 | -1.88 |
| 31 | 108.0 | -0.19 | -1.64 | -1.83 |
| 30 | 104.4 | -0.20 | -1.58 | -1.78 |
| 29 | 100.8 | -0.18 | -1.53 | -1.71 |
| 28 | 97.2 | -0.16 | -1.47 | -1.63 |
| 27 | 93.6 | -0.17 | -1.42 | -1.59 |
| 26 | 90.0 | -0.16 | -1.36 | -1.52 |
| 25 | 86.4 | -0.15 | -1.31 | -1.46 |
| 24 | 82.8 | -0.12 | -1.25 | -1.37 |
| 23 | 79.2 | -0.14 | -1.20 | -1.34 |
| 22 | 75.6 | -0.13 | -1.15 | -1.28 |
| 21 | 72.0 | -0.11 | -1.09 | -1.20 |
| 20 | 68.4 | -0.11 | -1.04 | -1.15 |
| 19 | 64.8 | -0.12 | -0.98 | -1.10 |
| 18 | 61.2 | -0.09 | -0.93 | -1.02 |
| 17 | 57.6 | -0.10 | -0.87 | -0.97 |
| 16 | 54.0 | -0.10 | -0.82 | -0.92 |
| 15 | 50.4 | -0.08 | -0.76 | -0.84 |
| 14 | 46.8 | -0.10 | -0.71 | -0.81 |
| 13 | 43.2 | -0.07 | -0.65 | -0.72 |
| 12 | 39.6 | -0.03 | -0.60 | -0.63 |
| 11 | 36.0 | -0.03 | -0.55 | -0.58 |
| 10 | 32.4 | -0.02 | -0.49 | -0.51 |
| 9 | 28.8 | 0.00 | -0.44 | -0.44 |
| 8 | 25.2 | 0.00 | -0.38 | -0.38 |
| 7 | 21.6 | 0.02 | -0.33 | -0.31 |
| 6 | 18.0 | 0.06 | -0.27 | -0.21 |
| 5 | 14.4 | 0.07 | -0.22 | -0.15 |
| 4 | 10.8 | 0.04 | -0.16 | -0.12 |
| 3 | 7.2 | 0.02 | -0.11 | -0.09 |
| 2 | 3.6 | 0.02 | -0.05 | -0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2214+00, MSU St. 44

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.07 | -2.41 | -2.48 |
| 42 | 147.6 | -0.04 | -2.35 | -2.39 |
| 41 | 144.0 | 0.00 | -2.29 | -2.29 |
| 40 | 140.4 | 0.00 | -2.23 | -2.23 |
| 39 | 136.8 | -0.03 | -2.18 | -2.21 |
| 38 | 133.2 | -0.05 | -2.12 | -2.17 |
| 37 | 129.6 | -0.07 | -2.06 | -2.13 |
| 36 | 126.0 | -0.05 | -2.00 | -2.05 |
| 35 | 122.4 | -0.03 | -1.95 | -1.98 |
| 34 | 118.8 | -0.04 | -1.89 | -1.93 |
| 33 | 115.2 | -0.03 | -1.83 | -1.86 |
| 32 | 111.6 | -0.01 | -1.78 | -1.79 |
| 31 | 108.0 | 0.00 | -1.72 | -1.72 |
| 30 | 104.4 | 0.01 | -1.66 | -1.65 |
| 29 | 100.8 | 0.03 | -1.60 | -1.57 |
| 28 | 97.2 | 0.04 | -1.55 | -1.51 |
| 27 | 93.6 | 0.06 | -1.49 | -1.43 |
| 26 | 90.0 | 0.07 | -1.43 | -1.36 |
| 25 | 86.4 | 0.07 | -1.37 | -1.30 |
| 24 | 82.8 | 0.07 | -1.32 | -1.25 |
| 23 | 79.2 | 0.04 | -1.26 | -1.22 |
| 22 | 75.6 | 0.00 | -1.20 | -1.20 |
| 21 | 72.0 | 0.04 | -1.15 | -1.11 |
| 20 | 68.4 | 0.02 | -1.09 | -1.07 |
| 19 | 64.8 | 0.01 | -1.03 | -1.02 |
| 18 | 61.2 | 0.01 | -0.97 | -0.96 |
| 17 | 57.6 | -0.01 | -0.92 | -0.93 |
| 16 | 54.0 | -0.03 | -0.86 | -0.89 |
| 15 | 50.4 | 0.00 | -0.80 | -0.80 |
| 14 | 46.8 | -0.01 | -0.74 | -0.75 |
| 13 | 43.2 | -0.03 | -0.69 | -0.72 |
| 12 | 39.6 | 0.00 | -0.63 | -0.63 |
| 11 | 36.0 | 0.01 | -0.57 | -0.56 |
| 10 | 32.4 | 0.02 | -0.52 | -0.50 |
| 9 | 28.8 | 0.04 | -0.46 | -0.42 |
| 8 | 25.2 | 0.03 | -0.40 | -0.37 |
| 7 | 21.6 | -0.01 | -0.34 | -0.35 |
| 6 | 18.0 | 0.02 | -0.29 | -0.27 |
| 5 | 14.4 | 0.02 | -0.23 | -0.21 |
| 4 | 10.8 | 0.03 | -0.17 | -0.14 |
| 3 | 7.2 | 0.04 | -0.11 | -0.07 |
| 2 | 3.6 | 0.04 | -0.06 | -0.02 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.10: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2220+00, MSU St. 45

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | 0.01 | -2.63 | -2.62 |
| 42 | 147.6 | 0.03 | -2.57 | -2.54 |
| 41 | 144.0 | 0.03 | -2.51 | -2.48 |
| 40 | 140.4 | 0.06 | -2.45 | -2.39 |
| 39 | 136.8 | 0.05 | -2.38 | -2.33 |
| 38 | 133.2 | 0.03 | -2.32 | -2.29 |
| 37 | 129.6 | 0.05 | -2.26 | -2.21 |
| 36 | 126.0 | 0.05 | -2.20 | -2.15 |
| 35 | 122.4 | 0.04 | -2.13 | -2.09 |
| 34 | 118.8 | 0.06 | -2.07 | -2.01 |
| 33 | 115.2 | 0.07 | -2.01 | -1.94 |
| 32 | 111.6 | 0.06 | -1.94 | -1.88 |
| 31 | 108.0 | 0.07 | -1.88 | -1.81 |
| 30 | 104.4 | 0.08 | -1.82 | -1.74 |
| 29 | 100.8 | 0.06 | -1.76 | -1.70 |
| 28 | 97.2 | 0.07 | -1.69 | -1.62 |
| 27 | 93.6 | 0.06 | -1.63 | -1.57 |
| 26 | 90.0 | 0.07 | -1.57 | -1.50 |
| 25 | 86.4 | 0.07 | -1.51 | -1.44 |
| 24 | 82.8 | 0.04 | -1.44 | -1.40 |
| 23 | 79.2 | 0.04 | -1.38 | -1.34 |
| 22 | 75.6 | 0.04 | -1.32 | -1.28 |
| 21 | 72.0 | 0.03 | -1.25 | -1.22 |
| 20 | 68.4 | 0.02 | -1.19 | -1.17 |
| 19 | 64.8 | 0.01 | -1.13 | -1.12 |
| 18 | 61.2 | 0.01 | -1.07 | -1.06 |
| 17 | 57.6 | 0.01 | -1.00 | -0.99 |
| 16 | 54.0 | 0.00 | -0.94 | -0.94 |
| 15 | 50.4 | 0.00 | -0.88 | -0.88 |
| 14 | 46.8 | 0.00 | -0.82 | -0.82 |
| 13 | 43.2 | 0.00 | -0.75 | -0.75 |
| 12 | 39.6 | 0.00 | -0.69 | -0.69 |
| 11 | 36.0 | 0.01 | -0.63 | -0.62 |
| 10 | 32.4 | 0.00 | -0.56 | -0.56 |
| 9 | 28.8 | 0.01 | -0.50 | -0.49 |
| 8 | 25.2 | 0.00 | -0.44 | -0.44 |
| 7 | 21.6 | 0.00 | -0.38 | -0.38 |
| 6 | 18.0 | 0.01 | -0.31 | -0.30 |
| 5 | 14.4 | 0.00 | -0.25 | -0.25 |
| 4 | 10.8 | 0.00 | -0.19 | -0.19 |
| 3 | 7.2 | 0.00 | -0.13 | -0.13 |
| 2 | 3.6 | 0.00 | -0.06 | -0.06 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2226+00, MSU St. 46

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.01 | -2.63 | -2.64 |
| 42 | 147.6 | 0.07 | -2.57 | -2.50 |
| 41 | 144.0 | 0.00 | -2.51 | -2.51 |
| 40 | 140.4 | 0.00 | -2.45 | -2.45 |
| 39 | 136.8 | 0.02 | -2.38 | -2.36 |
| 38 | 133.2 | 0.03 | -2.32 | -2.29 |
| 37 | 129.6 | 0.03 | -2.26 | -2.23 |
| 36 | 126.0 | 0.04 | -2.20 | -2.16 |
| 35 | 122.4 | 0.05 | -2.13 | -2.08 |
| 34 | 118.8 | 0.05 | -2.07 | -2.02 |
| 33 | 115.2 | 0.08 | -2.01 | -1.93 |
| 32 | 111.6 | 0.08 | -1.94 | -1.86 |
| 31 | 108.0 | 0.09 | -1.88 | -1.79 |
| 30 | 104.4 | 0.09 | -1.82 | -1.73 |
| 29 | 100.8 | 0.10 | -1.76 | -1.66 |
| 28 | 97.2 | 0.10 | -1.69 | -1.59 |
| 27 | 93.6 | 0.11 | -1.63 | -1.52 |
| 26 | 90.0 | 0.10 | -1.57 | -1.47 |
| 25 | 86.4 | 0.10 | -1.51 | -1.41 |
| 24 | 82.8 | 0.09 | -1.44 | -1.35 |
| 23 | 79.2 | 0.06 | -1.38 | -1.32 |
| 22 | 75.6 | 0.07 | -1.32 | -1.25 |
| 21 | 72.0 | 0.05 | -1.25 | -1.20 |
| 20 | 68.4 | 0.05 | -1.19 | -1.14 |
| 19 | 64.8 | 0.04 | -1.13 | -1.09 |
| 18 | 61.2 | 0.01 | -1.07 | -1.06 |
| 17 | 57.6 | 0.03 | -1.00 | -0.97 |
| 16 | 54.0 | 0.02 | -0.94 | -0.92 |
| 15 | 50.4 | 0.01 | -0.88 | -0.87 |
| 14 | 46.8 | 0.03 | -0.82 | -0.79 |
| 13 | 43.2 | 0.01 | -0.75 | -0.74 |
| 12 | 39.6 | 0.01 | -0.69 | -0.68 |
| 11 | 36.0 | 0.03 | -0.63 | -0.60 |
| 10 | 32.4 | 0.01 | -0.56 | -0.55 |
| 9 | 28.8 | 0.00 | -0.50 | -0.50 |
| 8 | 25.2 | 0.02 | -0.44 | -0.42 |
| 7 | 21.6 | 0.02 | -0.38 | -0.36 |
| 6 | 18.0 | 0.04 | -0.31 | -0.27 |
| 5 | 14.4 | 0.06 | -0.25 | -0.19 |
| 4 | 10.8 | 0.06 | -0.19 | -0.13 |
| 3 | 7.2 | 0.04 | -0.13 | -0.09 |
| 2 | 3.6 | 0.04 | -0.06 | -0.02 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.11: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2232+00, MSU St. 47

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.13 | -2.63 | -2.76 |
| 42 | 147.6 | -0.06 | -2.57 | -2.63 |
| 41 | 144.0 | -0.08 | -2.51 | -2.59 |
| 40 | 140.4 | -0.05 | -2.45 | -2.50 |
| 39 | 136.8 | -0.06 | -2.38 | -2.44 |
| 38 | 133.2 | -0.06 | -2.32 | -2.38 |
| 37 | 129.6 | -0.06 | -2.26 | -2.32 |
| 36 | 126.0 | -0.07 | -2.20 | -2.27 |
| 35 | 122.4 | -0.06 | -2.13 | -2.19 |
| 34 | 118.8 | -0.06 | -2.07 | -2.13 |
| 33 | 115.2 | -0.05 | -2.01 | -2.06 |
| 32 | 111.6 | -0.04 | -1.94 | -1.98 |
| 31 | 108.0 | -0.04 | -1.88 | -1.92 |
| 30 | 104.4 | -0.07 | -1.82 | -1.89 |
| 29 | 100.8 | -0.07 | -1.76 | -1.83 |
| 28 | 97.2 | -0.08 | -1.69 | -1.77 |
| 27 | 93.6 | -0.07 | -1.63 | -1.70 |
| 26 | 90.0 | -0.05 | -1.57 | -1.62 |
| 25 | 86.4 | -0.05 | -1.51 | -1.56 |
| 24 | 82.8 | -0.06 | -1.44 | -1.50 |
| 23 | 79.2 | -0.07 | -1.38 | -1.45 |
| 22 | 75.6 | -0.09 | -1.32 | -1.41 |
| 21 | 72.0 | -0.09 | -1.25 | -1.34 |
| 20 | 68.4 | -0.09 | -1.19 | -1.28 |
| 19 | 64.8 | -0.11 | -1.13 | -1.24 |
| 18 | 61.2 | -0.11 | -1.07 | -1.18 |
| 17 | 57.6 | -0.13 | -1.00 | -1.13 |
| 16 | 54.0 | -0.12 | -0.94 | -1.06 |
| 15 | 50.4 | -0.13 | -0.88 | -1.01 |
| 14 | 46.8 | -0.11 | -0.82 | -0.93 |
| 13 | 43.2 | -0.13 | -0.75 | -0.88 |
| 12 | 39.6 | -0.12 | -0.69 | -0.81 |
| 11 | 36.0 | -0.12 | -0.63 | -0.75 |
| 10 | 32.4 | -0.11 | -0.56 | -0.67 |
| 9 | 28.8 | -0.11 | -0.50 | -0.61 |
| 8 | 25.2 | -0.10 | -0.44 | -0.54 |
| 7 | 21.6 | -0.10 | -0.38 | -0.48 |
| 6 | 18.0 | -0.08 | -0.31 | -0.39 |
| 5 | 14.4 | -0.08 | -0.25 | -0.33 |
| 4 | 10.8 | -0.06 | -0.19 | -0.25 |
| 3 | 7.2 | -0.05 | -0.13 | -0.18 |
| 2 | 3.6 | -0.04 | -0.06 | -0.10 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2238+00, MSU St. 48

