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Fleet Manager, Dakota County, MN



MCEA ANNUAL CONFERENCE

January 18 - 21, 2022 | Cragun's - Brainerd



CERTIFIED PUBLIC FLEET PROFESSIONAL (CPFP)



1 – Operations

2 – General Management & Business

3 – Asset Management

4 – Financial Management

5 – Human Resource Management

6 – Risk Management

7 – Environmental Management

8 – Information Management & Technology Systems

CPFP Certification Publication Resources Bundle



The APWA recommends the following resources to help with preparation for the CPFP examination.

Product Code:	PB.A644
Publisher:	APWA
Media:	Nine Publications
Member Price	\$261.00
Nonmember Price	\$336.00



CERTIFIED AUTOMOTIVE FLEET MANAGER (CAFM)



1 – Asset Management
2 – Business Management
3 – Financial Management
4 – Information Management
5 – Maintenance Management
6 – Professional Management
7 – Risk Management
8 – Vehicle Fuel Management

Certified Automotive Fleet Manager (CAFM)

	NAFA Member	Nonmember
CAFM Enrollment	\$700	\$1,300
CAFM Enrollment Enhanced*	\$1,200	\$1,800



CERTIFIED EQUIPMENT MANAGER (CEM)



1 – Financial Management	11 – Human Resources
2 – Procurement & Acquisition	12 – Safety
3 – Risk Management	13 – Outsourcing
4 – Warranty & Performance Guarantees	14 – Parts Management
5 – Benchmarking	15 – Preventive Maintenance
6 – Life Cycle Cost	16 – Shop & Facilities Management
7 – Specifications	17 – Service Definitions
8 – Technology	18 – Service Marketing
9 – Employee Training	19 – Communications
10 – Environmental	20 – Service Improvement

Career Equipment Fleet Manager Manual (CEFM) - Paperback



Item Options

Sign in for your pricing!

Price: \$295.00

Status: Out of Stock

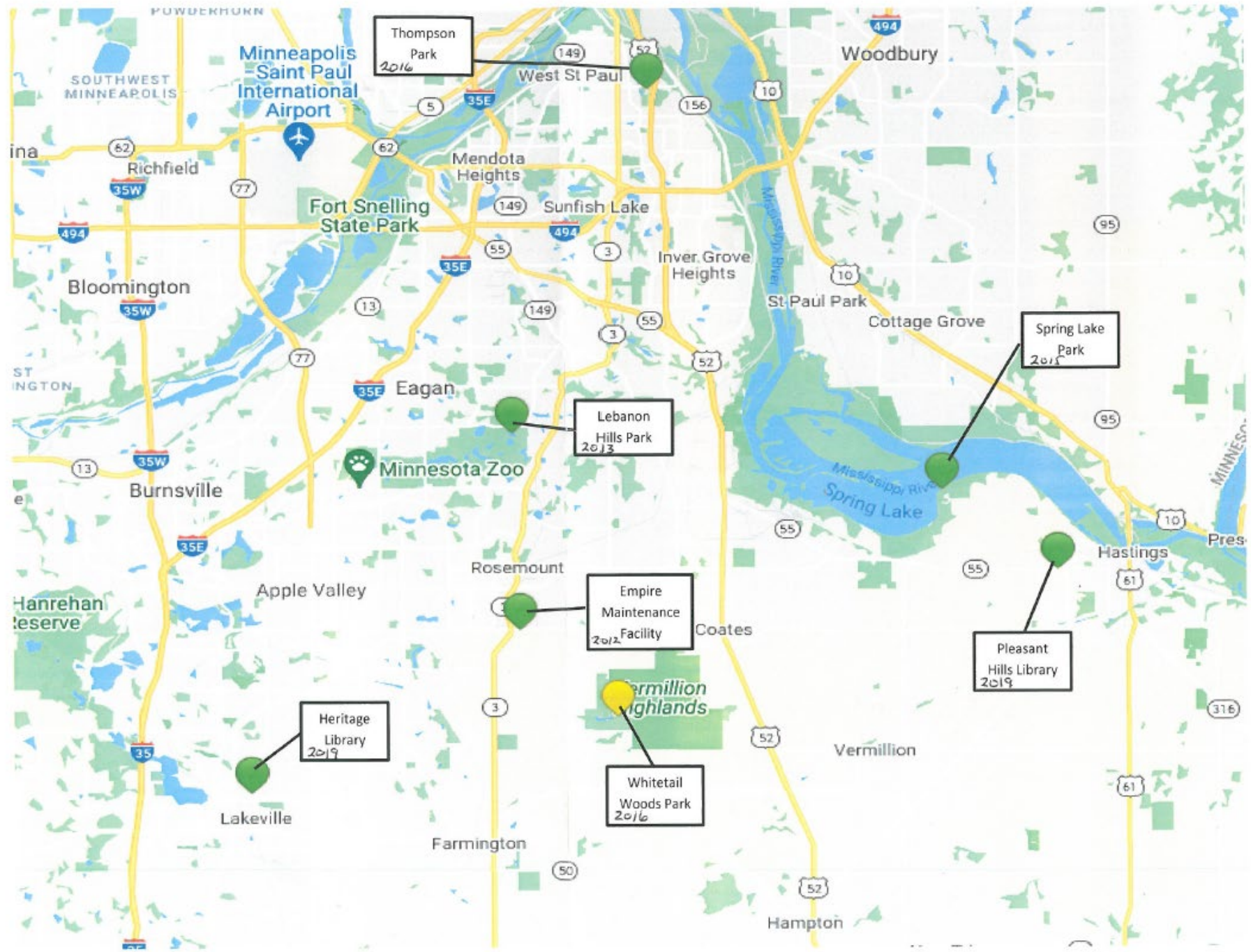
DAKOTA COUNTY, MINNESOTA

- **POPULATION 425,000**
- **3RD LARGEST MN COUNTY OF 87**
- **587 SQUARE MILES**
- **1/3 URBAN**
- **1/3 SUBURBAN**
- **1/3 RURAL**
- **30% POPULATION GROWTH FROM 1990 TO 2000**



DAKOTA COUNTY FLEET STORY

- **CENTRALIZED ON JUNE 1, 2007**
(16 DEPARTMENTS COMBINED INTO ONE)
- **OPERATIONAL BUDGET \$3.3 MILLION**
- **CAPITAL BUDGET \$2.2 MILLION**
- **EQUIPMENT REPLACEMENT VALUE \$30.1 MILLION**
- **6 FUEL ISLANDS & VOYAGER FUEL CREDIT CARDS**
- **7 ELECTRIC VEHICLE CHARGING STATION**
- **15 STORAGE LOCATIONS + TAKE HOME VEHICLES**
- **1 MAIN FLEET MAINTENANCE FACILITY AT EMPIRE**
- **3 FLEET FIELD SERVICE TRUCKS**
- **11,500 AVERAGE WORK ORDERS**
- **14 FTE'S**