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.10 | -2.63 | -2.73 |
| 42 | 147.6 | -0.02 | -2.57 | -2.59 |
| 41 | 144.0 | -0.05 | -2.51 | -2.56 |
| 40 | 140.4 | -0.04 | -2.45 | -2.49 |
| 39 | 136.8 | -0.03 | -2.38 | -2.41 |
| 38 | 133.2 | -0.03 | -2.32 | -2.35 |
| 37 | 129.6 | -0.03 | -2.26 | -2.29 |
| 36 | 126.0 | -0.03 | -2.20 | -2.23 |
| 35 | 122.4 | -0.04 | -2.13 | -2.17 |
| 34 | 118.8 | -0.04 | -2.07 | -2.11 |
| 33 | 115.2 | -0.03 | -2.01 | -2.04 |
| 32 | 111.6 | -0.03 | -1.94 | -1.97 |
| 31 | 108.0 | -0.02 | -1.88 | -1.90 |
| 30 | 104.4 | -0.02 | -1.82 | -1.84 |
| 29 | 100.8 | -0.01 | -1.76 | -1.77 |
| 28 | 97.2 | -0.01 | -1.69 | -1.70 |
| 27 | 93.6 | 0.00 | -1.63 | -1.63 |
| 26 | 90.0 | 0.00 | -1.57 | -1.57 |
| 25 | 86.4 | -0.01 | -1.51 | -1.52 |
| 24 | 82.8 | -0.02 | -1.44 | -1.46 |
| 23 | 79.2 | 0.00 | -1.38 | -1.38 |
| 22 | 75.6 | 0.00 | -1.32 | -1.32 |
| 21 | 72.0 | -0.03 | -1.25 | -1.28 |
| 20 | 68.4 | -0.02 | -1.19 | -1.21 |
| 19 | 64.8 | -0.01 | -1.13 | -1.14 |
| 18 | 61.2 | -0.03 | -1.07 | -1.10 |
| 17 | 57.6 | -0.02 | -1.00 | -1.02 |
| 16 | 54.0 | -0.04 | -0.94 | -0.98 |
| 15 | 50.4 | -0.03 | -0.88 | -0.91 |
| 14 | 46.8 | -0.02 | -0.82 | -0.84 |
| 13 | 43.2 | 0.00 | -0.75 | -0.75 |
| 12 | 39.6 | 0.00 | -0.69 | -0.69 |
| 11 | 36.0 | 0.04 | -0.63 | -0.59 |
| 10 | 32.4 | 0.03 | -0.56 | -0.53 |
| 9 | 28.8 | 0.03 | -0.50 | -0.47 |
| 8 | 25.2 | 0.03 | -0.44 | -0.41 |
| 7 | 21.6 | 0.04 | -0.38 | -0.34 |
| 6 | 18.0 | 0.03 | -0.31 | -0.28 |
| 5 | 14.4 | 0.05 | -0.25 | -0.20 |
| 4 | 10.8 | 0.06 | -0.19 | -0.13 |
| 3 | 7.2 | 0.04 | -0.13 | -0.09 |
| 2 | 3.6 | 0.00 | -0.06 | -0.06 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.12: Coordinates of the Fifth Annual Post-Construction Pavement Profile of Eastbound Passing Lane

2244+00, MSU St. 49

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.23 | -2.63 | -2.86 |
| 42 | 147.6 | -0.21 | -2.57 | -2.78 |
| 41 | 144.0 | -0.20 | -2.51 | -2.71 |
| 40 | 140.4 | -0.20 | -2.45 | -2.65 |
| 39 | 136.8 | -0.20 | -2.38 | -2.58 |
| 38 | 133.2 | -0.18 | -2.32 | -2.50 |
| 37 | 129.6 | 0.17 | -2.26 | -2.09 |
| 36 | 126.0 | -0.17 | -2.20 | -2.37 |
| 35 | 122.4 | -0.13 | -2.13 | -2.26 |
| 34 | 118.8 | -0.12 | -2.07 | -2.19 |
| 33 | 115.2 | -0.11 | -2.01 | -2.12 |
| 32 | 111.6 | -0.09 | -1.94 | -2.03 |
| 31 | 108.0 | -0.09 | -1.88 | -1.97 |
| 30 | 104.4 | -0.09 | -1.82 | -1.91 |
| 29 | 100.8 | -0.05 | -1.76 | -1.81 |
| 28 | 97.2 | -0.05 | -1.69 | -1.74 |
| 27 | 93.6 | -0.06 | -1.63 | -1.69 |
| 26 | 90.0 | -0.06 | -1.57 | -1.63 |
| 25 | 86.4 | -0.06 | -1.51 | -1.57 |
| 24 | 82.8 | -0.08 | -1.44 | -1.52 |
| 23 | 79.2 | -0.08 | -1.38 | -1.46 |
| 22 | 75.6 | -0.08 | -1.32 | -1.40 |
| 21 | 72.0 | -0.08 | -1.25 | -1.33 |
| 20 | 68.4 | -0.05 | -1.19 | -1.24 |
| 19 | 64.8 | -0.06 | -1.13 | -1.19 |
| 18 | 61.2 | -0.06 | -1.07 | -1.13 |
| 17 | 57.6 | -0.04 | -1.00 | -1.04 |
| 16 | 54.0 | -0.03 | -0.94 | -0.97 |
| 15 | 50.4 | -0.04 | -0.88 | -0.92 |
| 14 | 46.8 | -0.05 | -0.82 | -0.87 |
| 13 | 43.2 | -0.03 | -0.75 | -0.78 |
| 12 | 39.6 | -0.03 | -0.69 | -0.72 |
| 11 | 36.0 | -0.04 | -0.63 | -0.67 |
| 10 | 32.4 | -0.03 | -0.56 | -0.59 |
| 9 | 28.8 | -0.03 | -0.50 | -0.53 |
| 8 | 25.2 | -0.02 | -0.44 | -0.46 |
| 7 | 21.6 | -0.01 | -0.38 | -0.39 |
| 6 | 18.0 | -0.03 | -0.31 | -0.34 |
| 5 | 14.4 | -0.01 | -0.25 | -0.26 |
| 4 | 10.8 | 0.00 | -0.19 | -0.19 |
| 3 | 7.2 | 0.00 | -0.13 | -0.13 |
| 2 | 3.6 | 0.01 | -0.06 | -0.05 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2250+00, MSU St. 50

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.22 | -2.63 | -2.85 |
| 42 | 147.6 | -0.26 | -2.57 | -2.83 |
| 41 | 144.0 | -0.23 | -2.51 | -2.74 |
| 40 | 140.4 | -0.23 | -2.45 | -2.68 |
| 39 | 136.8 | -0.25 | -2.38 | -2.63 |
| 38 | 133.2 | -0.24 | -2.32 | -2.56 |
| 37 | 129.6 | -0.23 | -2.26 | -2.49 |
| 36 | 126.0 | -0.22 | -2.20 | -2.42 |
| 35 | 122.4 | -0.20 | -2.13 | -2.33 |
| 34 | 118.8 | -0.20 | -2.07 | -2.27 |
| 33 | 115.2 | -0.20 | -2.01 | -2.21 |
| 32 | 111.6 | -0.20 | -1.94 | -2.14 |
| 31 | 108.0 | -0.19 | -1.88 | -2.07 |
| 30 | 104.4 | -0.17 | -1.82 | -1.99 |
| 29 | 100.8 | -0.18 | -1.76 | -1.94 |
| 28 | 97.2 | -0.17 | -1.69 | -1.86 |
| 27 | 93.6 | -0.16 | -1.63 | -1.79 |
| 26 | 90.0 | -0.18 | -1.57 | -1.75 |
| 25 | 86.4 | -0.20 | -1.51 | -1.71 |
| 24 | 82.8 | -0.22 | -1.44 | -1.66 |
| 23 | 79.2 | -0.23 | -1.38 | -1.61 |
| 22 | 75.6 | -0.20 | -1.32 | -1.52 |
| 21 | 72.0 | -0.21 | -1.25 | -1.46 |
| 20 | 68.4 | -0.23 | -1.19 | -1.42 |
| 19 | 64.8 | -0.23 | -1.13 | -1.36 |
| 18 | 61.2 | -0.22 | -1.07 | -1.29 |
| 17 | 57.6 | -0.21 | -1.00 | -1.21 |
| 16 | 54.0 | -0.19 | -0.94 | -1.13 |
| 15 | 50.4 | -0.19 | -0.88 | -1.07 |
| 14 | 46.8 | -0.17 | -0.82 | -0.99 |
| 13 | 43.2 | -0.13 | -0.75 | -0.88 |
| 12 | 39.6 | -0.13 | -0.69 | -0.82 |
| 11 | 36.0 | -0.12 | -0.63 | -0.75 |
| 10 | 32.4 | -0.10 | -0.56 | -0.66 |
| 9 | 28.8 | -0.11 | -0.50 | -0.61 |
| 8 | 25.2 | -0.10 | -0.44 | -0.54 |
| 7 | 21.6 | -0.09 | -0.38 | -0.47 |
| 6 | 18.0 | -0.08 | -0.31 | -0.39 |
| 5 | 14.4 | -0.07 | -0.25 | -0.32 |
| 4 | 10.8 | -0.04 | -0.19 | -0.23 |
| 3 | 7.2 | -0.03 | -0.13 | -0.16 |
| 2 | 3.6 | 0.00 | -0.06 | -0.06 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 45.13: Coordinates of the Fifth Annual Post-Construction Pavement Profile of East Bound Passing Lane

2254+00, MSU St. 51

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.12 | -2.41 | -2.53 |
| 42 | 147.6 | -0.13 | -2.35 | -2.48 |
| 41 | 144.0 | -0.12 | -2.30 | -2.42 |
| 40 | 140.4 | -0.14 | -2.24 | -2.38 |
| 39 | 136.8 | -0.15 | -2.18 | -2.33 |
| 38 | 133.2 | -0.13 | -2.12 | -2.25 |
| 37 | 129.6 | -0.11 | -2.07 | -2.18 |
| 36 | 126.0 | -0.10 | -2.01 | -2.11 |
| 35 | 122.4 | -0.08 | -1.95 | -2.03 |
| 34 | 118.8 | -0.07 | -1.90 | -1.97 |
| 33 | 115.2 | -0.07 | -1.84 | -1.91 |
| 32 | 111.6 | -0.06 | -1.78 | -1.84 |
| 31 | 108.0 | -0.04 | -1.72 | -1.76 |
| 30 | 104.4 | 0.00 | -1.67 | -1.67 |
| 29 | 100.8 | -0.02 | -1.61 | -1.63 |
| 28 | 97.2 | -0.03 | -1.55 | -1.58 |
| 27 | 93.6 | -0.06 | -1.49 | -1.55 |
| 26 | 90.0 | -0.05 | -1.44 | -1.49 |
| 25 | 86.4 | -0.07 | -1.38 | -1.45 |
| 24 | 82.8 | -0.11 | -1.32 | -1.43 |
| 23 | 79.2 | -0.10 | -1.27 | -1.37 |
| 22 | 75.6 | -0.08 | -1.21 | -1.29 |
| 21 | 72.0 | -0.11 | -1.15 | -1.26 |
| 20 | 68.4 | -0.12 | -1.09 | -1.21 |
| 19 | 64.8 | -0.11 | -1.04 | -1.15 |
| 18 | 61.2 | -0.11 | -0.98 | -1.09 |
| 17 | 57.6 | -0.11 | -0.92 | -1.03 |
| 16 | 54.0 | -0.09 | -0.86 | -0.95 |
| 15 | 50.4 | -0.09 | -0.81 | -0.90 |
| 14 | 46.8 | -0.09 | -0.75 | -0.84 |
| 13 | 43.2 | -0.07 | -0.69 | -0.76 |
| 12 | 39.6 | -0.10 | -0.64 | -0.74 |
| 11 | 36.0 | -0.10 | -0.58 | -0.68 |
| 10 | 32.4 | -0.09 | -0.52 | -0.61 |
| 9 | 28.8 | -0.08 | -0.46 | -0.54 |
| 8 | 25.2 | -0.10 | -0.41 | -0.51 |
| 7 | 21.6 | -0.07 | -0.35 | -0.42 |
| 6 | 18.0 | -0.08 | -0.29 | -0.37 |
| 5 | 14.4 | -0.08 | -0.23 | -0.31 |
| 4 | 10.8 | -0.09 | -0.17 | -0.26 |
| 3 | 7.2 | -0.06 | -0.11 | -0.17 |
| 2 | 3.6 | 0.03 | -0.06 | -0.03 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