JOINT POWERS AGREEMENTS

City of Hastings

City of Farmington

**MN Department of
Transportation**

**Domestic
Preparedness
Committee/Special
Operations Team**

**Community
Development
Agency (CDA)**

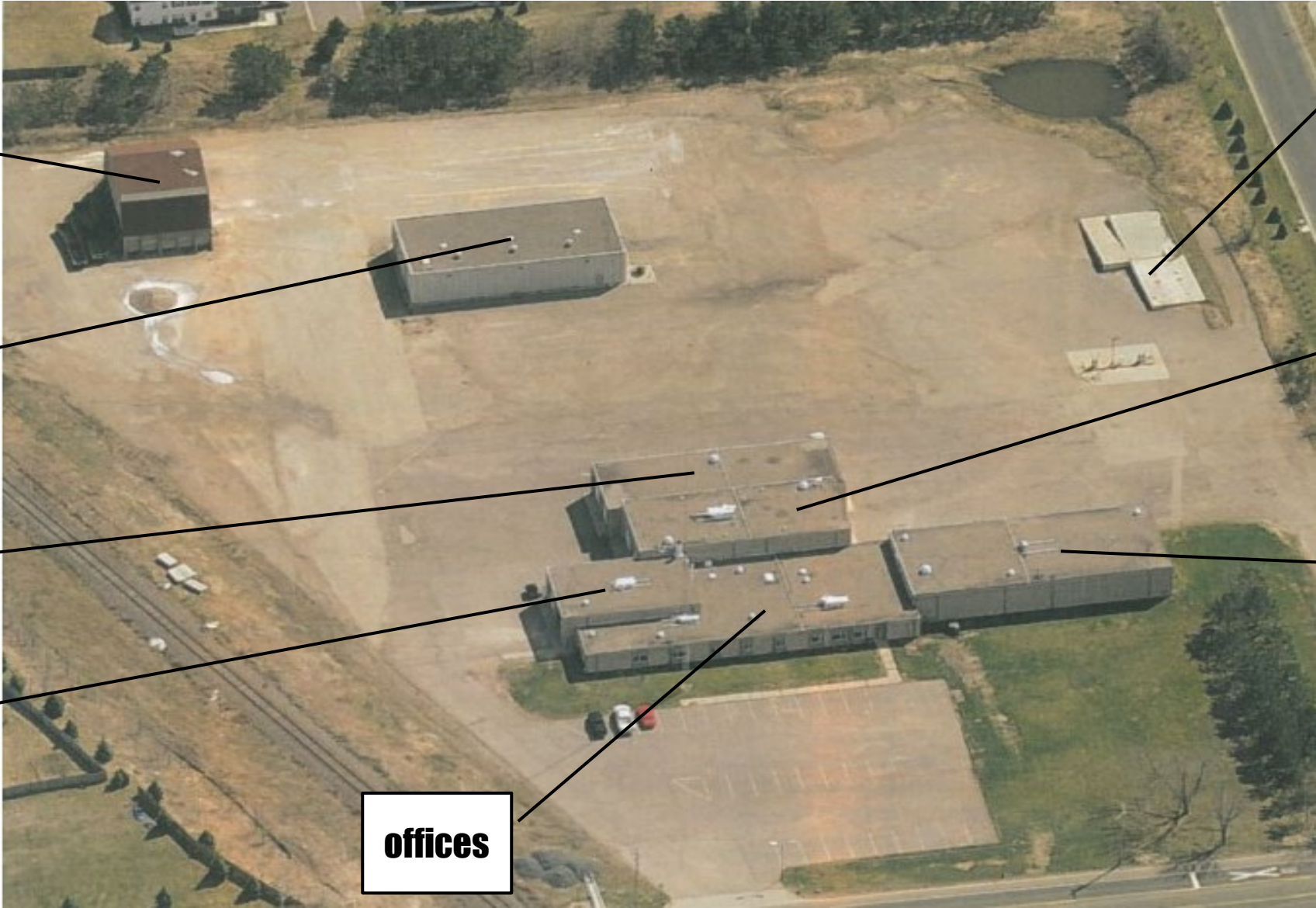
South Metro SWAT

**Dakota County Drug
Task Force**

**Dakota
Communications
Center (DCC)/Radio
Services**

**Soil and Water
Conservation
District (SWCD)**

DAKOTA COUNTY 2000



Salt

Cold Storage

Equipment Storage

Sign & Signal

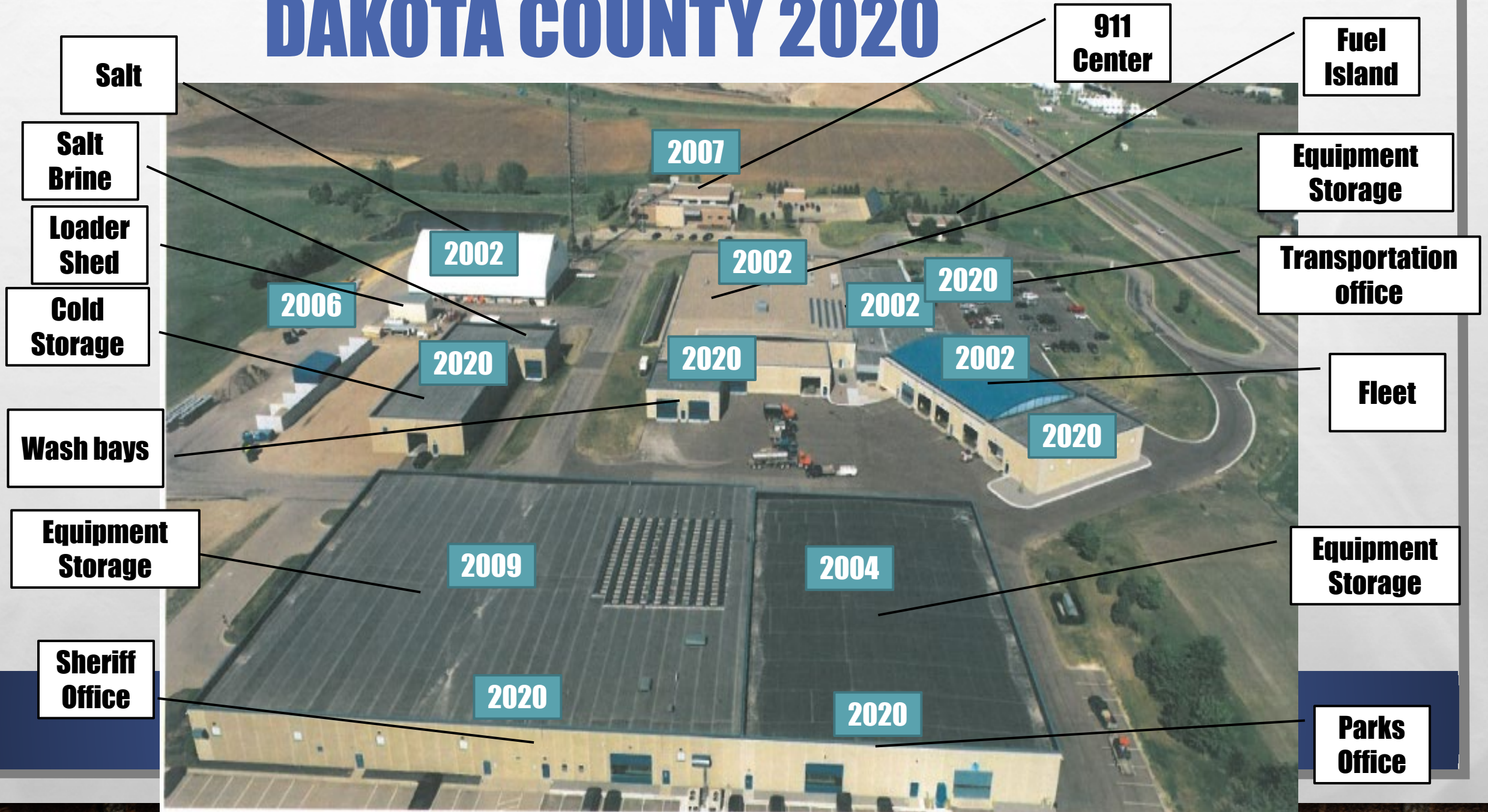
offices

Fuel Island

Fleet

Equipment Storage

DAKOTA COUNTY 2020



Salt

Salt Brine

Loader Shed

Cold Storage

Wash bays

Equipment Storage

Sheriff Office

911 Center

Fuel Island

Equipment Storage

Transportation office

Fleet

Equipment Storage

Parks Office

2007

2002

2006

2020

2002

2002

2020

2020

2002

2020

2009

2004

2020

2020



National Institute for
**AUTOMOTIVE
SERVICE
EXCELLENCE**

TECHNICIAN TRAINING AND EDUCATION

- **9 YEARS *BLUE SEAL OF EXCELLENCE CERTIFIED FLEET GARAGE***
- **165 INDIVIDUAL CERTIFICATIONS**
- **6 MASTER AUTOMOTIVE TECHNICIANS**
- **6 MASTER MEDIUM/HEAVY TRUCK TECHNICIANS**
- **8 EMERGENCY VEHICLE TECHNICIANS**



INDUSTRY BEST PRACTICES



LEARNING OBJECTIVES

- **DEVELOP FLEET CAPITAL REPLACEMENT PLAN (FLEET CEP) BASED ON 7 CRITERIA**
- **MEETING SUSTAINABILITY GOALS**
- **LINKING CAPITAL PROGRAM TO OPERATIONAL PROGRAM**
- **COMMUNICATING VALUE TO USER GROUPS, DECISION MAKERS AND ELECTED OFFICIALS**

FLEET CEP GOALS

- REPLACE VEHICLES AND EQUIPMENT ACCORDING TO LIFE-CYCLE COSTS**
- REDUCE REPAIR & MAINTENANCE COSTS**
- INCREASE FUEL EFFICIENCY**
- REDUCE GREEN HOUSE GAS EMISSIONS**
- INCREASE SAFETY**
- MEET USER NEEDS TO PERFORM ESSENTIAL SERVICES**
- REVIEW LOWER AND UPPER 10% UTILIZATION RATES**
- USE TELEMATICS (AVL/GPS) TO EVALUATE UTILIZATION & DRIVER BEHAVIOR**
- RECOMMEND REPLACEMENTS BY APPLYING FLEET CEP POINTS REPLACEMENT CRITERIA**

FLEET CAPITAL EQUIPMENT PROGRAM

- A. POINTS REPLACEMENT CRITERIA**
- B. FLEET INFORMATION SYSTEM DATABASE**
- C. FLEET COUNCIL**
- D. UTILIZATION**
- E. RIGHTSIZING**
- F. REDUCTIONS**
- G. ADDITIONS**
- H. SELECTOR LIST**
- I. REMARKETING**
- J. ADMINISTRATION/FINANCIAL SERVICES APPROVAL**
- K. COUNTY BOARD/CITY COUNCIL APPROVAL**

FLEET INVENTORY BY CLASSIFICATION

TOTAL 753 ACTIVE UNITS

- 42 POLICE SEDANS & POLICE UTILITY
- 32 SEDANS
- 26 MINIVANS
- 21 FULL SIZE VANS – CARGO, PASSENGER
- 12 SPORT UTILITY
- 72 TRUCKS PICKUPS – COMPACT, ½ TON, ¾ TON
- 34 TRUCKS WITH SPECIAL BODIES – DUMP, BUCKET, PAINT, SIGN
- 27 TRUCKS TANDEM SNOW PLOW
- 84 HEAVY AND LIGHT EQUIPMENT
- 16 WATERCRAFT, SNOWMOBILES & ATV'S
- 63 TRAILERS
- 6 LIFTS
- 122 ATTACHMENTS – FOR TRACTORS, LOADERS, TRUCKS, ETC..
- 196 SMALL EQUIPMENT – SAWS, BLOWERS, MOWERS, ETC...

\$30.1M
replacement value

Transportation – 30%
Parks, Facilities & Fleet – 39%
Sheriff Office – 26%
All Other Departments – 5%

A. POINTS REPLACEMENT CRITERIA

I. AGE

II. MILES/HOURS

III. TYPE OF SERVICE

IV. RELIABILITY

V. MAINTENANCE & REPAIR COSTS

VI. CONDITION

VII. ENERGY EFFICIENCY

Fleet CEP Points Replacement Guidelines

(based on APWA book Vehicle Replacement Guide)

Factor	Points												
Age	One point for each year of chronological age, based on in-service date.												
Miles/Hours	On Road Vehicles and Equipment one point for each 10,000 miles or one point for each 20,000 miles with 7 liter or larger size diesel engines Off Road Equipment one point for each 1000 hours of use on over 150 horsepower diesel engines or one point for each 200 hours of use on under 150 horsepower diesel engines												
Type of Service	1, 3 or 5 points are assigned based on the type of service that vehicle receives. For instance, a police patrol car would be given a 5 because it is in severe duty service. In contrast, an administrative sedan would be given a 1.												
Reliability	1 to 5 points are assigned depending on the frequency that a unit was in for repairs last year. A 5 would be assigned to a unit that is in the shop three or more times per month on average, while a 1 would be assigned to a unit in the shop an average of once every three months or less.												
Maintenance & Repair Costs (M&R)	1 to 5 points are assigned based on total M&R costs (not including repair of accident damage). A 5 is assigned to a unit with life to date M&R costs equal to or greater than the vehicle's original purchase price, while a 1 is given to a unit with life to date M&R costs equal to 20% or less of its original purchase cost.												
Condition	This category takes into consideration body condition, rust, interior condition, accident history, anticipated repairs, etc. A scale of 0 to 5 points is used with 5 being poor condition.												
Energy Efficiency	0 to a maximum of 6 points are assigned based on energy efficiency categories. Points from each category are added together to get total points. <ul style="list-style-type: none"> • 2 for utilization or sharing across Fleet groups • 2 for right sizing of replacement unit • 1 for flex fuel unleaded compatible or bio diesel fuel compatible engines • 2 for hybrid, electric or alternative fuel engine • 2 for alternative power unit or anti idle technology 												
Point Ranges	<table border="0"> <tr> <td>Under 18 points</td> <td>Condition I</td> <td>Excellent</td> </tr> <tr> <td>18 to 22 points</td> <td>Condition II</td> <td>Good</td> </tr> <tr> <td>23 to 27 points</td> <td>Condition III</td> <td>Qualifies for replacement</td> </tr> <tr> <td>28 points and above</td> <td>Condition IV</td> <td>Needs immediate consideration</td> </tr> </table>	Under 18 points	Condition I	Excellent	18 to 22 points	Condition II	Good	23 to 27 points	Condition III	Qualifies for replacement	28 points and above	Condition IV	Needs immediate consideration
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18 to 22 points	Condition II	Good											
23 to 27 points	Condition III	Qualifies for replacement											
28 points and above	Condition IV	Needs immediate consideration											

Based on in-service date

Based on Class of Vehicle or Equipment by four different criteria

Based on Class of Vehicle or Equipment

Based on each individual Equipment # looking at the Closed Repair Order Count for (Last Year)

- 1 for 4 or less
- 2 for 5 to 15
- 3 for 16 to 25
- 4 for 26 to 35
- 5 for 36 or more

Based on each individual Equipment # comparing the Standard Maintenance Costs to the (Purchase Price + Non-Maintenance Costs)

- 1 for 20% or less
- 2 for 21% to 48%
- 3 for 49% to 75%
- 4 for 76% to 99%
- 5 for 100% or higher

This will be filled in by Fleet staff based on condition evaluation

These points are awarded based on the recommended replacement unit and will be filled in by Fleet staff

Fleet CEP Points Replacement Guidelines/

Factor	Points
Age	One point for each year of chronological age, based on in-service date.
Miles/Hours	On Road Vehicles and Equipment one point for each 10,000 miles or one point for each 20,000 miles with 7 liter or larger size diesel engines Off Road Equipment one point for each 1000 hours of use on over 150 horsepower diesel engines or one point for each 200 hours of use on under 150 horsepower diesel engines
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I. AGE

- **ONE POINT FOR EACH YEAR OF CHRONOLOGICAL AGE**
- **BASED ON IN-SERVICE DATE**



II. MILES OR HOURS

- 1. ONE POINT FOR EACH 10,000 MILES**
- 2. ONE POINT FOR EACH 20,000 MILES ON 7 LITER DIESEL ENGINES**
- 3. ONE POINT FOR EACH 1000 HOURS ON OVER 150 HORSEPOWER DIESEL ENGINES**
- 4. ONE POINT FOR EACH 200 HOURS ON UNDER 150 HORSEPOWER DIESEL ENGINES**