2260+00, MSU St. 52

| Point | Pavement Width (X) | Profilograph Coordinates | Profilograph Level (in) | Pavement Elevation(Y) |
|---|---|---|---|---|
| 43 | 151.2 | -0.12 | -1.49 | -1.61 |
| 42 | 147.6 | -0.11 | -1.45 | -1.56 |
| 41 | 144.0 | -0.10 | -1.42 | -1.52 |
| 40 | 140.4 | -0.09 | -1.38 | -1.47 |
| 39 | 136.8 | -0.09 | -1.35 | -1.44 |
| 38 | 133.2 | -0.09 | -1.31 | -1.40 |
| 37 | 129.6 | -0.05 | -1.28 | -1.33 |
| 36 | 126.0 | -0.05 | -1.24 | -1.29 |
| 35 | 122.4 | -0.03 | -1.21 | -1.24 |
| 34 | 118.8 | -0.01 | -1.17 | -1.18 |
| 33 | 115.2 | 0.00 | -1.13 | -1.13 |
| 32 | 111.6 | 0.00 | -1.10 | -1.10 |
| 31 | 108.0 | 0.02 | -1.06 | -1.04 |
| 30 | 104.4 | 0.03 | -1.03 | -1.00 |
| 29 | 100.8 | 0.01 | -0.99 | -0.98 |
| 28 | 97.2 | 0.01 | -0.96 | -0.95 |
| 27 | 93.6 | 0.00 | -0.92 | -0.92 |
| 26 | 90.0 | -0.02 | -0.89 | -0.91 |
| 25 | 86.4 | -0.03 | -0.85 | -0.88 |
| 24 | 82.8 | -0.03 | -0.82 | -0.85 |
| 23 | 79.2 | -0.04 | -0.78 | -0.82 |
| 22 | 75.6 | -0.04 | -0.74 | -0.78 |
| 21 | 72.0 | -0.02 | -0.71 | -0.73 |
| 20 | 68.4 | -0.03 | -0.67 | -0.70 |
| 19 | 64.8 | -0.01 | -0.64 | -0.65 |
| 18 | 61.2 | -0.05 | -0.60 | -0.65 |
| 17 | 57.6 | -0.03 | -0.57 | -0.60 |
| 16 | 54.0 | -0.04 | -0.53 | -0.57 |
| 15 | 50.4 | -0.02 | -0.50 | -0.52 |
| 14 | 46.8 | -0.01 | -0.46 | -0.47 |
| 13 | 43.2 | -0.04 | -0.43 | -0.47 |
| 12 | 39.6 | -0.01 | -0.39 | -0.40 |
| 11 | 36.0 | -0.02 | -0.35 | -0.37 |
| 10 | 32.4 | -0.03 | -0.32 | -0.35 |
| 9 | 28.8 | -0.04 | -0.28 | -0.32 |
| 8 | 25.2 | -0.04 | -0.25 | -0.29 |
| 7 | 21.6 | -0.05 | -0.21 | -0.26 |
| 6 | 18.0 | -0.02 | -0.18 | -0.20 |
| 5 | 14.4 | -0.04 | -0.14 | -0.18 |
| 4 | 10.8 | 0.00 | -0.11 | -0.11 |
| 3 | 7.2 | 0.07 | -0.07 | -0.00 |
| 2 | 3.6 | 0.02 | -0.04 | -0.02 |
| 1 | 0.0 | 0.00 | 0.00 | 0.00 |

Table 46.1: Fifth Annual Post-Construction Rut Depth on Westbound Field Experimental Test Section.

| MSU Station Number | Highway Station | Binder Used | West Bound Passing Lane (WBPL) Left Wheel Path (LWP) (in) | Right Wheel Path (RWP) (in) | Center (in) | West Bound Driving Lane (WBDL) Left Wheel Path (LWP) (in) | Right Wheel Path (RWP) (in) | Center (in) |
|---|---|---|---|---|---|---|---|---|
| 1 | 2260+00 | Polybilt | 0.06 | 0.07 | 0.00 | 0.19 | 0.24 | 0.00 |
| 2 | 2254+00 | Polybilt | 0.09 | 0.07 | 0.00 | 0.22 | 0.20 | 0.00 |
| 3 | 2250+00 | Polybilt | 0.06 | 0.08 | 0.00 | 0.12 | 0.24 | 0.00 |
| 4 | 2244+00 | Polybilt | 0.07 | 0.09 | 0.00 | 0.20 | 0.17 | 0.00 |
| 5 | 2238+00 | Polybilt | 0.03 | 0.03 | 0.00 | 0.14 | 0.20 | 0.00 |
| 6 | 2232+00 | Polybilt | 0.05 | 0.08 | 0.00 | 0.12 | 0.14 | 0.00 |
| 7 | 2226+00 | Polybilt | 0.07 | 0.14 | 0.00 | 0.09 | 0.16 | 0.00 |
| 8 | 2220+00 | Polybilt | 0.04 | 0.10 | 0.00 | 0.12 | 0.14 | 0.00 |
| 9 | 2214+00 | Polybilt | 0.07 | 0.07 | 0.00 | 0.12 | 0.17 | 0.00 |
| 10 | 2208+00 | Polybilt | 0.08 | 0.15 | 0.00 | 0.13 | 0.15 | 0.00 |
| 11 | 2200+00 | Exxon | 0.08 | 0.09 | 0.00 | 0.53 | 0.57 | 0.00 |
| 12 | 2196+00 | Exxon | 0.08 | 0.13 | 0.00 | 0.59 | 0.60 | 0.00 |
| 13 | 2192+00 | Exxon | 0.12 | 0.20 | 0.00 | 0.56 | 0.57 | 0.00 |
| 14 | 2188+00 | Exxon | 0.09 | 0.10 | 0.00 | 0.54 | 0.50 | 0.00 |
| 15 | 2184+00 | Exxon | 0.14 | 0.15 | 0.00 | 0.49 | 0.53 | 0.00 |
| 16 | 2180+00 | Exxon | 0.09 | 0.10 | 0.00 | 0.45 | 0.51 | 0.00 |
| 17 | 2176+00 | Exxon | 0.15 | 0.13 | 0.00 | 0.41 | 0.54 | 0.00 |
| 18 | 2170+00 | Kraton | 0.09 | 0.16 | 0.00 | 0.18 | 0.20 | 0.00 |
| 19 | 2164+00 | Kraton | 0.07 | 0.10 | 0.00 | 0.17 | 0.21 | 0.00 |
| 20 | 2160+00 | Kraton | 0.06 | 0.13 | 0.00 | 0.11 | 0.18 | 0.00 |
| 21 | 2154+00 | Kraton | 0.10 | 0.08 | 0.00 | 0.17 | 0.13 | 0.00 |
| 22 | 2150+00 | Kraton | 0.04 | 0.03 | 0.00 | 0.11 | 0.12 | 0.00 |
| 23 | 2144+00 | Kraton | 0.07 | 0.13 | 0.00 | 0.09 | 0.18 | 0.00 |
| 24 | 2138+00 | Kraton | 0.05 | 0.09 | 0.00 | 0.11 | 0.10 | 0.00 |
| 25 | 2134+00 | Kraton | 0.06 | 0.08 | 0.00 | 0.10 | 0.10 | 0.00 |
| 26 | 2130+00 | Kraton | 0.07 | 0.07 | 0.00 | 0.08 | 0.09 | 0.00 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Average Rut Depth | 0.08 | 0.10 | 0.00 | 0.24 | 0.27 | 0.00 |
| Standard Deviation | 0.03 | 0.04 | 0.00 | 0.18 | 0.18 | 0.00 |
| Maximum Rut Depth | 0.15 | 0.20 | 0.00 | 0.59 | 0.60 | 0.00 |
| Minimum Rut Depth | 0.03 | 0.03 | 0.00 | 0.08 | 0.09 | 0.00 |

Statistics of Rut Depth by Section of Modified Binder Used on West Bound Passing and Driving Lanes

| Statistics of Rut Depth on LWP of WBPL | | | | | | Statistics of Rut Depth on RWP of WBPL | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Binder | Average | Maximum | Minimum | Std. Dev. | Variance | Binder | Average | Maximu | Minimum | Std. Dev. | Variance |
| Polybilt | 0.06 | 0.09 | 0.03 | 0.018 | 0.00033 | Polybilt | 0.09 | 0.15 | 0.03 | 0.035 | 0.00124 |
| Kraton | 0.07 | 0.10 | 0.04 | 0.019 | 0.00034 | Kraton | 0.10 | 0.16 | 0.03 | 0.039 | 0.00150 |
| Exxon | 0.11 | 0.15 | 0.08 | 0.029 | 0.00086 | Exxon | 0.13 | 0.20 | 0.09 | 0.038 | 0.00145 |

| Statistics of Rut Depth on LWP of WBDL | | | | | | Statistics of Rut Depth on RWP of WBDL | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Binder | Average | Maximum | Minimum | Std. Dev. | Variance | Binder | Average | Maximu | Minimum | Std. Dev. | Variance |
| Polybilt | 0.15 | 0.22 | 0.09 | 0.043 | 0.00183 | Polybilt | 0.18 | 0.24 | 0.14 | 0.038 | 0.00141 |
| Kraton | 0.12 | 0.18 | 0.08 | 0.038 | 0.00145 | Kraton | 0.15 | 0.21 | 0.09 | 0.047 | 0.00220 |
| Exxon | 0.51 | 0.59 | 0.41 | 0.064 | 0.00403 | Exxon | 0.55 | 0.60 | 0.50 | 0.036 | 0.00130 |

Table 46.2: Fifth Annual Post-Construction Rut Depth on Eastbound Field Experimental Test Section.

| MSU Station Number | Highway Station | Binder Used | East Bound Passing Lane (EBPL) | | | East Bound Driving Lane (EBDL) | | |
|---|---|---|---|---|---|---|---|---|
| | | | Left Wheel Path (LWP) (in) | Right Wheel Path (RWP) (in) | Center (in) | Left Wheel Path (LWP) (in) | Right Wheel Path (RWP) (in) | Center (in) |
| 27 | 2130+00 | Polybilt | 0.11 | 0.08 | 0.00 | 0.21 | 0.18 | 0.00 |
| 28 | 2134+00 | Polybilt | 0.05 | 0.05 | 0.00 | 0.17 | 0.17 | 0.00 |
| 29 | 2138+00 | Polybilt | 0.07 | 0.08 | 0.00 | 0.19 | 0.17 | 0.00 |
| 30 | 2144+00 | Polybilt | 0.08 | 0.08 | 0.00 | 0.20 | 0.19 | 0.00 |
| 31 | 2150+00 | Polybilt | 0.07 | 0.08 | 0.00 | 0.17 | 0.30 | 0.00 |
| 32 | 2154+00 | Polybilt | 0.08 | 0.07 | 0.00 | 0.17 | 0.16 | 0.00 |
| 33 | 2160+00 | Polybilt | 0.08 | 0.09 | 0.00 | 0.10 | 0.15 | 0.00 |
| 34 | 2164+00 | Polybilt | 0.11 | 0.12 | 0.00 | 0.19 | 0.17 | 0.00 |
| 35 | 2170+00 | Polybilt | 0.07 | 0.09 | 0.00 | 0.10 | 0.12 | 0.00 |
| 36 | 2176+00 | Exxon | 0.06 | 0.06 | 0.00 | 0.25 | 0.30 | 0.00 |
| 37 | 2180+00 | Exxon | 0.09 | 0.05 | 0.00 | 0.49 | 0.49 | 0.00 |
| 38 | 2184+00 | Exxon | 0.09 | 0.09 | 0.00 | 0.50 | 0.56 | 0.00 |
| 39 | 2188+00 | Exxon | 0.12 | 0.09 | 0.00 | 0.54 | 0.61 | 0.00 |
| 40 | 2192+00 | Exxon | 0.11 | 0.08 | 0.00 | 0.51 | 0.51 | 0.00 |
| 41 | 2196+00 | Exxon | 0.13 | 0.06 | 0.00 | 0.68 | 0.63 | 0.00 |
| 42 | 2200+00 | Exxon | 0.12 | 0.12 | 0.00 | 0.64 | 0.63 | 0.00 |
| 43 | 2208+00 | Kraton | 0.07 | 0.04 | 0.00 | 0.12 | 0.13 | 0.00 |
| 44 | 2214+00 | Kraton | 0.08 | 0.08 | 0.00 | 0.20 | 0.19 | 0.00 |
| 45 | 2220+00 | Kraton | 0.06 | 0.04 | 0.00 | 0.18 | 0.19 | 0.00 |
| 46 | 2226+00 | Kraton | 0.06 | 0.04 | 0.00 | 0.21 | 0.19 | 0.00 |
| 47 | 2232+00 | Kraton | 0.09 | 0.02 | 0.00 | 0.16 | 0.16 | 0.00 |
| 48 | 2238+00 | Kraton | 0.07 | 0.04 | 0.00 | 0.19 | 0.13 | 0.00 |
| 49 | 2244+00 | Kraton | 0.03 | 0.06 | 0.00 | 0.17 | 0.18 | 0.00 |
| 50 | 2250+00 | Kraton | 0.10 | 0.07 | 0.00 | 0.18 | 0.15 | 0.00 |
| 51 | 2254+00 | Kraton | 0.08 | 0.09 | 0.00 | 0.15 | 0.18 | 0.00 |
| 52 | 2260+00 | Kraton | 0.08 | 0.06 | 0.00 | 0.20 | 0.21 | 0.00 |
| Overall Average Rut Depth | | | 0.08 | 0.07 | 0.00 | 0.26 | 0.27 | 0.00 |
| Overall Standard Deviation | | | 0.02 | 0.02 | 0.00 | 0.17 | 0.17 | 0.00 |
| Overall Maximum Rut Depth | | | 0.13 | 0.12 | 0.00 | 0.68 | 0.63 | 0.00 |
| Overall Minimum Rut Depth | | | 0.03 | 0.02 | 0.00 | 0.10 | 0.12 | 0.00 |

Statistics of Rut Depth by Section of Modified Binder Used on East Bound Passing and Driving Lanes

| Statistics of Rut Depth on LWP of EBPL | | | | | | Statistics of Rut Depth on RWP of EBPL | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Binder | Average | Maximum | Minimum | Std. Dev. | Variance | Binder | Average | Maximum | Minimum | Std. Dev. | Variance |
| Polybilt | 0.08 | 0.11 | 0.05 | 0.019 | 0.00038 | Polybilt | 0.08 | 0.12 | 0.05 | 0.019 | 0.00034 |
| Kraton | 0.07 | 0.10 | 0.03 | 0.019 | 0.00037 | Kraton | 0.05 | 0.09 | 0.02 | 0.022 | 0.00047 |
| Exxon | 0.10 | 0.13 | 0.06 | 0.024 | 0.00059 | Exxon | 0.08 | 0.12 | 0.05 | 0.024 | 0.00058 |

| Statistics of Rut Depth on LWP of EBDL | | | | | | Statistics of Rut Depth on RWP of EBDL | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Binder | Average | Maximum | Minimum | Std. Dev. | Variance | Binder | Average | Maximum | Minimum | Std. Dev. | Variance |
| Polybilt | 0.17 | 0.21 | 0.10 | 0.040 | 0.00163 | Polybilt | 0.18 | 0.30 | 0.12 | 0.050 | 0.00246 |
| Kraton | 0.18 | 0.21 | 0.12 | 0.027 | 0.00074 | Kraton | 0.17 | 0.21 | 0.13 | 0.027 | 0.00074 |
| Exxon | 0.52 | 0.68 | 0.25 | 0.138 | 0.01910 | Exxon | 0.53 | 0.63 | 0.30 | 0.117 | 0.01369 |

Table 47.1: Fifth Annual Statistics of the Transverse Cracks
West and East Bound Lanes
Total

| | Westbound Lane | | Eastbound Lane | | Total | |
|---|---|---|---|---|---|---|
| Severity Level | Number of Cracks | Percentage | Number of Cracks | Percentage | Number of Cracks | Percentage |
| Low | 184 | 58.8 | 196 | 72.6 | 380 | 65.2 |
| Medium | 64 | 20.4 | 12 | 4.4 | 76 | 13.0 |
| High | 21 | 6.7 | 1 | 0.4 | 22 | 3.8 |
| Crack Sealed | 42 | 13.4 | 60 | 22.2 | 102 | 17.5 |
| Not Recorded | 2 | 0.6 | 1 | 0.4 | 3 | 0.5 |
| Total | 313 | | 270 | | 583 | |

| | Total | |
|---|---|---|
| Length of Cracks | Number of Cracks | Percentage |
| Full Width | 317 | 54.4 |
| Shoulder | 73 | 12.5 |
| 1/2 Sh | 1 | 0.2 |
| Sh + DL | 10 | 1.7 |
| Sh +1/2DL | 21 | 3.6 |
| Sh + 1/4DL | 25 | 4.3 |
| Sh + 1/8DL | 29 | 5.0 |
| PL + DL | 2 | 0.3 |
| PL | 6 | 1.0 |
| PL + 1/2 DL | 2 | 0.3 |
| PL + 3/4 DL | 1 | 0.2 |
| 3/4 DL | 1 | 0.2 |
| 1/2 DL | 4 | 0.7 |
| 1/4 DL | 4 | 0.7 |
| 1/8 DL | 1 | 0.2 |
| Sh + 3/4 DL | 1 | 0.2 |
| Sh + 1/10 DL | 1 | 0.2 |
| Longitudinal | 42 | 7.2 |
| Edge | 42 | 7.2 |

Table 47.2: Fifth Annual Statistics of the Transverse Cracks
West and East Bound Lanes
Control Section

| | Westbound Lane | | Eastbound Lane | | Total | |
|---|---|---|---|---|---|---|
| Severity Level | Number of Cracks | Percentage | Number of Cracks | Percentage | Number of Cracks | Percentage |
| Low | 98 | 81.7 | 77 | 93.9 | 175 | 86.6 |
| Medium | 20 | 16.7 | 4 | 4.9 | 24 | 11.9 |
| High | 2 | 1.7 | 1 | 1.2 | 3 | 1.5 |
| Crack Sealed | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Not Recorded | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 120 | | 82 | | 202 | |

| | Total in Control Section | |
|---|---|---|
| Length of Cracks | Number of Cracks | Percentage |
| Full Width | 99 | 17.0 |
| Shoulder | 37 | 6.3 |
| Sh+DL | 8 | 1.4 |
| Sh +1/2DL | 10 | 1.7 |
| Sh + 1/4DL | 14 | 2.4 |
| Sh + 1/8DL | 15 | 2.6 |
| PL + DL | 1 | 0.2 |
| PL | 3 | 0.5 |
| PL + 3/4DL | 1 | 0.2 |
| 1/2 DL | 3 | 0.5 |
| 1/2Sh | 1 | 0.2 |
| Longitudinal | 2 | 0.3 |
| Edge | 8 | 1.4 |

Table 47.3: Fifth Annual Statistics of the Transverse Cracks
West and East Bound Lanes
Polybilt Modified

| | Westbound Lane | | Eastbound Lane | | Total | |
|---|---|---|---|---|---|---|
| Severity Level | Number of Cracks | Percentage | Number of Cracks | Percentage | Number of Cracks | Percentage |
| Low | 61 | 52.6 | 38 | 35.5 | 99 | 44.4 |
| Medium | 34 | 29.3 | 8 | 7.5 | 42 | 18.8 |
| High | 19 | 16.4 | 0 | 0.0 | 19 | 8.5 |
| Crack Sealed | 0 | 0.0 | 60 | 56.1 | 60 | 26.9 |
| Not Recorded | 2 | 1.7 | 1 | 0.9 | 3 | 1.3 |
| Total | 116 | | 107 | | 223 | |

| | Total in Polybilt Section | |
|---|---|---|
| Length of Cracks | Number of Cracks | Percentage |
| Full Width | 109 | 48.9 |
| Shoulder | 15 | 6.7 |
| Sh+DL | 1 | 0.4 |
| Sh +1/2DL | 6 | 2.7 |
| Sh + 1/4DL | 7 | 3.1 |
| Sh + 1/8DL | 9 | 4.0 |
| PL + DL | 1 | 0.4 |
| PL | 1 | 0.4 |
| PL + 1/2 DL | 2 | 0.9 |
| 1/4 DL | 4 | 1.8 |
| 3/4 DL | 1 | 0.4 |
| 1/2 DL | 1 | 0.4 |
| 1/8 DL | 1 | 0.4 |
| Sh+3/4 DL | 1 | 0.4 |
| Sh+1/10 DL | 1 | 0.4 |
| Longitudinal | 30 | 13.5 |
| Edge | 33 | 14.8 |

Table 47.4: Fifth Annual Statistics of the Transverse Cracks
West and East Bound Lanes
Kraton Modified

| | Westbound Lanes | | Eastbound Lanes | | Total | |
|---|---|---|---|---|---|---|
| Severity Level | Number of Cracks | Percentage | Number of Cracks | Percentage | Number of Cracks | Percentage |
| Low | 25 | 32.5 | 81 | 100.0 | 106 | 67.1 |
| Medium | 10 | 13.0 | 0 | 0.0 | 10 | 6.3 |
| High | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Crack Sealed | 42 | 54.5 | 0 | 0.0 | 42 | 26.6 |
| Not Recorded | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 77 | | 81 | | 158 | |

| | Total in Kraton Section | |
|---|---|---|
| Length of Cracks | Number of Cracks | Percentage |
| Full Width | 109 | 69.0 |
| Shoulder | 21 | 13.3 |
| Sh+DL | 1 | 0.6 |
| Sh +1/2DL | 5 | 3.2 |
| Sh + 1/4DL | 4 | 2.5 |
| Sh + 1/8DL | 5 | 3.2 |
| PL | 2 | 1.3 |
| Longitudinal | 10 | 6.3 |
| Edge | 1 | 0.6 |

Table 47.5: Fifth Annual Crack Statistics per Station
Westbound and Eastbound Lanes
Total

| | Westbound Lane | | Eastbound Lane | | Total | |
|---|---|---|---|---|---|---|
| Severity Level | Number of Cracks | Cracks per Station | Number of Cracks | Cracks per Station | Number of Cracks | Cracks per Station |
| Low | 184 | 7.1 | 196 | 7.5 | 380 | 7.3 |
| Medium | 64 | 2.5 | 12 | 0.5 | 76 | 1.5 |
| High | 21 | 0.8 | 1 | 0.0 | 22 | 0.4 |
| Crack Sealed | 42 | 1.6 | 60 | 2.3 | 102 | 2.0 |
| Not Recorded | 2 | 0.1 | 1 | 0.0 | 3 | 0.1 |
| Total | 313 | 12.0 | 270 | 10.4 | 583 | 11.2 |

West and East Bound Lanes
Control Section

| | Westbound Lane | | Eastbound Lane | | Total | |
|---|---|---|---|---|---|---|
| Severity Level | Number of Cracks | Cracks per Station | Number of Cracks | Cracks per Station | Number of Cracks | Cracks per Station |
| Low | 98 | 14.0 | 77 | 11.0 | 175 | 12.5 |
| Medium | 20 | 2.9 | 4 | 0.6 | 24 | 1.7 |
| High | 2 | 0.3 | 1 | 0.1 | 3 | 0.2 |
| Crack Sealed | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Not Recorded | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 120 | 17.1 | 82 | 11.7 | 202 | 14.4 |

West and East Bound Lanes
Polybilt Modified

| | Westbound Lane | | Eastbound Lane | | Total | |
|---|---|---|---|---|---|---|
| Severity Level | Number of Cracks | Cracks per Station | Number of Cracks | Cracks per Station | Number of Cracks | Cracks per Station |
| Low | 61 | 6.1 | 38 | 4.2 | 99 | 5.2 |
| Medium | 34 | 3.4 | 8 | 0.9 | 42 | 2.2 |
| High | 19 | 1.9 | 0 | 0.0 | 19 | 1.0 |
| Crack Sealed | 0 | 0.0 | 60 | 6.7 | 60 | 3.2 |
| Not Recorded | 2 | 0.2 | 1 | 0.1 | 3 | 0.2 |
| Total | 116 | 11.6 | 107 | 11.9 | 223 | 11.7 |

West and East Bound Lanes
Kraton Modified

| | Westbound Lanes | | Eastbound Lanes | | Total | |
|---|---|---|---|---|---|---|
| Severity Level | Number of Cracks | Cracks per Station | Number of Cracks | Cracks per Station | Number of Cracks | Cracks per Station |
| Low | 25 | 2.8 | 81 | 8.1 | 106 | 5.6 |
| Medium | 10 | 1.1 | 0 | 0.0 | 10 | 0.5 |
| High | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Crack Sealed | 42 | 4.7 | 0 | 0.0 | 42 | 2.2 |
| Not Recorded | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 77 | 8.6 | 81 | 8.1 | 158 | 8.3 |

Table 48.1: Fifth Annual Pavement Surface Condition
Cracking - Polybilt West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 1 | 2260+00 | | 21.6 | Moderate | Sh+DL | |
| 1 | 2260+00 | | 151.6 | High | Full Width | |
| 1 | 2260+00 | | 52.6 | High | Full Width | |
| 1 | 2260+00 | 26.3 | | Low | 1/2 DL+PL | |
| 1 | 2260+00 | 51.8 | | Moderate | Full Width | |
| 1 | 2260+00 | 2.5 | | High | Full Width | |
| 1 | 2260+00 | 122 | | Low | 1/4 DL | |
| 1 | 2260+00 | 135 | | Low | 1/2 DL | |
| 1 | 2260+00 | 93.2 | | Moderate | Full Width | |
| 1 | 2260+00 | 188 | | High | Full Width | |
| 1 | 2260+00 | 52 | | Moderate | 0-52 FT. | Logitudinal |
| | | | | | | |
| 2 | 2254+00 | 9 | | Moderate | Full Width | |
| 2 | 2254+00 | 104.1 | | High | Full Width | |
| 2 | 2254+00 | 17 | | Low | 17-96 FT. | Edge |
| 2 | 2254+00 | 173 | | Moderate | Full Width | |
| 2 | 2254+00 | 185 | | Not Recorded | 185-200 FT. | Edge |
| 2 | 2254+00 | 0 | | Low | 0-200 FT. | Logitudinal |
| 2 | 2254+00 | | 29.7 | High | Full Width | |
| 2 | 2254+00 | | 88.6 | Low | Sh+1/2 DL | |
| 2 | 2254+00 | | 122.2 | Moderate | Full Width | |
| 2 | 2254+00 | | 144.4 | Low | Sh+1/8DL | |
| 2 | 2254+00 | | 182.9 | High | Full Width | |
| 2 | 2254+00 | | 38 | High | 38-62 FT. | Edge |
| 2 | 2254+00 | | 71 | Low | 1/8 DL | |
| 2 | 2254+00 | | 85 | Moderate | 85-107 FT. | Edge |
| 2 | 2254+00 | | 175 | Moderate | 175-200 FT. | Edge |
| | | | | | | |
| 3 | 2250+00 | 42.2 | | High | Full Width | |
| 3 | 2250+00 | 111.5 | | Moderate | Full Width | |
| 3 | 2250+00 | 153 | | Low | Shoulder | |
| 3 | 2250+00 | 182 | | High | Full Width | |
| 3 | 2250+00 | 0 | | Low | 0-200 FT. | Edge |
| 3 | 2250+00 | | 45 | Moderate | Full Width | |
| 3 | 2250+00 | | 115 | High | Full Width | |
| 3 | 2250+00 | | 115 | Low | 115-200 FT. | Edge |
| 3 | 2250+00 | | 180 | High | Full Width | |