III. TYPE OF SERVICE

ASSIGN A 1, 3 OR 5 BASED ON SERVICE TYPE

➤ **1 FOR ADMINISTRATIVE SEDAN**

➤ **5 FOR POLICE PATROL SEDAN**



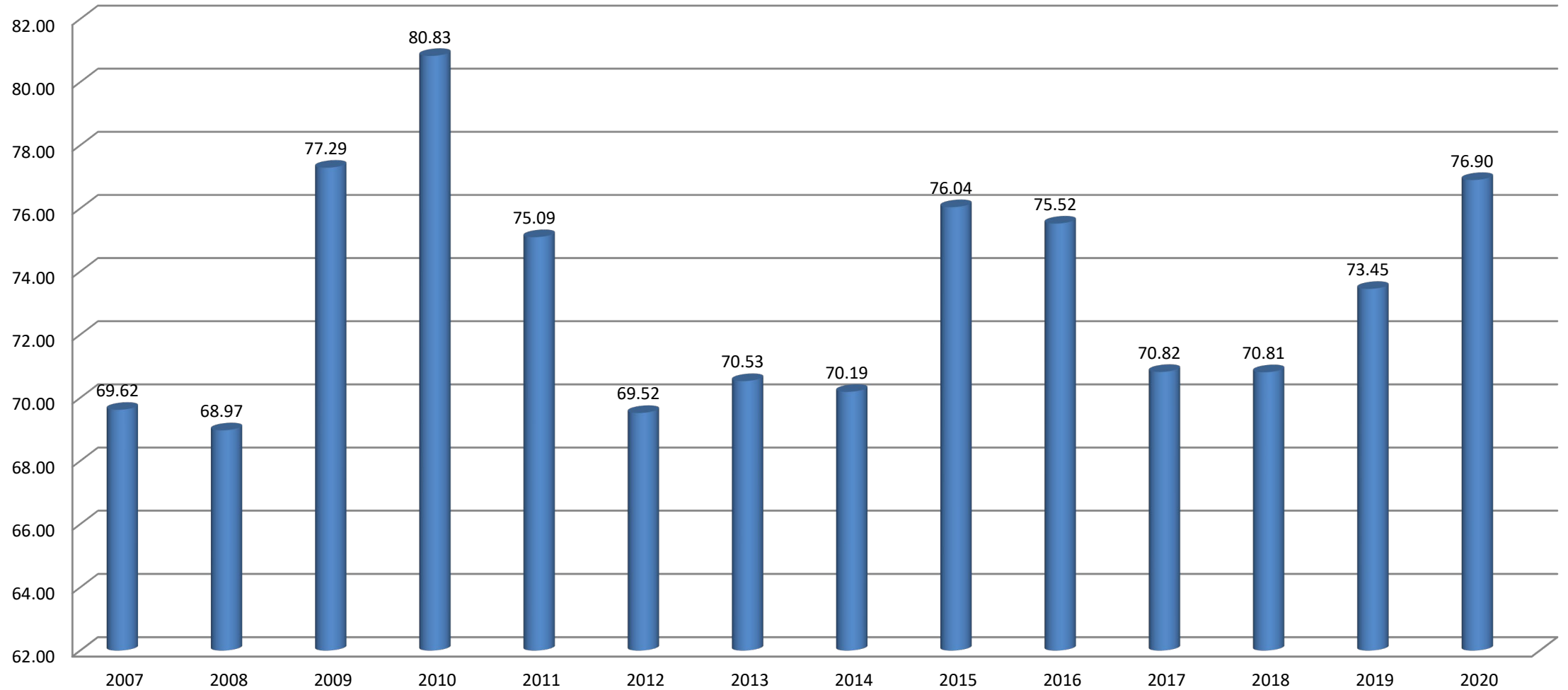
IV. RELIABILITY

**LOOKING AT CLOSED REPAIR ORDER COUNT FOR
LAST YEAR**

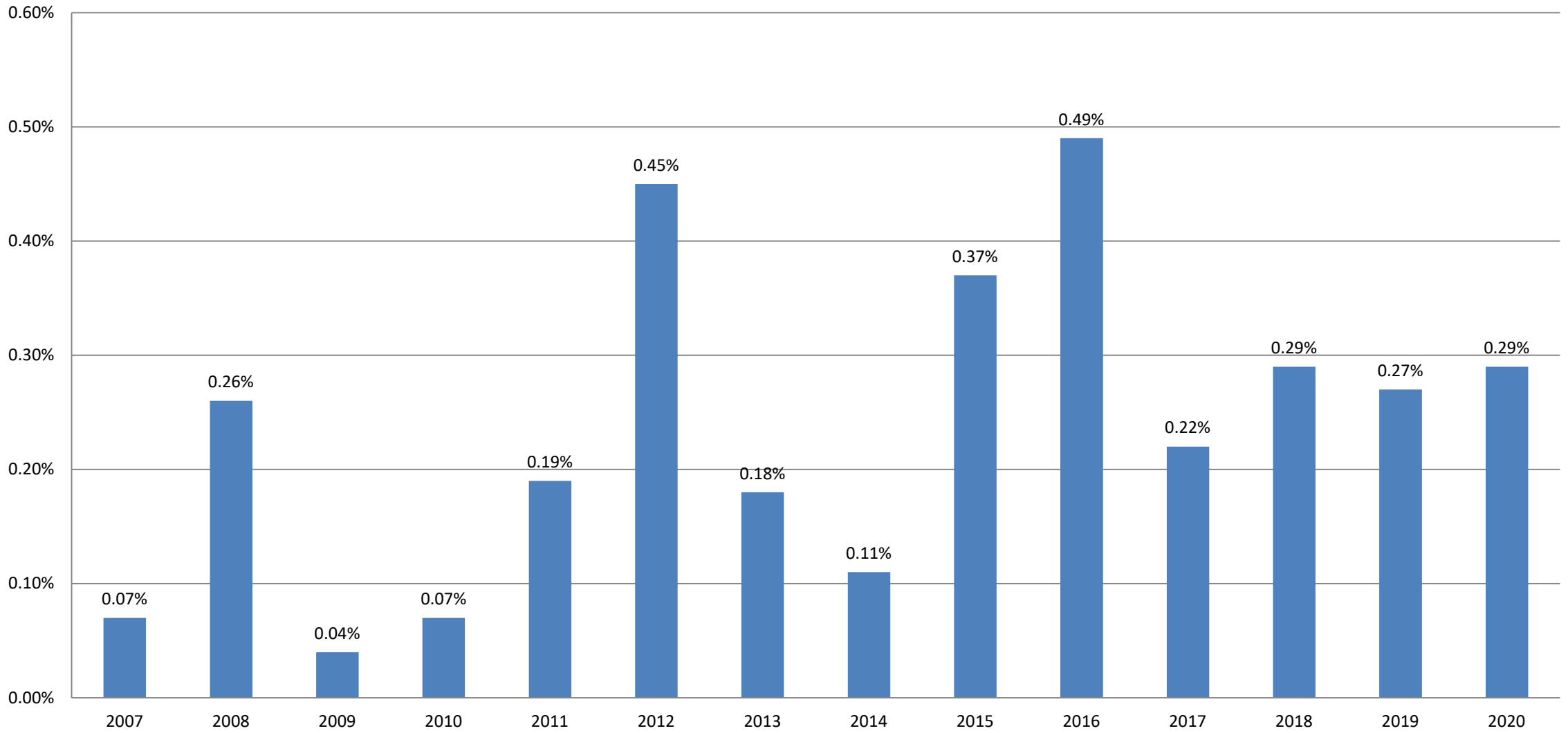
- **1 FOR 4 OR LESS**
- **2 FOR 5 TO 15**
- **3 FOR 16 TO 25**
- **4 FOR 26 TO 35**
- **5 FOR 36 OR MORE**



Fleet Technician Utilization Rate



County Fleet Rework Repairs

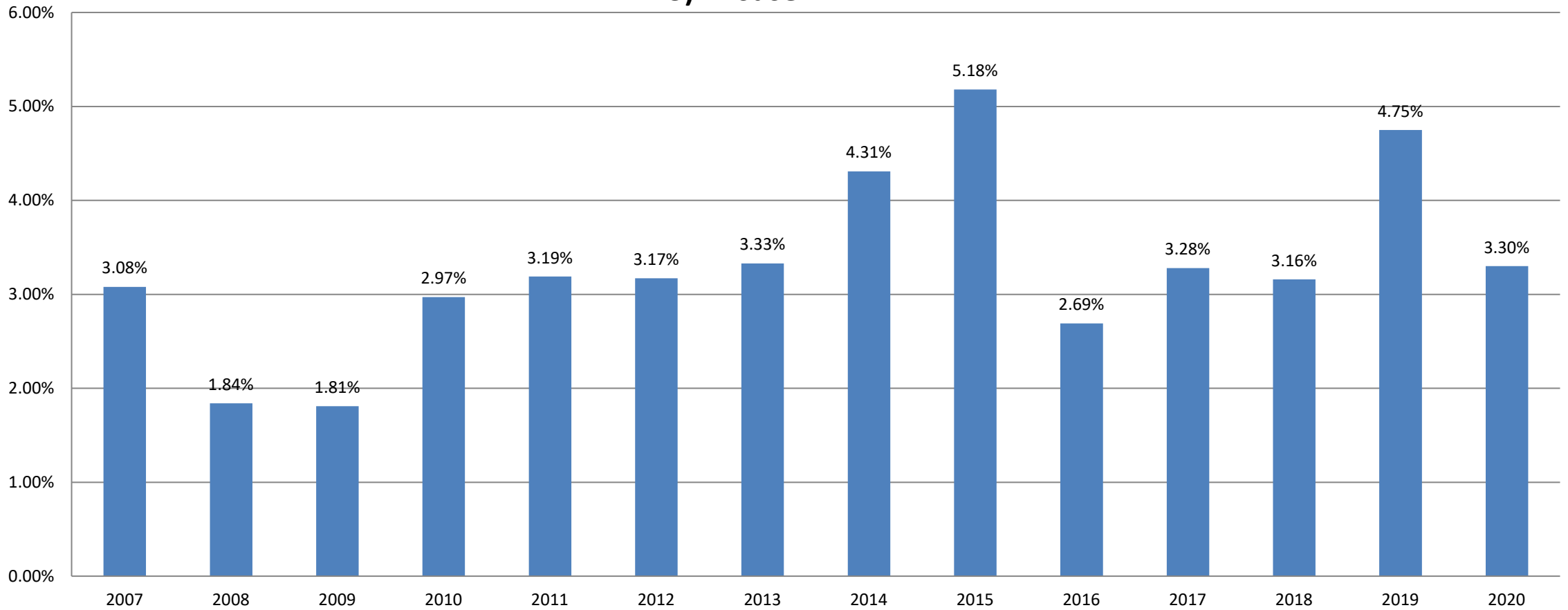


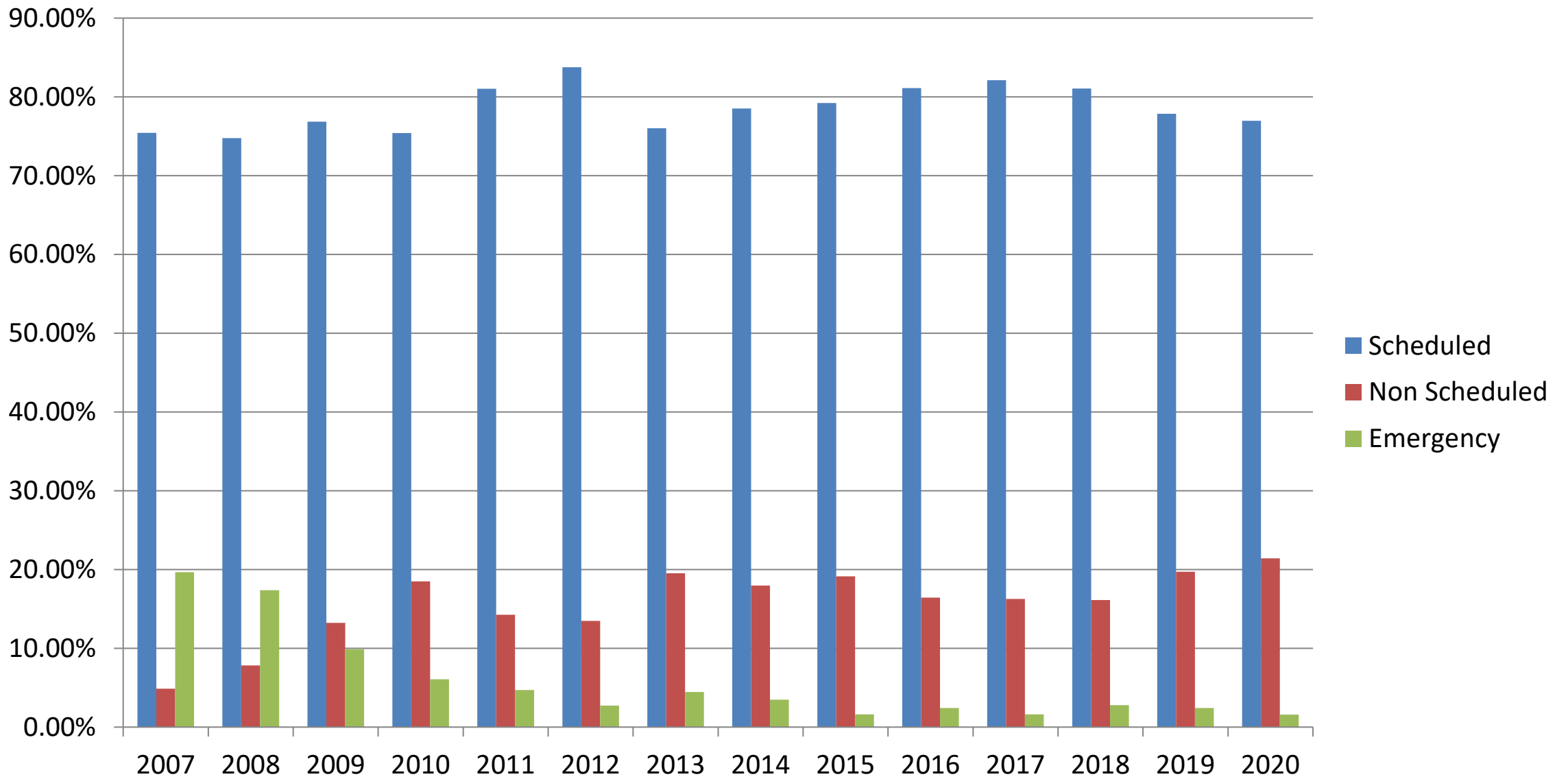
County Fleet Operator Error % of Total Repairs