Table 48.2: Fifth Annual Pavement Surface Condition
Cracking - Polybilt West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 4 | 2244+00 | 10.5 | | High | Full Width | |
| 4 | 2244+00 | 36.3 | | Low | Sh+1/2DL | |
| 4 | 2244+00 | 69 | | Low | Sh+1/2DL | |
| 4 | 2244+00 | 145.4 | | Moderate | Full Width | |
| 4 | 2244+00 | 98 | | Low | 98-121 FT. | Edge, Patch |
| 4 | 2244+00 | | 37.6 | Low | Sh+1/2DL | |
| 4 | 2244+00 | | 87.5 | Moderate | Full Width | |
| 4 | 2244+00 | | 165.9 | Moderate | Full Width | |
| 4 | 2244+00 | | 26 | Low | Shoulder | |
| 4 | 2244+00 | | 126 | Low | Shoulder | |
| 4 | 2244+00 | | 151 | Low | Shoulder | |
| 4 | 2244+00 | | 200 | Low | Sh+1/8DL | |
| | | | | | | |
| 5 | 2238+00 | 22.6 | | Moderate | Full Width | |
| 5 | 2238+00 | 78 | | High | Full Width | |
| 5 | 2238+00 | 106.9 | | Low | Full Width | |
| 5 | 2238+00 | 166 | | High | Full Width | |
| 5 | 2238+00 | 0 | | Low | 0-200 FT. | Longitudinal |
| 5 | 2238+00 | | 63.3 | High | Full Width | |
| 5 | 2238+00 | | 153.3 | High | Full Width | |
| 5 | 2238+00 | | 0 | Low | 0-200 FT. | Longitudinal |
| | | | | | | |
| 6 | 2232+00 | 15.7 | | Low | Full Width | |
| 6 | 2232+00 | 82.5 | | Low | Full Width | |
| 6 | 2232+00 | 135 | | Low | Full Width | |
| 6 | 2232+00 | 197.8 | | Low | Full Width | |
| 6 | 2232+00 | 0 | | Low | 0-134 FT. | Longitudinal |
| 6 | 2232+00 | 41 | | Low | 41-66 FT. | Edge |
| 6 | 2232+00 | 118 | | Low | 118-190 FT. | Edge |
| 6 | 2232+00 | | 40.7 | Low | Sh+1/2DL | |
| 6 | 2232+00 | | 69.3 | Low | Full Width | |
| 6 | 2232+00 | | 104.9 | Low | Sh+1/8DL | |
| 6 | 2232+00 | | 132.7 | Moderate | Full Width | |
| 6 | 2232+00 | | 161.2 | Low | Full Width | |
| 6 | 2232+00 | | 0 | Low | 0-133 FT. | Longitudinal |

Table 48.3: Fifth Annual Pavement Surface Condition
Cracking - Polybilt West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 7 | 2226+00 | 54.8 | | High | Full Width | |
| 7 | 2226+00 | 115.7 | | Low | Sh+1/8DL | |
| 7 | 2226+00 | 171.1 | | Moderate | Full Width | |
| 7 | 2226+00 | 0.5 | | Low | Full Width | |
| 7 | 2226+00 | 0 | | | | Longitudinal |
| 7 | 2226+00 | 174 | | Low | 174-194 FT. | Edge |
| 7 | 2226+00 | | 37 | Moderate | Full Width | |
| 7 | 2226+00 | | 73.4 | Low | Full Width | |
| 7 | 2226+00 | | 0 | Low | 0-200 FT. | Longitudinal |
| 7 | 2226+00 | | 50 | Low | 50-121 FT. | Edge |
| 7 | 2226+00 | | 129 | Low | 3/4DL | |
| 7 | 2226+00 | | 167 | Low | 167-200 FT. | Edge |
| | | | | | | |
| 8 | 2220+00 | 15.5 | | Moderate | Full Width | |
| 8 | 2220+00 | 71.9 | | Low | Full Width | |
| 8 | 2220+00 | 110.1 | | Low | Full Width | |
| 8 | 2220+00 | 33 | | Low | Shoulder | |
| 8 | 2220+00 | 184 | | Low | Full Width | |
| 8 | 2220+00 | | 105 | Moderate | Full Width | |
| 8 | 2220+00 | | 0 | Low | 0-200 FT. | Longitudinal |
| 8 | 2220+00 | | 188 | High | Full Width | |
| | | | | | | |
| 9 | 2214+00 | 42.3 | | Moderate | Full Width | |
| 9 | 2214+00 | 67.2 | | Low | 1/2DL+PL | |
| 9 | 2214+00 | 200.2 | | Moderate | Full Width | |
| 9 | 2214+00 | 105.7 | | Moderate | Full Width | |
| 9 | 2214+00 | 0 | | Low | 0-200 FT. | Longitudinal |
| 9 | 2214+00 | | 27.7 | Moderate | 1/4DL | |
| 9 | 2214+00 | | 78.4 | Moderate | Full Width | |
| 9 | 2214+00 | | 108.8 | Low | 1/4DL | |
| 9 | 2214+00 | | 152.3 | Moderate | Full Width | |
| 9 | 2214+00 | | 179.9 | Moderate | Full Width | |
| 9 | 2214+00 | | 0 | Low | 0-200 FT | Longitudinal |
| 9 | 2214+00 | | 109 | Low | 1/4DL | |
| 9 | 2214+00 | | 181 | Moderate | Full Length | |

Table 48.4: Fifth Annual Pavement Surface Condition
Cracking - Polybilt West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 10 | 2208+00 | 34.2 | | Moderate | Full Width | |
| 10 | 2208+00 | 138.2 | | Low | Full Width | |
| 10 | 2208+00 | 96.6 | | Moderate | Full Width | |
| 10 | 2208+00 | 9 | | Low | Shoulder | |
| 10 | 2208+00 | 9 | | Low | 9-200 FT. | Longitudinal |
| 10 | 2208+00 | 77 | | Low | Sh+1/8DL | |
| 10 | 2208+00 | 157 | | Low | Shoulder | |
| 10 | 2208+00 | 182 | | Low | Full Width | |
| 10 | 2208+00 | | 22.6 | Moderate | Full Width | |
| 10 | 2208+00 | | 119.2 | Moderate | Full Width | |
| 10 | 2208+00 | | 186.9 | Moderate | Full Width | |
| 10 | 2208+00 | | 153.2 | Low | Shoulder | |
| 10 | 2208+00 | | 80 | Moderate | 80-188 FT. | Longitudinal |
| 10 | 2208+00 | | 53 | Low | Shoulder | |
| 10 | 2208+00 | | 84 | Low | Full Width | |

Table 48.5: Fifth Annual Pavement Surface Condition
Cracking - Exxon West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 11 | 2200+00 | 17 | | Low | Sh+1/8DL | |
| 11 | 2200+00 | 52.2 | | Low | Full Width | CNWP* |
| 11 | 2200+00 | 98 | | Low | Full Width | CNWP |
| 11 | 2200+00 | 154.7 | | Moderate | Full Width | CNWP |
| 11 | 2200+00 | 186.6 | | Low | 1/2DL | |
| 11 | 2200+00 | | 5.2 | Low | Full Width | |
| 11 | 2200+00 | | 46.6 | Moderate | Full Width | CNWP |
| 11 | 2200+00 | | 147.9 | Low | Full Width | CNWP |
| 11 | 2200+00 | | 169.8 | Low | Full Width | CNWP |
| 11 | 2200+00 | | 0 | Low | 0-200 | Longitudinal |
| 11 | 2200+00 | | 62 | Low | 1/2 DL | |
| 11 | 2200+00 | | 74 | Low | Shoulder | |
| 11 | 2200+00 | | 126 | High | Full Width | CNWP |
| | | | | | | |
| 12 | 2196+00 | 19.5 | | Moderate | Full Width | CNWP |
| 12 | 2196+00 | 87.9 | | Moderate | Sh+1/8DL | |
| 12 | 2196+00 | 122 | | Moderate | Full Width | CNWP |
| 12 | 2196+00 | 192 | | Moderate | Sh+1/8DL | |
| 12 | 2196+00 | 76 | | Low | Passing Lane | |
| 12 | 2196+00 | 45 | | Low | Shoulder | |
| 12 | 2196+00 | | 90.9 | Moderate | Full Width | |
| 12 | 2196+00 | | 124 | Low | Shoulder | |
| 12 | 2196+00 | | 154.5 | Low | Full Width | CNWP |
| 12 | 2196+00 | | 5 | Low | Shoulder | |
| 12 | 2196+00 | | 32 | Low | Full Width | |
| 12 | 2196+00 | | 129 | Low | 129-142 FT. | Edge |
| | | | | | | |
| 13 | 2192+00 | 3.3 | | Low | Full Width | |
| 13 | 2192+00 | 67.2 | | Low | Shoulder | |
| 13 | 2192+00 | 86.5 | | Moderate | Full Width | |
| 13 | 2192+00 | 167.1 | | Low | Sh+DL | |
| 13 | 2192+00 | 185.9 | | Moderate | Full Width | |
| 13 | 2192+00 | 68 | | Low | Shoulder | |
| 13 | 2192+00 | | 33.7 | Low | Sh+1/8 DL | |
| 13 | 2192+00 | | 48.2 | Low | Full Width | |
| 13 | 2192+00 | | 65.5 | Low | Sh+1/8 DL | |
| 13 | 2192+00 | | 105 | Low | Sh+DL | |
| 13 | 2192+00 | | 134.3 | Low | Full Width | |
| 13 | 2192+00 | | 175.7 | Low | Shoulder | |
| 13 | 2192+00 | | 187.7 | Low | Full Width | |
| 13 | 2192+00 | | 157 | Low | Sh+1/8 DL | |
| 13 | 2192+00 | | 13 | Low | 1/2 Sh | |
| 13 | 2192+00 | | 93 | Low | Sh+1/8 DL | |
| 13 | 2192+00 | 29 | | Low | Full Width | |
| 13 | 2192+00 | 123 | | Low | Full Width | |
| 13 | 2192+00 | 168 | | Low | 168-193 FT. | Edge |

*CNWP - Cracks Not in Wheel Pathes Driving Lane

Table 48.6: Fifth Annual Pavement Surface Condition
Cracking - Exxon West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 14 | 2188+00 | 53.1 | | Low | Full Width | |
| 14 | 2188+00 | 116.5 | | Moderate | Full Width | |
| 14 | 2188+00 | 138.4 | | Low | Sh+1/4 DL | |
| 14 | 2188+00 | 158.5 | | Low | Full Width | |
| 14 | 2188+00 | 173 | | Low | Shoulder | |
| 14 | 2188+00 | 32 | | Low | Full Width | |
| 14 | 2188+00 | 88 | | Low | Sh+1/4 DL | |
| 14 | 2188+00 | 148 | | Moderate | Passing Lane | |
| 14 | 2188+00 | | 48.3 | Low | Full Width | |
| 14 | 2188+00 | | 85.7 | Low | Full Width | |
| 14 | 2188+00 | | 102.3 | Low | Full Width | |
| 14 | 2188+00 | | 141.4 | Low | Full Width | |
| 14 | 2188+00 | | 160.7 | Low | Sh+1/2 DL | |
| 14 | 2188+00 | | 178.3 | Low | Full Width | |
| 14 | 2188+00 | | 200 | Low | Shoulder | |
| 14 | 2188+00 | | 6 | Low | Full Width | |
| 14 | 2188+00 | | 19 | Low | Shoulder | |
| 14 | 2188+00 | | 34 | Low | Sh+1/8 DL | |
| 14 | 2188+00 | | 64 | Low | Sh+1/4 DL | |
| | | | | | | |
| 15 | 2184+00 | 27.7 | | Low | Sh+DL | |
| 15 | 2184+00 | 47.5 | | Low | Shoulder | |
| 15 | 2184+00 | 95.1 | | Low | Full Width | |
| 15 | 2184+00 | 148.2 | | Moderate | Full Width | |
| 15 | 2184+00 | 200 | | Moderate | Sh+DL | |
| 15 | 2184+00 | 188 | | Low | Shoulder | |
| 15 | 2184+00 | 166 | | Low | Sh+1/8 DL | |
| 15 | 2184+00 | 125 | | Low | Sh+1/8 DL | |
| 15 | 2184+00 | 113 | | Low | Shoulder | |
| 15 | 2184+00 | 98 | | Low | Passing Lane | |
| 15 | 2184+00 | 73 | | Low | Shoulder | |
| 15 | 2184+00 | 66 | | Low | PL+DL | |
| 15 | 2184+00 | 17 | | Moderate | Full Width | |
| 15 | 2184+00 | | 12.6 | Low | Full Width | |
| 15 | 2184+00 | | 135.2 | Low | Full Width | |
| 15 | 2184+00 | | 181.8 | Moderate | Full Width | |
| 15 | 2184+00 | | 148 | Low | Shoulder | |
| 15 | 2184+00 | | 112 | Low | Sh+1/2 DL | |
| 15 | 2184+00 | | 108 | Moderate | Full Width | |
| 15 | 2184+00 | | 88 | Low | Full Width | |
| 15 | 2184+00 | | 59 | Low | Full Width | |
| 15 | 2184+00 | | 35 | Low | Full Width | |

Table 48.7: Fifth Annual Pavement Surface Condition
Cracking - Exxon West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 16 | 2180+00 | 59.1 | | Low | Full Width | |
| 16 | 2180+00 | 89.4 | | Low | Full Width | |
| 16 | 2180+00 | 142.2 | | Low | Full Width | |
| 16 | 2180+00 | 196.3 | | Moderate | Full Width | |
| 16 | 2180+00 | 160 | | Low | Shoulder | |
| 16 | 2180+00 | 118 | | Low | Shoulder | |
| 16 | 2180+00 | 100 | | Low | 100-182 FT. | Edge |
| 16 | 2180+00 | 32 | | Low | 32-45 FT. | Edge |
| 16 | 2180+00 | 32 | | Low | Sh+1/4 DL | |
| 16 | 2180+00 | 20 | | Low | Sh+1/2 DL | |
| 16 | 2180+00 | 6 | | Low | Sh+1/2 DL | |
| 16 | 2180+00 | | 13.5 | Low | Full Width | |
| 16 | 2180+00 | | 77.9 | Low | Sh+DL | |
| 16 | 2180+00 | | 98.4 | Low | Sh+1/4 DL | |
| 16 | 2180+00 | | 93 | Low | Full Width | |
| 16 | 2180+00 | | 127 | Moderate | Full Width | |
| 16 | 2180+00 | | 154.5 | Low | Full Width | |
| 16 | 2180+00 | | 183 | Low | Sh+1/2 DL | |
| 16 | 2180+00 | | 61 | Low | Shoulder | |
| 16 | 2180+00 | | 42 | Low | Sh+1/8 DL | |
| | | | | | | |
| 17 | 2176+00 | 57.2 | | High | Full Width | |
| 17 | 2176+00 | 128 | | Low | Full Width | |
| 17 | 2176+00 | 182 | | Low | Shoulder | |
| 17 | 2176+00 | 92 | | Low | Shoulder | |
| 17 | 2176+00 | 73 | | Low | Shoulder | |
| 17 | 2176+00 | 27 | | Low | Sh+1/8 DL | |
| 17 | 2176+00 | | 20.5 | Moderate | Full Width | |
| 17 | 2176+00 | | 95.7 | Moderate | Full Width | |
| 17 | 2176+00 | | 167 | Low | Sh+DL | |
| 17 | 2176+00 | | 147 | Low | Sh+DL | |
| 17 | 2176+00 | | 136 | Low | Shoulder | |
| 17 | 2176+00 | | 125 | Low | Sh+1/8 DL | |
| 17 | 2176+00 | | 112 | Low | Shoulder | |
| 17 | 2176+00 | | 100 | Low | 100-200 FT. | Edge |
| 17 | 2176+00 | | 50 | Low | Shoulder | |

Table 48.8: Fifth Annual Pavement Surface Condition
Cracking - Kraton West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 18 | 2170+00 | 87 | | Moderate | Full Width | Visually |
| 18 | 2170+00 | 3.5 | | Moderate | Full Width | Looks |
| 18 | 2170+00 | 151 | | Moderate | Full Width | Good |
| 18 | 2170+00 | 200 | | Low | Shoulder | |
| 18 | 2170+00 | 191 | | Low | Shoulder | |
| 18 | 2170+00 | 178 | | Low | Shoulder | |
| 18 | 2170+00 | 112 | | Low | Shoulder | |
| 18 | 2170+00 | 71 | | Low | Shoulder | |
| 18 | 2170+00 | 61 | | Low | Sh+1/8 DL | |
| 18 | 2170+00 | 44 | | Low | Full Width | |
| 18 | 2170+00 | 20 | | Low | Shoulder | |
| 18 | 2170+00 | | 126 | Low | Full Width | |
| 18 | 2170+00 | | 172.6 | Moderate | Full Width | |
| 18 | 2170+00 | | 6 | Low | 6-200 FT. | Longitudinal |
| | | | | | | |
| 19 | 2164+00 | 52.7 | | Low | Sh+1/2 DL | |
| 19 | 2164+00 | 34.6 | | Moderate | Full Width | |
| 19 | 2164+00 | 108.4 | | Low | Full Width | |
| 19 | 2164+00 | 138.9 | | Low | Full Width | |
| 19 | 2164+00 | 161.2 | | Moderate | Full Width | |
| 19 | 2164+00 | | 7.6 | Moderate | Full Width | |
| 19 | 2164+00 | | 33 | Low | Shoulder | |
| 19 | 2164+00 | | 78.5 | Moderate | Full Width | |
| 19 | 2164+00 | | 120.7 | Low | Full Width | |
| | | | | | | |
| 20 | 2160+00 | 79.5 | | Low | Full Width | |
| 20 | 2160+00 | 157 | | Low | Full Width | |
| 20 | 2160+00 | 185 | | Low | Sh+1/2 DL | |
| 20 | 2160+00 | | 23.1 | Low | Full Width | |
| 20 | 2160+00 | | 101.5 | Moderate | Full Width | |
| 20 | 2160+00 | | 62.3 | Low | Full Width | |
| 20 | 2160+00 | | 134.2 | Low | Full Width | |
| 20 | 2160+00 | | 177.2 | Low | Full Width | |
| | | | | | | |
| 21 | 2154+00 | 61 | | Crack Sealed | Full Width | |
| 21 | 2154+00 | 180.2 | | Crack Sealed | Full Width | |
| 21 | 2154+00 | 0 | | Crack Sealed | 0-200 FT. | Longitudinal |
| 21 | 2154+00 | | 16.6 | Moderate | Full Width | |
| 21 | 2154+00 | | 162 | Low | Shoulder | |
| 21 | 2154+00 | | 0 | Crack Sealed | 0-200 FT. | Longitudinal |

Table 48.9: Fifth Annual Pavement Surface Condition
Cracking - Kraton West Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 22 | 2150+00 | 74.6 | | Crack Sealed | Full Width | |
| 22 | 2150+00 | 137.5 | | Crack Sealed | Full Width | |
| 22 | 2150+00 | | 18 | Crack Sealed | Full Width | |
| 22 | 2150+00 | | 104.2 | Crack Sealed | Full Width | |
| 22 | 2150+00 | | 203 | Crack Sealed | Full Width | |
| 22 | 2150+00 | | 105 | Crack Sealed | 105-200 FT. | Longitudinal |
| | | | | | | |
| 23 | 2144+00 | 23.5 | | Crack Sealed | Full Width | |
| 23 | 2144+00 | 124.1 | | Crack Sealed | Full Width | |
| 23 | 2144+00 | | 99.8 | Crack Sealed | Full Width | |
| 23 | 2144+00 | | 0 | Crack Sealed | 0-200 FT. | Longitudinal |
| | | | | | | |
| 24 | 2138+00 | 4.7 | | Crack Sealed | Full Width | |
| 24 | 2138+00 | 49.5 | | Crack Sealed | Full Width | |
| 24 | 2138+00 | 100.2 | | Crack Sealed | Full Width | |
| 24 | 2138+00 | 142.3 | | Crack Sealed | Full Width | |
| 24 | 2138+00 | 200.7 | | Crack Sealed | Shoulder | |
| 24 | 2138+00 | 100 | | Low | 100-108 FT. | Edge |
| 24 | 2138+00 | 0 | | Crack Sealed | 0-200 FT. | Longitudinal |
| 24 | 2138+00 | | 30.5 | Crack Sealed | Full Width | |
| 24 | 2138+00 | | 140.3 | Crack Sealed | Full Width | |
| 24 | 2138+00 | | 199 | Low | Shoulder | |
| 24 | 2138+00 | | 0 | Crack Sealed | 0-200 FT. | Longitudinal |
| | | | | | | |
| 25 | 2134+00 | 61.4 | | Crack Sealed | Full Width | |
| 25 | 2134+00 | 100.5 | | Crack Sealed | Full Width | |
| 25 | 2134+00 | 115 | | Crack Sealed | Full Width | |
| 25 | 2134+00 | 9 | | Crack Sealed | Full Width | |
| 25 | 2134+00 | 0 | | Crack Sealed | 0-200 FT. | Longitudinal |
| 25 | 2134+00 | | 79.7 | Crack Sealed | Full Width | |
| 25 | 2134+00 | | 173.2 | Crack Sealed | Full Width | |
| 25 | 2134+00 | | 55 | Crack Sealed | Full Width | |
| 25 | 2134+00 | | 64 | Crack Sealed | 64-80 FT. | |
| 25 | 2134+00 | | 197 | Crack Sealed | Full Width | |
| 25 | 2134+00 | | 0 | Crack Sealed | 0-200 FT. | Longitudinal |
| | | | | | | |
| 26 | 2130+00 | 37.3 | | Crack Sealed | Full Width | |
| 26 | 2130+00 | 50 | | Crack Sealed | Sh+1/2DL | |
| 26 | 2130+00 | | 18.3 | Crack Sealed | Full Width | |
| 26 | 2130+00 | | 47.5 | Crack Sealed | Full Width | |
| 26 | 2130+00 | | 157 | Crack Sealed | Shoulder | |
| 26 | 2130+00 | | 176 | Crack Sealed | Full Width | |
| 26 | 2130+00 | | 0 | Crack Sealed | 0-200 FT. | Off and On |

Table 48.10 Fifth Annual Pavement Surface Condition
Cracking - Polybilt East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 27 | 2130+00 | | 38.2 | Crack Sealed | Shoulder | |
| 27 | 2130+00 | | 154.2 | Crack Sealed | Full Width | |
| 27 | 2130+00 | | 44 | Crack Sealed | Full Width | |
| 27 | 2130+00 | | 62 | Crack Sealed | Shoulder | |
| 27 | 2130+00 | 30.5 | | Crack Sealed | Full Width | |
| 27 | 2130+00 | 127.2 | | Crack Sealed | Full Width | |
| 27 | 2130+00 | 98 | | Low | 98-112 FT. | Edge |
| 27 | 2130+00 | 145 | | Crack Sealed | 145-163FT. | Edge |
| | | | | | | |
| 28 | 2134+00 | | 13.4 | Crack Sealed | Shoulder | |
| 28 | 2134+00 | | 15 | Low | 15-57 FT. | Edge |
| 28 | 2134+00 | | 39 | Crack Sealed | Shoulder | |
| 28 | 2134+00 | | 110.5 | Crack Sealed | Full Width | |
| 28 | 2134+00 | | 142.6 | Crack Sealed | Sh+1/8 DL | |
| 28 | 2134+00 | | 33 | Crack Sealed | Full Width | |
| 28 | 2134+00 | 97.7 | | Crack Sealed | Full Width | |
| 28 | 2134+00 | 193.9 | | Crack Sealed | DL+PL | |
| 28 | 2134+00 | 196 | | | 196-200 FT. | Edge |
| | | | | | | |
| 29 | 2138+00 | | 6 | Crack Sealed | Full Width | |
| 29 | 2138+00 | | 96.1 | Crack Sealed | Full Width | |
| 29 | 2138+00 | | 191 | Crack Sealed | Full Width | |
| 29 | 2138+00 | | 200 | Crack Sealed | 200-204 FT. | |
| 29 | 2138+00 | 35.7 | | Crack Sealed | Sh+1/4 DL | |
| 29 | 2138+00 | 181.2 | | Crack Sealed | Full Width | |
| | | | | | | |
| 30 | 2144+00 | | 49.3 | Crack Sealed | Full Width | |
| 30 | 2144+00 | | 140 | Crack Sealed | Full Width | |
| 30 | 2144+00 | | -1 | Crack Sealed | -1-17 FT. | Edge |
| 30 | 2144+00 | | 85 | Crack Sealed | Full Width | Ln, PL betwen WP |
| 30 | 2144+00 | | 199 | Crack Sealed | Sh+1/2 DL | |
| 30 | 2144+00 | 40.7 | | Crack Sealed | Full Width | |
| 30 | 2144+00 | 145.8 | | Crack Sealed | Full Width | |
| 30 | 2144+00 | 192.3 | | Crack Sealed | Shoulder | |
| 30 | 2144+00 | 107 | | Crack Sealed | 107-117 FT. | Edge |
| 30 | 2144+00 | 122 | | Crack Sealed | 122-137 FT. | Edge |
| 30 | 2144+00 | 161 | | Crack Sealed | 161-176 FT. | Edge |
| 30 | 2144+00 | 199 | | Crack Sealed | 199-207 FT. | DL between WP |