1) unreported damage

2) lack of maintenance

3) misuse





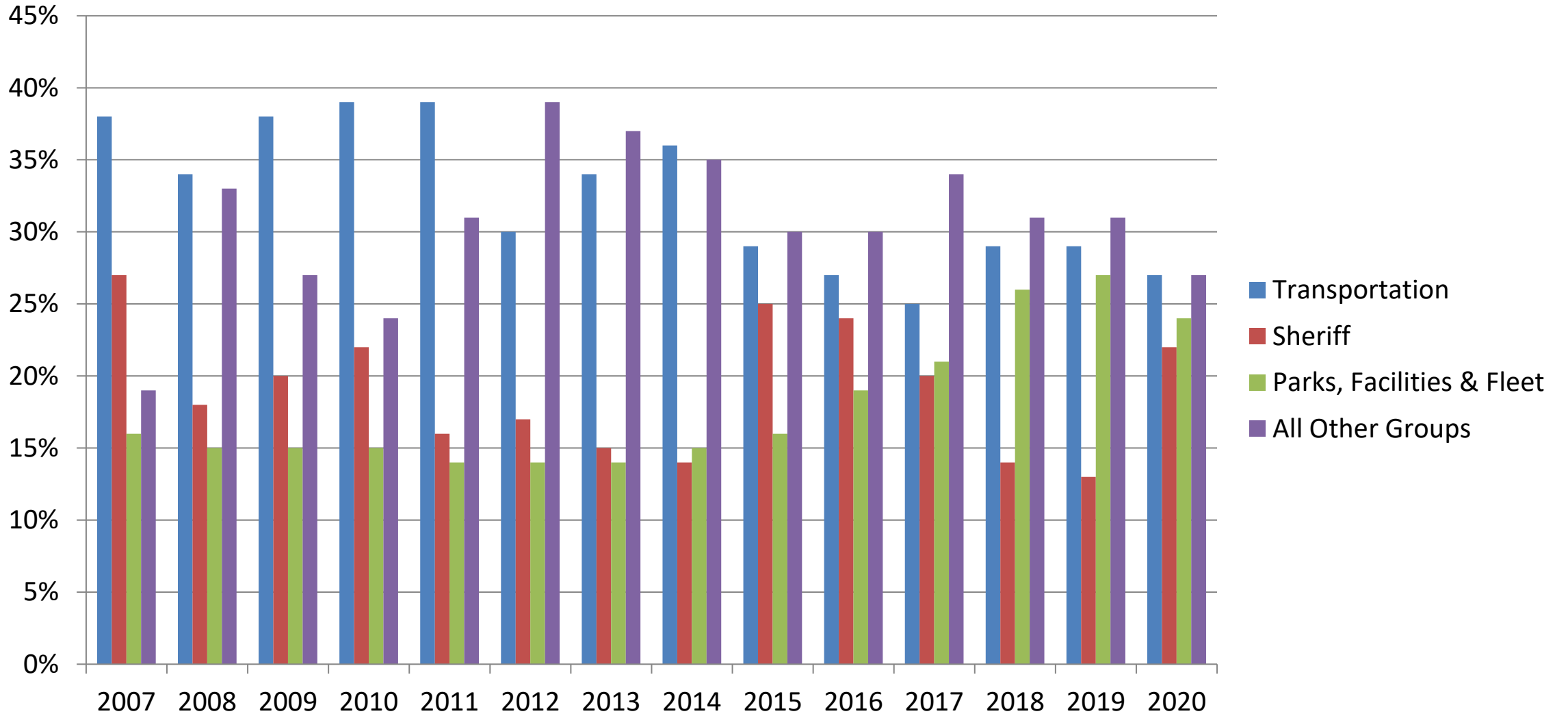
V. MAINTENANCE & REPAIR COSTS

COMPARING THE STANDARD MAINTENANCE COSTS TO THE (PURCHASE PRICE + NON MAINTENANCE COSTS)

- 1 FOR 20% OR LESS
- 2 FOR 21% TO 48%
- 3 FOR 49% TO 75%
- 4 FOR 76% TO 99%
- 5 FOR 100% OR HIGHER



Repair Labor Percent Per Group



VI. CONDITION

0 TO 5 POINTS WITH 5 BEING POOR CONDITION

✓ **BODY CONDITION**

✓ **RUST**

✓ **INTERIOR CONDITION**

✓ **ACCIDENT HISTORY**

✓ **ANTICIPATED REPAIRS**

ESTIMATED BY FLEET STAFF TO DETERMINE RATING

VII. ENERGY EFFICIENCY

ONLY POINTS THAT APPLY TO THE REPLACEMENT UNIT WITH A MAXIMUM OF 6 POINTS

- 2 FOR SHARING ACROSS GROUPS
- 2 FOR RIGHTSIZING
- 1 FOR FLEX FUEL
- 2 FOR HYBRID, ELECTRIC OR ALTERNATIVE FUEL
- 2 FOR ALTERNATIVE POWER UNIT OR ANTI IDLE



POINTS RANGE

Under 18 Points	Condition I	Excellent
18 to 22 Points	Condition II	Good
23 to 27 Points	Condition III	Qualifies for Replacement
28 Points and Above	Condition IV	Needs Immediate Consideration

HOW POINTS WOULD BE APPLIED

AGE = 5 POINTS

MILEAGE = 9 POINTS

TYPE OF SERVICE = 5 POINTS

RELIABILITY = 5 POINTS

MAINTENANCE & REPAIR = 3 POINTS

CONDITION = 5 POINTS

ENERGY EFFICIENCY = 1 POINT

TOTAL POINTS = 33 OR CONDITION IV (NEEDS IMMEDIATE CONSIDERATION)

<POLICE SEDAN>

- **5 YEARS OLD**
- **90,000 MILES**
- **POOR CONDITION**
- **40 CLOSED REPAIR ORDERS LAST YEAR**
- **REPAIR COSTS EQUAL TO 70% OF PURCHASE PRICE**
- **E85 REPLACEMENT UNIT**

Fleet CEP Points Replacement Criteria (2019 recommended replacements)