Table 48.11: Fifth Annual Pavement Surface Condition
Cracking - Polybilt East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 31 | 2150+00 | | 24.5 | Sealed Crack | Full Width | |
| 31 | 2150+00 | | 11 | Sealed Crack | 11-184 | Edge |
| 31 | 2150+00 | | 82 | Sealed Crack | Full Width | |
| 31 | 2150+00 | | 123.2 | Sealed Crack | Full Width | |
| 31 | 2150+00 | | 101 | Sealed Crack | 101-138 | Ln in PL Between WP |
| 31 | 2150+00 | 16 | | Sealed Crack | Full Width | |
| 31 | 2150+00 | 44.3 | | Sealed Crack | Sh+1/4 DL | |
| 31 | 2150+00 | 97.2 | | Sealed Crack | Sh+1/4 DL | |
| 31 | 2150+00 | 119.8 | | Sealed Crack | Full Width | |
| 31 | 2150+00 | 144 | | Sealed Crack | Sh+1/8 DL | |
| 31 | 2150+00 | 178.2 | | Sealed Crack | Full Width | |
| 31 | 2150+00 | 4 | | Sealed Crack | 4-16 | Edge |
| 31 | 2150+00 | 22 | | Sealed Crack | 22-40 | Edge |
| 31 | 2150+00 | 144 | | Sealed Crack | 114-158 | Edge |
| | | | | | | |
| 32 | 2154+00 | 84.3 | | Sealed Crack | Sh+1/4 DL | |
| 32 | 2154+00 | 120 | | Sealed Crack | Full Width | |
| 32 | 2154+00 | 8 | | Low | 8-9 | Edge |
| 32 | 2154+00 | 55 | | Low | Shoulder | |
| 32 | 2154+00 | 198 | | Sealed Crack | Full Width | |
| 32 | 2154+00 | 200 | | Sealed Crack | 200-206 | Edge |
| 32 | 2154+00 | 85 | | Low | 85-114 | Ln Between WP in PL |
| 32 | 2154+00 | | 25.6 | Sealed Crack | Full Width | |
| 32 | 2154+00 | | 108.3 | Sealed Crack | Sh+1/4 DL | |
| 32 | 2154+00 | | 123.5 | Sealed Crack | Full Width | |
| 32 | 2154+00 | | 179.2 | Sealed Crack | Full Width | |
| 32 | 2154+00 | | 26 | Sealed Crack | 26-40 | Edge |
| 32 | 2154+00 | | 70 | Sealed Crack | Sh+3/4 DL | |
| 32 | 2154+00 | | 119 | Sealed Crack | 119-170 | Ln Between WP in PL |
| | | | | | | |
| 33 | 2160+00 | 45.3 | | Low | Full Width | PL sealed |
| 33 | 2160+00 | 82.3 | | Low | Full Width | |
| 33 | 2160+00 | 147 | | Low | Full Width | |
| 33 | 2160+00 | 34 | | Low | 34-59 | Edge |
| 33 | 2160+00 | 38 | | Sealed Crack | 38-59 | Longitudinal |
| 33 | 2160+00 | 102 | | Low | 102-146 | Longitudinal |
| 33 | 2160+00 | | 26.7 | Low | Full Width | PL sealed |
| 33 | 2160+00 | | 68.2 | Moderate | Full Width | PL sealed |
| 33 | 2160+00 | | 142.8 | Sealed Crack | Full Width | |
| 33 | 2160+00 | | 155 | Sealed Crack | 155-218 | Longuitudinal |
| 33 | 2160+00 | | 143 | Low | 143-150 | Edge |

Table 48.12: Fifth Annual Pavement Surface Condition
Cracking - Polybilt East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 34 | 2164+00 | 44 | | Low | Full Width | |
| 34 | 2164+00 | 118.2 | | Moderate | Full Width | |
| 34 | 2164+00 | 194.8 | | Low | Full Width | |
| 34 | 2164+00 | 12 | | Low | 12-36 | Longitudinal |
| 34 | 2164+00 | 44 | | Low | 44-117 | Longitudinal |
| 34 | 2164+00 | 61 | | Low | Sh+1/8 DL | |
| 34 | 2164+00 | 157 | | Low | Sh+1/4 DL | |
| 34 | 2164+00 | | 0.4 | Low | Full Width | |
| 34 | 2164+00 | | 47.6 | Low | Full Width | |
| 34 | 2164+00 | | 90.4 | Moderate | Full Width | |
| 34 | 2164+00 | | 118.5 | Low | Full Width | |
| 34 | 2164+00 | | 146.1 | Low | Sh+1/8 DL | |
| 34 | 2164+00 | | 182.8 | Low | Full Width | |
| 34 | 2164+00 | | 0 | Low | 0-68 | Longitudinal |
| 34 | 2164+00 | | 44 | Low | 44-46 | Edge |
| 34 | 2164+00 | | 51 | Low | 51-55 | Edge |
| 34 | 2164+00 | | 119 | Low | 119-161 | Longitudinal |
| 34 | 2164+00 | | 161 | Low | 161-184 | Longitudinal |
| 34 | 2164+00 | | 74 | Low | Sh+1/10 DL | |
| | | | | | | |
| 35 | 2170+00 | 69.7 | | Moderate | Full Width | |
| 35 | 2170+00 | 156.5 | | Low | Full Width | |
| 35 | 2170+00 | 69 | | Moderate | Full Width | |
| 35 | 2170+00 | 156 | | Moderate | Full Width | |
| 35 | 2170+00 | 171 | | Low | 171-186 | Longitudinal |
| 35 | 2170+00 | 0 | | Low | 0-11 | Edge |
| 35 | 2170+00 | | 60.8 | Moderate | Full Width | |
| 35 | 2170+00 | | 113.8 | Moderate | Full Width | |
| 35 | 2170+00 | | 189 | Low | Full Width | |
| 35 | 2170+00 | | 113.8 | Low | Sh+1/4 DL | |
| 35 | 2170+00 | | 0 | Low | 0-29 | Edge |
| 35 | 2170+00 | | 80 | Low | 80-85 | Longitudinal |
| 35 | 2170+00 | | 100 | Low | 100-124 | Longitudinal |
| 35 | 2170+00 | | 137 | Low | 137-160 | Longitudinal |

Table 48.13: Fifth Annual Pavement Surface Condition
Cracking - Exxon East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 36 | 2176+00 | | 98 | Low | Sh+1/8 DL | |
| 36 | 2176+00 | | 162.8 | Low | Full Width | WP closed |
| 36 | 2176+00 | 73.6 | | Low | Sh+1/2 DL | WP closed |
| 36 | 2176+00 | 196.9 | | High | Full Width | |
| 36 | 2176+00 | 101.4 | | Low | Full Width | WP closed |
| 36 | 2176+00 | 38 | | Low | Full Width | |
| 36 | 2176+00 | 153 | | Low | Shoulder | |
| 36 | 2176+00 | 160 | | Low | 160-170 | Ln DL WP |
| | | | | | | |
| 37 | 2180+00 | 25.8 | | Low | Full Width | Bleed |
| 37 | 2180+00 | 50.8 | | Low | Full Width | and |
| 37 | 2180+00 | 72.7 | | Low | Sh+1/4 DL | Rut |
| 37 | 2180+00 | 86.8 | | Low | Full Width | |
| 37 | 2180+00 | 125.7 | | Low | Full Width | |
| 37 | 2180+00 | 157 | | Moderate | Full Width | |
| 37 | 2180+00 | 186 | | Low | Shoulder | |
| 37 | 2180+00 | | 8.7 | Low | Full Width | |
| 37 | 2180+00 | | 47.7 | Low | Full Width | |
| 37 | 2180+00 | | 122.8 | Low | Sh+1/2DL | |
| 37 | 2180+00 | | 155.8 | Low | Full Width | |
| | | | | | | |
| 38 | 2184+00 | 78.8 | | Low | Full Width | |
| 38 | 2184+00 | 161.6 | | Moderate | Full Width | |
| 38 | 2184+00 | 186.3 | | Low | Sh+1/4 DL | |
| 38 | 2184+00 | 32 | | Low | Full Width | |
| 38 | 2184+00 | 123 | | Low | Full Width | |
| 38 | 2184+00 | | 38 | Low | Full Width | |
| 38 | 2184+00 | | 32.8 | Low | Shoulder | |
| 38 | 2184+00 | | 70.7 | Low | Full Width | |
| 38 | 2184+00 | | 93.8 | Low | Shoulder | |
| 38 | 2184+00 | | 134.6 | Low | Full Width | |
| 38 | 2184+00 | | 187.3 | Low | Full Width | |
| 38 | 2184+00 | | 101 | Low | Full Width | |
| 38 | 2184+00 | | 163 | Low | Shoulder | |

Table 48.14: Fifth Annual Pavement Surface Condition
Cracking - Exxon East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 39 | 2188+00 | | 100.7 | Low | Full Width | |
| 39 | 2188+00 | | 134.8 | Low | Full Width | |
| 39 | 2188+00 | | 9 | Low | Shoulder | |
| 39 | 2188+00 | | 22 | Low | Shoulder | |
| 39 | 2188+00 | | 31 | Low | Sh+1/4 DL | |
| 39 | 2188+00 | | 78 | Low | Sh+1/4 DL | |
| 39 | 2188+00 | | 156 | Low | Shoulder | |
| 39 | 2188+00 | | 183 | Low | Sh+1/2 DL | |
| 39 | 2188+00 | 23 | | Low | Full Width | |
| 39 | 2188+00 | 55.7 | | Low | Full Width | |
| 39 | 2188+00 | 121.7 | | Low | Full Width | |
| 39 | 2188+00 | 145.9 | | Low | Full Width | |
| 39 | 2188+00 | 177.6 | | Low | Sh+1/2DL | |
| 39 | 2188+00 | 132 | | Low | 132-154 | Edge |
| | | | | | | |
| 40 | 2192+00 | 42.1 | | Low | Full Width | |
| 40 | 2192+00 | 62.3 | | Low | Full Width | |
| 40 | 2192+00 | 84.2 | | Low | Full Width | |
| 40 | 2192+00 | 146.7 | | Low | Full Width | |
| 40 | 2192+00 | 173 | | Low | Shoulder | |
| 40 | 2192+00 | 102 | | Low | Full Width | |
| 40 | 2192+00 | 160 | | Low | 160-182 | Edge |
| 40 | 2192+00 | 186 | | Low | Shoulder | |
| 40 | 2192+00 | 4 | | Low | 1/2 DL | |
| 40 | 2192+00 | 120 | | Low | Sh+1/8 DL | |
| 40 | 2192+00 | | 2.5 | Low | Sh+DL | |
| 40 | 2192+00 | | 101.6 | Low | Full Width | |
| 40 | 2192+00 | | 144.8 | Low | Full Width | |
| 40 | 2192+00 | | 181 | Low | Full Width | |

Table 48.15: Fifth Annual Pavement Surface Condition
Cracking - Exxon East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 41 | 2196+00 | 9.3 | | Low | Full Width | |
| 41 | 2196+00 | 50.5 | | Moderate | Full Width | |
| 41 | 2196+00 | 144.2 | | Moderate | Full Width | |
| 41 | 2196+00 | 92 | | Low | Sh+1/4 DL | |
| 41 | 2196+00 | 108 | | Low | Sh+1/4 DL | |
| 41 | 2196+00 | 164 | | Low | Shoulder | |
| 41 | 2196+00 | | 49.5 | Low | Full Width | |
| 41 | 2196+00 | | 102.6 | Low | Full Width | |
| 41 | 2196+00 | | 144 | Low | Sh+1/4 DL | |
| 41 | 2196+00 | | 197.8 | Low | Sh+1/4 DL | |
| 41 | 2196+00 | | 190 | Low | PL+3/4DL | |
| 41 | 2196+00 | | 133 | Low | Full Width | |
| 41 | 2196+00 | | 172 | Low | Sh+1/4 DL | |
| | | | | | | |
| 42 | 2200+00 | 34 | | Low | Full Width | |
| 42 | 2200+00 | 112 | | Low | Full Width | |
| 42 | 2200+00 | 147.6 | | Low | Full Width | |
| 42 | 2200+00 | 172.4 | | Low | Sh+1/2DL | |
| 42 | 2200+00 | 36 | | Low | 36-50 | Edge |
| 42 | 2200+00 | 89 | | Low | Shoulder | |
| 42 | 2200+00 | | 34.5 | Low | Full Width | |
| 42 | 2200+00 | | 155.8 | Low | Full Width | |
| 42 | 2200+00 | | 197 | Low | Shoulder | |

Table 48.16: Fifth Annual Pavement Surface Condition
Cracking - Kraton East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 43 | 2208+00 | 38.6 | | Low | Full Width | |
| 43 | 2208+00 | 89.4 | | Low | Full Width | |
| 43 | 2208+00 | 131.5 | | Low | Full Width | |
| 43 | 2208+00 | | 16.4 | Low | Sh+1/2 DL | |
| 43 | 2208+00 | | 48.8 | Low | Full Width | |
| 43 | 2208+00 | | 101.7 | Low | Full Width | |
| 43 | 2208+00 | | 183.8 | Low | Full Width | |
| 43 | 2208+00 | | 80 | Low | Shoulder | |
| | | | | | | |
| 44 | 2214+00 | 97.1 | | Low | Full Width | |
| 44 | 2214+00 | 126.6 | | Low | Sh+1/4 DL | |
| 44 | 2214+00 | 176.5 | | Low | Full Width | |
| 44 | 2214+00 | | 87.3 | Low | Sh+1/8DL | |
| 44 | 2214+00 | | 115.4 | Low | Full Width | |
| 44 | 2214+00 | | 165.9 | Low | Full Width | |
| 44 | 2214+00 | | 1.3 | Low | Full Width | |
| 44 | 2214+00 | | 43 | Low | Full Width | |
| | | | | | | |
| 45 | 2220+00 | 39.4 | | Low | Full Width | |
| 45 | 2220+00 | 114.1 | | Low | Full Width | |
| 45 | 2220+00 | 195.3 | | Low | Full Width | |
| 45 | 2220+00 | 159.6 | | Low | Full Width | |
| 45 | 2220+00 | 8 | | Low | Sh+1/4 DL | |
| 45 | 2220+00 | | 63.8 | Low | Full Width | |
| 45 | 2220+00 | | 115.6 | Low | Full Width | |
| 45 | 2220+00 | | 197 | Low | Full Width | |
| 45 | 2220+00 | | 23 | Low | Shoulder | |
| | | | | | | |
| 46 | 2226+00 | 104.7 | | Low | Full Width | |
| 46 | 2226+00 | 133.9 | | Low | Sh+1/2 DL | |
| 46 | 2226+00 | 161 | | Low | Sh+1/4 DL | |
| 46 | 2226+00 | 198.4 | | Low | Full Width | |
| 46 | 2226+00 | | 22.1 | Low | Full Width | |
| 46 | 2226+00 | | 88.7 | Low | Full Width | |
| 46 | 2226+00 | | 146.1 | Low | Full Width | |
| 46 | 2226+00 | | 196.5 | Low | Full Width | |

Table 48.17: Fifth Annual Pavement Surface Condition
Cracking - Kraton East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 47 | 2232+00 | 19.9 | | Low | Sh+1/2 DL | |
| 47 | 2232+00 | 55.6 | | Low | Full Width | |
| 47 | 2232+00 | 91.2 | | Low | Sh+1/8 DL | |
| 47 | 2232+00 | | 5 | Low | Shoulder | |
| 47 | 2232+00 | | 9 | Low | Shoulder | |
| 47 | 2232+00 | | 50 | Low | Full Width | |
| 47 | 2232+00 | | 125.7 | Low | Full Width | |
| 47 | 2232+00 | | 162.6 | Low | Full Width | |
| 47 | 2232+00 | | 208 | Low | Full Width | |
| | | | | | | |
| 48 | 2238+00 | 3 | | Low | Full Width | |
| 48 | 2238+00 | 60.5 | | Low | Full Width | |
| 48 | 2238+00 | 88.6 | | Low | Full Width | |
| 48 | 2238+00 | 159.6 | | Low | Full Width | |
| 48 | 2238+00 | 181.3 | | Low | Full Width | |
| 48 | 2238+00 | | 57.6 | Low | Full Width | |
| 48 | 2238+00 | | 111.6 | Low | Full Width | |
| 48 | 2238+00 | | 163.1 | Low | Full Width | |
| 48 | 2238+00 | | 191.9 | Low | Full Width | |
| | | | | | | |
| 49 | 2244+00 | 49.3 | | Low | Full Width | |
| 49 | 2244+00 | 153.8 | | Low | Full Width | |
| 49 | 2244+00 | 181 | | Low | Shoulder | |
| 49 | 2244+00 | 124 | | Low | Sh+1/8 DL | |
| 49 | 2244+00 | | 74.6 | Low | Full Width | |
| 49 | 2244+00 | | 112.5 | Low | Full Width | |
| 49 | 2244+00 | | 153 | Low | Sh+1/4 DL | |
| | | | | | | |
| 50 | 2250+00 | 145.6 | | Low | Full Width | |
| 50 | 2250+00 | | 9.7 | Low | Full Width | |
| 50 | 2250+00 | | 128.6 | Low | Full Width | |
| 50 | 2250+00 | | 147.7 | Low | Sh+1/8 DL | |

Table 48.18: Fifth Annual Pavement Surface Condition
Cracking - Kraton East Bound

| MSU Station | Station | Distance from Station (ft) | | Crack Severity | Length of Crack | Remark |
|---|---|---|---|---|---|---|
| | | Ahead | Back | | | |
| 51 | 2254+00 | 91.5 | | Low | Full Width | |
| 51 | 2254+00 | 150.8 | | Low | Full Width | |
| 51 | 2254+00 | 192.4 | | Low | PL | |
| 51 | 2254+00 | 16 | | Low | Shoulder | |
| 51 | 2254+00 | 33 | | Low | Shoulder | |
| 51 | 2254+00 | 182 | | Low | Sh+DL | |
| 51 | 2254+00 | | 12.3 | Low | Full Width | |
| 51 | 2254+00 | | 160 | Low | PL | |
| 51 | 2254+00 | | 162 | Low | Full Width | |
| 51 | 2254+00 | | 196 | Low | Shoulder | |
| | | | | | | |
| 52 | 2260+00 | 16.2 | | Low | Full Width | |
| 52 | 2260+00 | 71.6 | | Low | Full Width | |
| 52 | 2260+00 | 110.4 | | Low | Full Width | |
| 52 | 2260+00 | 173.8 | | Low | Full Width | |
| 52 | 2260+00 | 198 | | Low | Shoulder | |
| 52 | 2260+00 | | 6.3 | Low | Shoulder | |
| 52 | 2260+00 | | 60.6 | Low | Full Width | |
| 52 | 2260+00 | | 104.6 | Low | Full Width | |
| 52 | 2260+00 | | 181.8 | Low | Full Width | |

TABLE 49.1:
FIFTH ANNUAL LEVELING DATA-WEST BOUND LANE

| MSU ST. | DRIVING LANE STEEL PIN | PROF. PT. | CENTER LN. | PASSING LANE PROF. PT. | STEEL PIN |
|---|---|---|---|---|---|
| 1 | 7.35 | 5.75 | 5.62 | 5.78 | 7.34 |
| | 7.35 | 5.72 | 5.62 | 5.82 | 7.34 |
| 2 | 6.88 | 5.19 | 5.06 | 5.23 | 6.83 |
| | 6.88 | 5.16 | 5.06 | 5.25 | 6.83 |
| 3 | 6.91 | 5.43 | 5.28 | 5.44 | 7.04 |
| | 6.91 | 5.38 | 5.28 | 5.45 | 7.04 |
| 4 | 8.75 | 7.16 | 6.97 | 7.16 | 8.69 |
| | 8.75 | 7.09 | 6.97 | 7.15 | 8.69 |
| 5 | 2.70 | 1.22 | 1.07 | 1.22 | 2.63 |
| | 2.70 | 1.18 | 1.07 | 1.24 | 2.63 |
| 6 | 4.62 | 3.09 | 2.93 | 3.09 | 4.73 |
| | 4.62 | 3.04 | 2.93 | 3.10 | 4.73 |
| 7 | 6.86 | 5.27 | 5.10 | 5.25 | 6.78 |
| | 6.86 | 5.24 | 5.10 | 5.27 | 6.78 |
| 8 | 6.10 | 4.45 | 4.32 | 4.49 | 6.03 |
| | 6.10 | 4.43 | 4.32 | 4.51 | 6.03 |
| 9 | 5.87 | 4.22 | 4.03 | 4.20 | 5.88 |
| | 5.87 | 4.20 | 4.03 | 4.24 | 5.88 |
| 10 | 6.65 | 4.68 | 4.47 | 4.65 | 6.23 |
| | 6.65 | 4.60 | 4.47 | 4.67 | 6.23 |
| 11 | 10.36 | 8.35 | 8.19 | 8.33 | 9.95 |
| | 10.36 | 8.31 | 8.19 | 8.34 | 9.95 |
| 12 | 3.77 | 1.80 | 1.65 | 1.80 | 3.47 |
| | 3.77 | 1.76 | 1.65 | 1.83 | 3.47 |
| 13 | GR | 8.22 | 8.11 | 8.28 | 9.87 |
| | GR | 8.19 | 8.11 | 8.29 | 9.87 |
| 14 | GR | 4.01 | 3.89 | 4.05 | 5.46 |
| | GR | 3.95 | 3.89 | 4.06 | 5.46 |
| 15 | GR | 6.51 | 6.41 | 6.54 | 8.15 |
| | GR | 6.46 | 6.41 | 6.55 | 8.15 |
| 16 | 2.45 | 1.18 | 1.05 | 1.18 | 2.84 |
| | 2.45 | 1.13 | 1.05 | 1.20 | 2.84 |
| 17 | 5.42 | 3.66 | 3.48 | 3.58 | 5.16 |
| | 5.42 | 3.61 | 3.48 | 3.58 | 5.16 |
| 18 | 9.13 | 7.80 | 7.64 | 7.72 | 9.19 |
| | 9.13 | 7.75 | 7.64 | 7.72 | 9.19 |
| 19 | 8.15 | 6.41 | 6.25 | 6.33 | 7.41 |
| | 8.15 | 6.36 | 6.25 | 6.34 | 7.41 |
| 20 | 6.23 | 4.78 | 4.61 | 4.78 | 5.91 |
| | 6.23 | 4.73 | 4.61 | 4.78 | 5.91 |
| 21 | 4.44 | 2.71 | 2.61 | 2.77 | 4.74 |
| | 4.44 | 2.68 | 2.61 | 2.80 | 4.74 |
| 22 | 6.03 | 4.68 | 4.54 | 4.72 | 6.71 |
| | 6.03 | 4.62 | 4.54 | 4.76 | 6.71 |
| 23 | GR | 3.45 | 3.35 | 3.46 | 4.98 |
| | GR | 3.42 | 3.35 | 3.53 | 4.98 |
| 24 | 12.46 | 10.87 | 10.79 | 10.95 | 12.85 |
| | 12.46 | 10.85 | 10.79 | 11.10 | 12.85 |
| 25 | 5.99 | 4.56 | 4.44 | 4.56 | 6.05 |
| | 5.99 | 4.53 | 4.44 | 4.60 | 6.05 |
| 26 | 5.61 | 4.02 | 3.91 | 4.08 | 5.66 |
| | 5.61 | 3.99 | 3.91 | 4.09 | 5.66 |

NOTE: under PROF. PT., first indicates peg of profilograph, second indicates wheel of profilograph for each station.
GR indicates guardrail.

TABLE 49.2:
FIFTH ANNUAL LEVELING DATA-EAST BOUND LANE

| MSU ST. | PASSING LANE STEEL PIN | PROF. PT. | CENTER LN. | DRIVING LANE PROF. PT. | STEEL PIN |
|---|---|---|---|---|---|
| 27 | 5.73 | 3.82 | 3.69 | 3.89 | 5.63 |
| | 5.73 | 3.80 | 3.69 | 3.90 | 5.63 |
| 28 | 6.26 | 4.38 | 4.26 | 4.50 | GR |
| | 6.26 | 4.38 | 4.26 | 4.58 | GR |
| 29 | 12.48 | 10.98 | 10.84 | 11.01 | GR |
| | 12.48 | 10.98 | 10.84 | 11.05 | GR |
| 30 | 5.37 | 3.55 | 3.38 | 3.57 | 5.14 |
| | 5.37 | 3.56 | 3.38 | 3.62 | 5.14 |
| 31 | 6.45 | 4.83 | 4.74 | 4.91 | 6.51 |
| | 6.45 | 4.85 | 4.74 | 4.96 | 6.51 |
| 32 | 4.85 | 3.07 | 2.94 | 3.12 | 4.37 |
| | 4.85 | 3.07 | 2.94 | 3.17 | 4.37 |
| 33 | 6.48 | 4.95 | 4.81 | 5.02 | 6.67 |
| | 6.48 | 4.94 | 4.81 | 5.05 | 6.67 |
| 34 | 7.77 | 6.40 | 6.28 | 6.47 | 8.08 |
| | 7.77 | 6.39 | 6.28 | 6.50 | 8.08 |
| 35 | 8.72 | 7.74 | 7.56 | 7.71 | 8.85 |
| | 8.72 | 7.68 | 7.56 | 7.73 | 8.85 |
| 36 | 5.33 | 3.66 | 3.52 | 3.66 | 5.56 |
| | 5.33 | 3.64 | 3.52 | 3.70 | 5.56 |
| 37 | 3.06 | 1.10 | 0.09 | 1.17 | 3.40 |
| | 3.06 | 1.08 | 0.10 | 1.18 | 3.40 |
| 38 | 8.30 | 6.32 | 6.15 | 6.33 | GR |
| | 8.30 | 6.30 | 6.15 | 6.36 | GR |
| 39 | 5.70 | 3.88 | 3.65 | 3.77 | GR |
| | 5.70 | 3.88 | 3.65 | 3.79 | GR |
| 40 | 10.10 | 8.13 | 7.91 | 8.10 | GR |
| | 10.10 | 8.11 | 7.91 | 8.12 | GR |
| 41 | 3.81 | 1.75 | 1.52 | 1.68 | GR |
| | 3.81 | 1.73 | 1.52 | 1.70 | GR |
| 42 | 10.34 | 8.39 | 8.19 | 8.35 | GR |
| | 10.34 | 8.38 | 8.19 | 8.38 | GR |
| 43 | 6.54 | 4.70 | 4.50 | 4.70 | 6.97 |
| | 6.54 | 4.69 | 4.50 | 4.73 | 6.97 |
| 44 | 5.99 | 4.10 | 3.89 | 4.08 | 5.99 |
| | 5.99 | 4.09 | 3.89 | 4.11 | 5.99 |
| 45 | 6.31 | 4.63 | 4.40 | 4.47 | 6.25 |
| | 6.31 | 4.62 | 4.40 | 4.51 | 6.25 |
| 46 | 6.84 | 5.17 | 4.94 | 5.11 | 6.80 |
| | 6.84 | 5.15 | 4.94 | 5.14 | 6.80 |
| 47 | 4.81 | 3.28 | 3.05 | 3.22 | 5.31 |
| | 4.81 | 3.26 | 3.05 | 3.22 | 5.31 |
| 48 | 2.85 | 1.33 | 1.10 | 1.20 | 2.55 |
| | 2.85 | 1.31 | 1.10 | 1.22 | 2.55 |
| 49 | 9.08 | 7.38 | 7.15 | 7.35 | 8.65 |
| | 9.08 | 7.37 | 7.15 | 7.37 | 8.65 |
| 50 | 7.26 | 5.63 | 5.40 | 5.53 | 7.18 |
| | 7.26 | 5.61 | 5.40 | 5.56 | 7.18 |
| 51 | 7.01 | 5.30 | 5.09 | 5.28 | 7.03 |
| | 7.01 | 5.28 | 5.09 | 5.30 | 7.03 |
| 52 | 7.39 | 5.52 | 5.39 | 5.64 | 7.95 |
| | 7.39 | 5.50 | 5.39 | 5.70 | 7.95 |

NOTE: under PROF. PT., first indicates peg of profilograph, second indicates wheel of profilograph for each station.
GR indicates guardrail.