yellow = hour meter

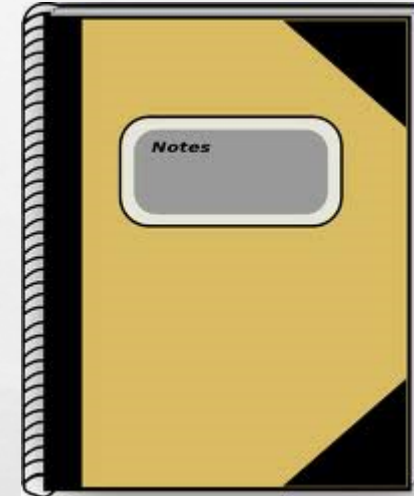
Item Number	Equipment #	Year	Chassis Make	Chassis Model	Fleet	Class	In-Service Date	Purchase Price	Meter_01 Reading	Last Year Meter_01 Usage	Closed Repair Order Count	Standard Maintenance Cost	Non Maintenance Cost	Age Points	Miles/Hours Points	Type of Service Points	Reliability Points	Maintenance and Repair Cost Points	Condition Points	Energy Efficiency Points	Total Points (add all yellow)	calendar year points to add	June 2019 points
1	24	2007	STERLING	LT9511	Trans Maintenance	Truck 33+ GVW CL8	09/07/2006	\$172,116.71	168,255	13,235	28	\$198982.39	\$15887.76	12	8	3	4	5	5	1	38.41275	1.25	39.66275
2	23	2007	STERLING	LT9511	Trans Maintenance	Truck 33+ GVW CL8	09/07/2006	\$172,116.71	142,555	10,711	28	\$194145.58	\$18739.11	12	7	3	4	5	5	1	37.12775	1.25	38.37775
3	13	2007	STERLING	LT9511	Trans Maintenance	Truck 33+ GVW CL8	09/07/2006	\$169,071.19	64,330	4,475	45	\$188207.60	\$26636.09	12	3	3	5	4	5	1	33.2165	1.25	34.4665
4	14	2007	STERLING	LT9511	Trans Maintenance	Truck 33+ GVW CL8	09/07/2006	\$169,071.19	96,448	5,523	25	\$151915.51	\$16576.15	12	5	3	3	4	5	1	32.8224	1.25	34.0724
7	1302	2013	FORD	POLICE-INTERCEPTOR-S	Sheriff SRO	Sedan Police	11/07/2012	\$29,596.11	80,849	25,920	23	\$7861.00	\$10669.17	6	8	5	3	1	5	1	29.0849	3.5	32.5849
8	511	2009	JOHN DEERE	1445	Parks Maintenance	Tractor	03/16/2009	\$33,130.31	1,370	97	8	\$30900.85	\$6739.67	9	7	3	2	4	3	1	28.85	1.5	30.35
9	1312	2013	FORD	POLICE-INTERCEPTOR-S	Sheriff SRO	Sedan Police	10/21/2013	\$29,965.29	78,033	11,101	16	\$9878.74	\$8643.29	5	8	5	3	2	4	1	27.8033	2.25	30.0533
10	FRD06	2007	FORD	ESCAPE	800 MHz Vehicles	Sport Utility 2WD4WD	07/03/2007	\$23,410.12	71,392	2,226	10	\$7047.18	\$763.69	11	7	1	2	2	5	0	28.1392	1.5	29.6392
11	1504	2015	FORD	POLICE-INTERCEPTOR-U	Sheriff Patrol	SUV Police 2WD/4WD	01/28/2015	\$34,316.38	100,352	29,190	16	\$8885.97	\$11324.65	3	10	5	3	1	2	1	25.0352	4	29.0352
12	510	2009	JOHN DEERE	1445	Parks Maintenance	Tractor	03/13/2009	\$33,130.31	1,195	135	15	\$26372.54	\$10012.20	9	6	3	2	3	3	1	26.975	1.5	28.475
13	1503	2015	FORD	POLICE-INTERCEPTOR-U	Sheriff Patrol	SUV Police 2WD/4WD	01/20/2015	\$34,316.38	86,092	26,310	16	\$9634.95	\$10920.25	3	9	5	3	2	2	1	24.6092	3.75	28.3592
14	1501	2015	FORD	POLICE-INTERCEPTOR-U	Sheriff Patrol	SUV Police 2WD/4WD	12/26/2014	\$34,316.38	71,346	19,464	22	\$12726.12	\$11580.80	4	7	5	3	2	3	1	25.1346	3	28.1346
15	1318	2013	FORD	POLICE-INTERCEPTOR-S	Sheriff Patrol	Sedan Police	07/31/2013	\$28,900.62	77,267	11,918	7	\$7696.33	\$9621.90	5	8	5	2	1	4	1	25.7267	2.25	27.9767
16	1106	2011	FORD	FUSION	Sheriff Investigate	Sedan	07/28/2011	\$28,546.24	96,708	12,033	7	\$5256.63	\$3563.84	7	10	1	2	1	3	2	25.6708	2.25	27.9208
17	539	2009	CHEVROLET	COLORADO	Parks Maintenance	Compact Pickup 4WD	07/20/2009	\$20,358.38	83,123	13,236	6	\$6255.67	\$434.47	9	8	1	2	2	3	0	25.3123	2.25	27.5623
18	60	2010	GMC	CANYON	Trans Traffic	Compact Pickup 4WD	03/29/2010	\$20,365.09	81,067	16,536	9	\$5890.93	\$469.82	8	8	1	2	2	3	0	24.1067	2.75	26.8567
19	1011	2010	FORD	FUSION	Sheriff Investigate	Sedan	05/26/2010	\$28,208.91	74,950	10,768	7	\$4684.18	\$4310.24	8	7	1	2	1	3	2	24.495	2	26.495
20	49	2009	CHEVROLET	COLORADO	Trans Construction	Compact Pickup 4WD	07/20/2009	\$21,911.23	83,728	8,437	3	\$8137.76	\$2329.47	9	8	1	1	2	3	0	24.3728	1.75	26.1228
21	JDR07	2010	JOHN DEERE	1445	Facilities Equipment	Tractor	02/19/2010	\$35,485.25	951	39	12	\$31143.23	\$8071.33	8	5	3	2	3	3	1	24.755	1.25	26.005
22	JDR06	2009	JOHN DEERE	1445	Facilities Equipment	Tractor	03/05/2009	\$33,130.31	548	15	6	\$19312.64	\$4352.68	9	3	3	2	3	3	1	23.74	1.25	24.99

B. FLEET INFORMATION DATABASE

❖ **NEEDED TO MAKE AN INFORMED RECOMMENDATION**

❖ **IF YOU DON'T TRACK ITHOW CAN YOU EVALUATE**

- COMPLETE ASSET TRACKING**
- PREVENTIVE MAINTENANCE**
- SCHEDULED MAINTENANCE**
- NON-SCHEDULED REPAIRS**
- FUEL**
- RISK MANAGEMENT (ACCIDENTS)**
- SYSTEM COSTS FROM \$5,000 TO OVER \$100,000**
- STAND ALONE, NETWORK OR WEB BASED SYSTEMS**



C. FLEET COUNCIL

- **USER GROUP FEEDBACK**
- **ESTABLISHES TRUST & EXPECTATIONS**
- **COMMUNICATE VALUE**
- **DEVELOP POLICY**
- **MEET QUARTERLY AS GROUP**
- **MEETING WITH INDIVIDUAL DEPARTMENTS**
- **MEETING MINUTES TO ALL DEPARTMENT DIRECTORS**



D. UTILIZATION

- **ODOMETERS**
- **HOUR METERS**
- **HUB METERS**
- **CALENDAR DAYS**
- **TELEMATICS (AVL)**
- **UPPER AND LOWER 10%**
- **JUSTIFICATION FOR NEED**
- **ENCOURAGES SHARING**
- **CONVERT TO POOL USE**
- **OPERATIONAL COSTS EVEN IF UNIT IS SITTING**
- **DEPRECIATION IS HIGHEST COST**



WHAT IS A TELEMATICS SOLUTION?

- **USING GLOBAL POSITIONING SYSTEMS (GPS)**
- **ESTABLISHING AUTOMATIC VEHICLE LOCATION (AVL) TRACKING**
- **CONNECTING TO THE VEHICLE ON BOARD DIAGNOSTIC SYSTEM**
- **ESTABLISHING USER OPERATIONAL EXPECTATIONS**
- **TRAINING USERS ON SYSTEMS**
- **USING THE SYSTEM INFORMATION AND FEATURES TO INCREASE SAFETY AND TO REDUCE OPERATIONAL COSTS**
- **DEVELOPING POLICIES CONNECTED WITH THIS TECHNOLOGY**

TELEMATICS IMPLEMENTATION

- 2005 FIRST SYSTEMS (MANUAL DOWNLOAD 25 SNOW PLOW TRUCKS)
- 2009 UPGRADED TO WI-FI DOWNLOAD
- 2011 EXPANDED TO 70 UNITS IN OTHER DEPARTMENTS
- REDUCE OPERATIONS COSTS
- IMPROVE ACCOUNTABILITY
- IMPROVE SAFETY
- DEVELOP SUPERVISOR TRAINING PROGRAM
- IMPROVE REPORT OPTIONS
- IMPLEMENT PROJECT FROM CAPITAL PROGRAM AND COST SAVINGS IN OPERATING BUDGET
- DEVELOP POLICIES
- NOW 319 UNITS (ALL ON ROAD UNITS IN ALL DEPARTMENTS)

✓ Pilot Program Before Implementation

✓ Development of Reports & Standards(handout)

✓ Development of Training Program & Educating Staff

✓ Program Results

▪MPG increase: 9.5%

▪Idling cost reduction: 7.2%

▪Harsh braking: 28.6%; Acceleration 56.5%; Turns 68.6%

▪Speeding reduction: 22.8%

▪Seatbelt use increase: 92%

Dakota County Fleet Management

Telematics Monthly Summary Report

3 From January 1, 2013
4 To January 31, 2013
5 Total Days 31
6 Work Days 23

data report start date

data report end date

expected available work days in the month as weekends are removed - expected average availability of 5 days a week

total calendar days in the month

how often unit was started up and moved

engine idle time when moving less than 3 miles per hour for more than 5 minutes

seatbelt (driver's only) not in use when traveling more than 10 miles per hour

number of times unit exceeded harsh driving as per Geotab 3-axis accelerometer

Speed over 70 miles per hour for more than 10 seconds

Utilization

Idling < 3 MPH > 5 Minutes

Seatbelt > 10 MPH

Harsh Driving

Speed > 70 MPH > 10 Seconds

Unit Number (Device)	County Fleet (Device Group)	Unit Number Classification	DriverScore (Encompass)	Utilization				Idling Cost (Encompass)	Idling < 3 MPH > 5 Minutes			Seatbelt > 10 MPH			Harsh Driving			Speed > 70 MPH > 10 Seconds										
				Duration	Distance	Days	Monthly Percent Used		Duration	Distance	Incident Count	Supported	Duration	Distance	Incident Count	Acceleration Incident Count	Braking Incident Count	Cornering Incident Count	Duration	Distance	Incident Count							
							0.00%																					

Dakota County unit number assigned to asset

is the unit a sedan, pickup, truck, etc.

Dakota County Fleet that asset is assigned to (this also matches the Geotab device group)

to count as utilization for a day, engine must be on with unit moving 5 miles per hour for more than 1 mile in a 24 hour period

days unit was used divided by work days in month (B6/G)

Encompass Idling Cost calculation showing the cost of the gallons of fuel burned from idle time

is the seatbelt use indicator supported through the diagnostic monitoring port that the Geotab device is hooked up to (yes or no) if no then no data is supplied

Key for duration, distance and incident count

duration = amount of time in hours and minutes that unit spent exceeding event rule
 distance = amount of miles that unit spend exceeding event rule
 incident count = amount of individual times that unit exceeded event rule

Example: Speed > 70 MPH > 10 seconds
 - duration and distance only count the time and miles spent traveling over 70 for more than 10 seconds
 - incident count is each time you travel over 70 for more than 10 seconds, when you exceed the rule event then that counts as one incident even if you spend the next hour traveling over 70 but never go below 70, when you drop below 70 then it will count again when you go above 70 for more than 10 seconds

Encompass DriverScore based on 4 events with each weighted at 25% (highest score is 100 with deductions taken for the below events)
 - 1) Harsh Braking - scored on number of incidents
 - 2) Harsh Cornering - scored on number of incidents
 - 3) Fast Acceleration - scored on number of incidents
 - 4) Speeding - based on Road Based Speed (RBS) that is set at any time the unit travels 8 miles per hour over the posted road speed and then it includes a calculation of the number of events and the distance of overall speeding

The scoring algorithms are created that the average score is at 70 or a solid "C" student driver.

LESSONS LEARNED

- **HAVE CLEAR PROJECT GOALS**
- **NEED COOPERATION OF ALL GROUPS**
- **ESTABLISH REPORTING CRITERIA**
 - **DRIVERS SCORE**
 - **IDLING COSTS**
 - **UTILIZATION**
 - **AGGRESSIVE DRIVING**
- **ESTABLISH EXPECTATIONS**
- **DEVELOP TRAINING PROGRAM TO INFORM USER GROUPS AND UPPER MANAGEMENT**
- **FLEET ELECTRONIC TRACKING TECHNOLOGY POLICY**
- **IT WILL TAKE RESOURCES TO GET A CLEAR ROI**
- **CLEAR GOALS**
- **GROUP EFFORT**
- **VENDORS WHO WILL WORK WITH YOU**
- **CALIBRATE YOUR SANDERS**
- **IT TAKES TIME**











00:28



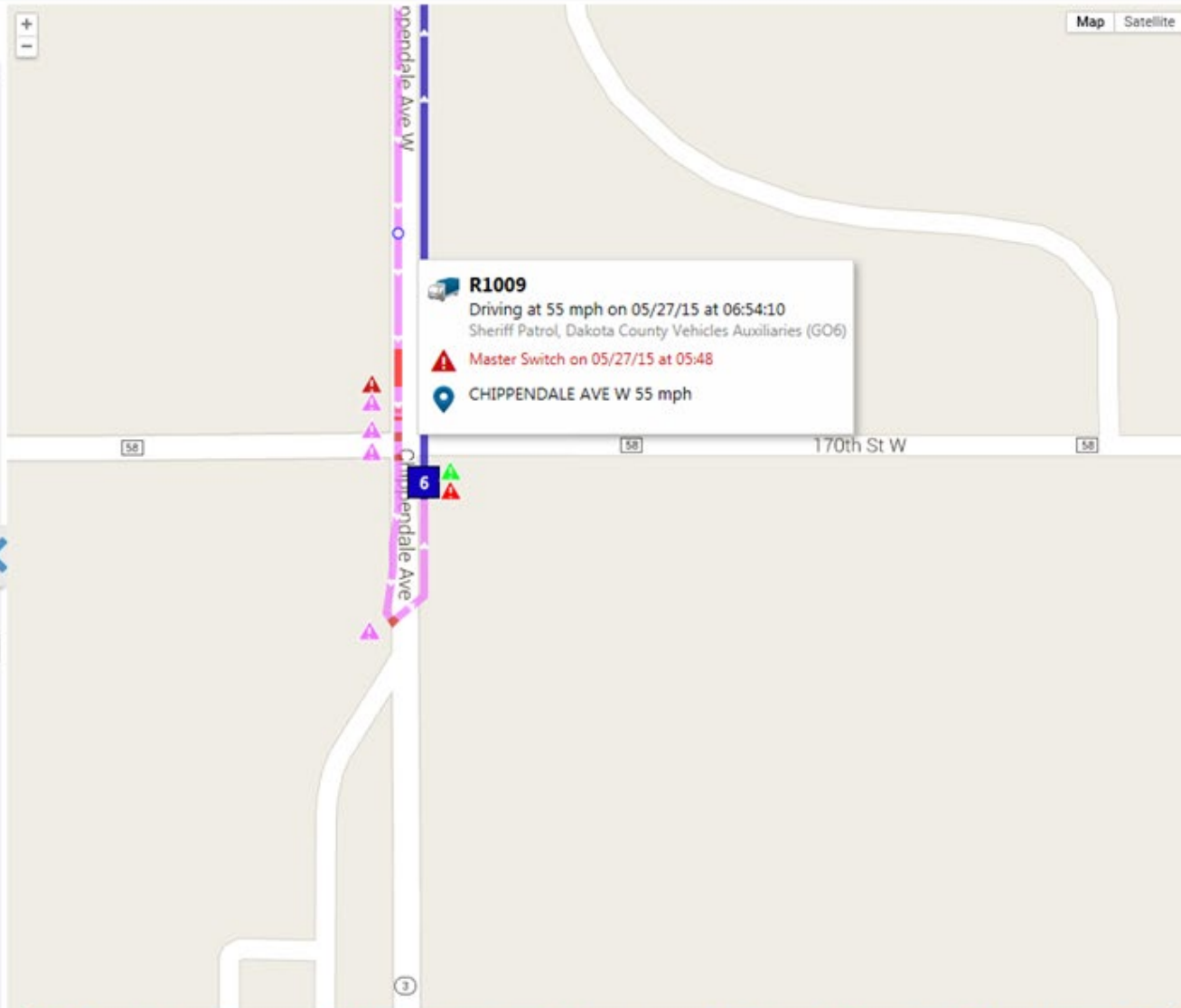


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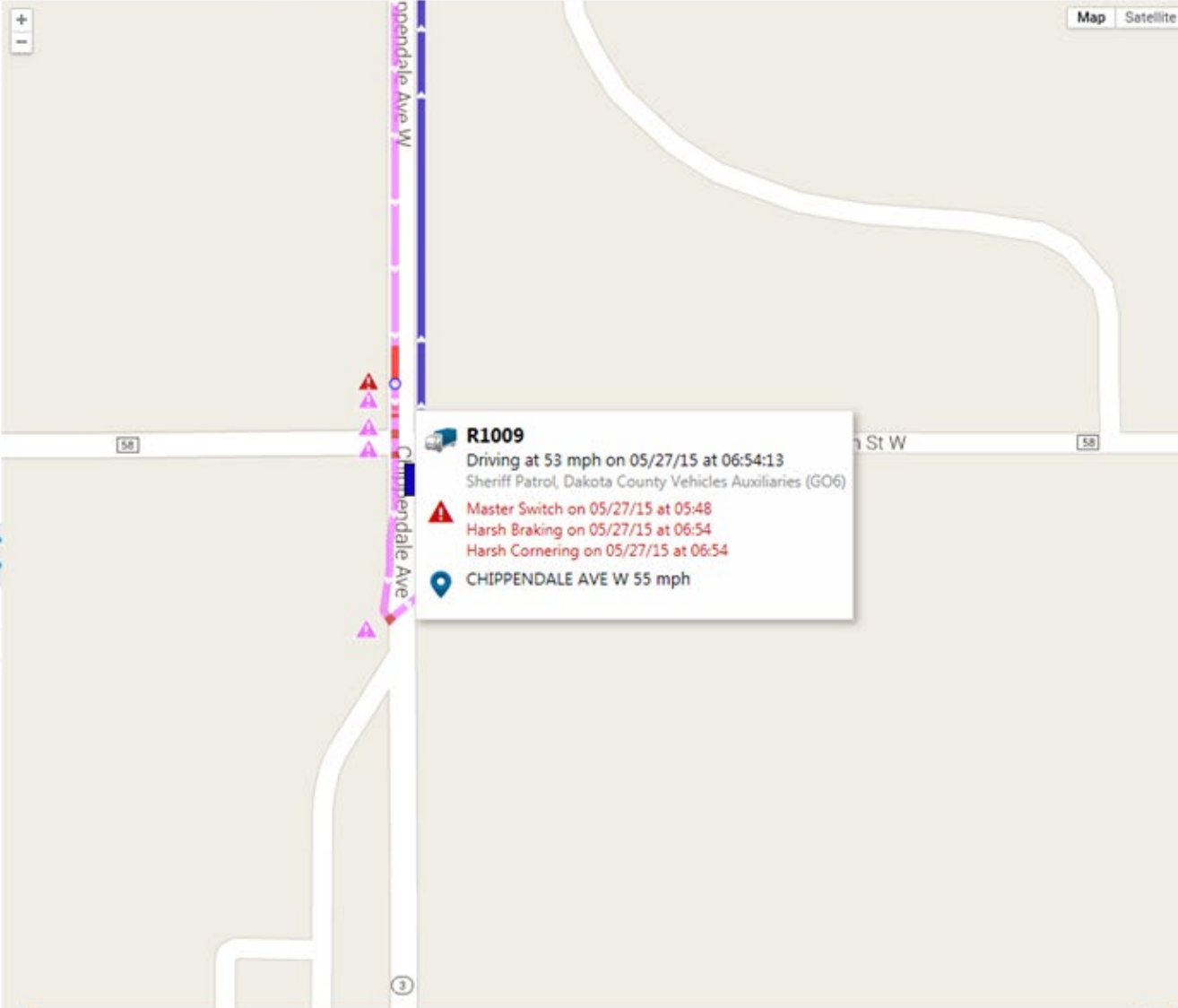
- May 01 - 31, 2015
- from 07:17 to 08:59
 - Hastings Facility: 100... from 09:07 to 09:14
 - 8485 240th Street Ea... from 09:47 to 09:52
 - Law Enforcement Ce... from 10:13 to 10:40
 - 1803 Ashland Street from 10:53 to 11:03
 - 1719-1799 Ashland S... from 11:05 to 11:26
 - 1708 Ashland Street from 11:36 to 11:41
 - 1-199 21st Avenue S... from 12:14 to 12:30
 - 5728 Bishop Avenue,... from 12:37 to 12:42
 - 2000-2398 220th Str... from 13:45 to 13:58



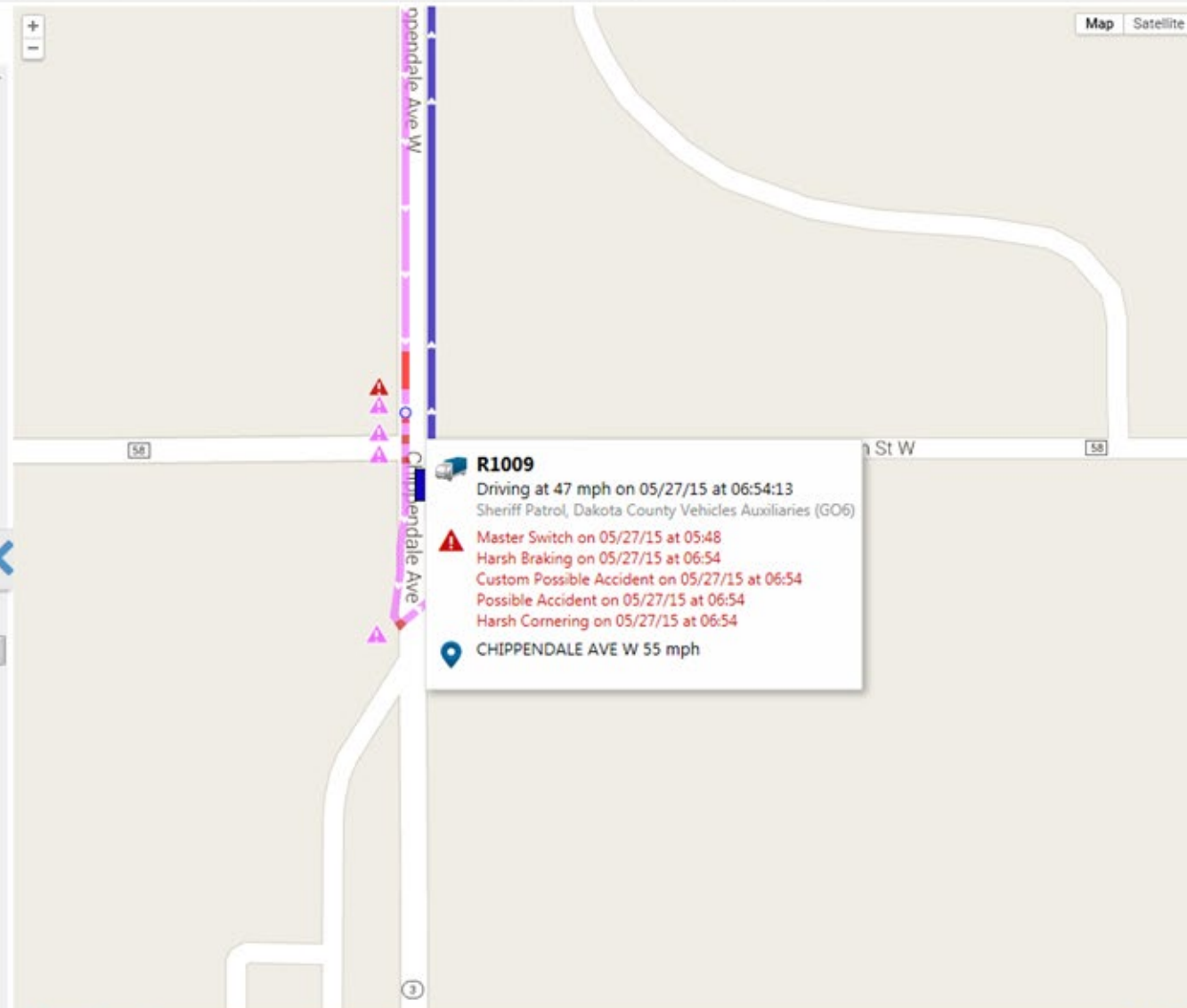
Vehicle, VIN, zone, route or add Options Summary Live positions

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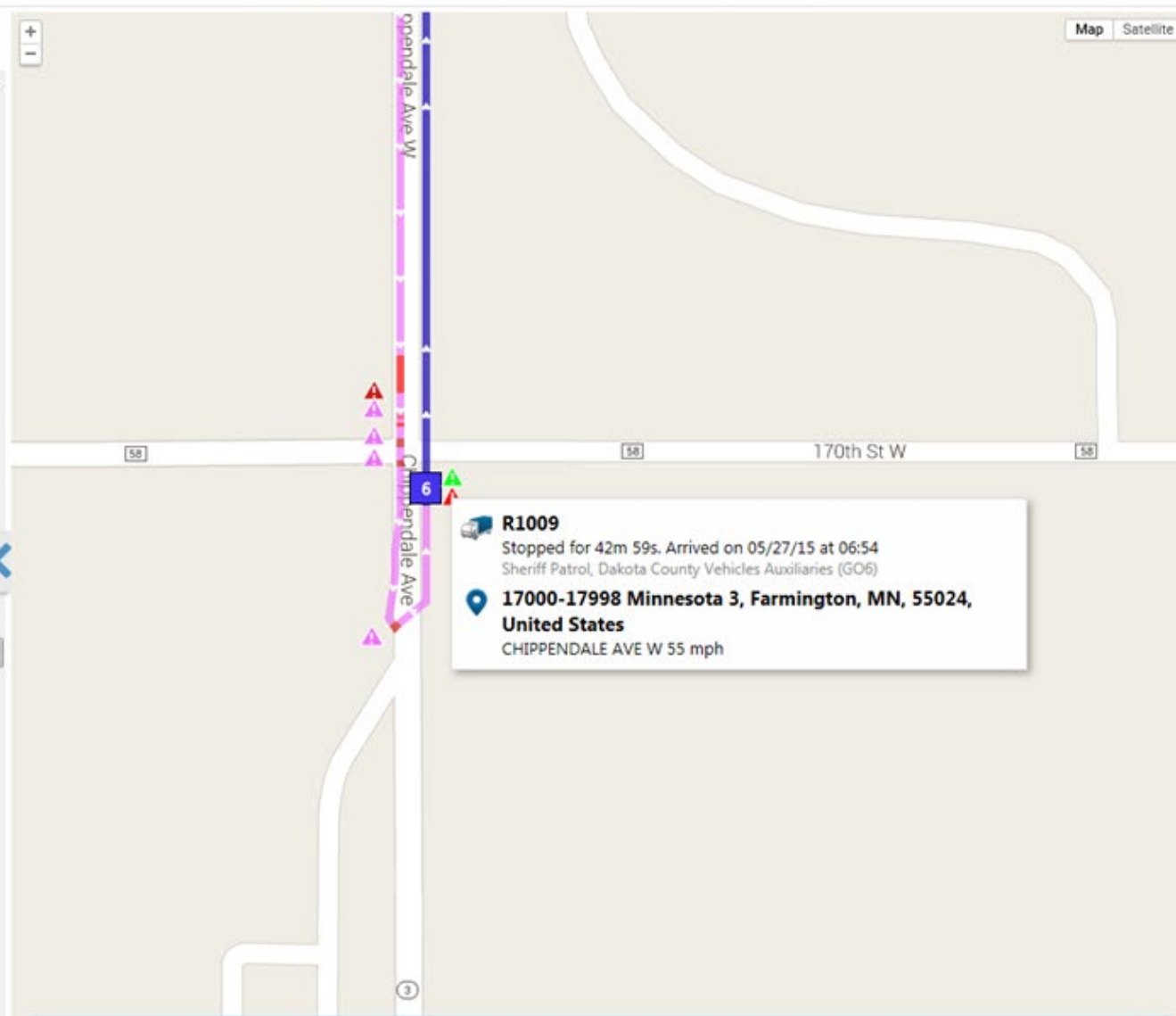
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R1009
 Stopped for 42m 59s. Arrived on 05/27/15 at 06:54
 Sheriff Patrol, Dakota County Vehicles Auxiliaries (GO6)
 17000-17998 Minnesota 3, Farmington, MN, 55024, United States
 CHIPPENDALE AVE W 55 mph

E. RIGHTSIZING

- ✓ **NEEDS VS. WANTS**
- ✓ **90% OF WORK NEEDS**
- ✓ **LOWER OPERATIONAL COSTS**
- ✓ **RENT OR LEASE TO COVER OTHER 10% IF JUSTIFIED**



F. REDUCTIONS

- **LOWER 10% EVALUATION EACH YEAR**
- **SHARE ACROSS USER GROUPS**
- **POOL UNITS CHECKED OUT WHEN NEEDED**
- **SEASONAL USAGE**
- **RENT OR LEASE VS. OWNERSHIP**
- **USER GROUPS PROVIDE JUSTIFICATIONS**
- **CONTROL FLEET CREEP**



G. ADDITIONS

- **JUSTIFICATION**
- **SHARE ASSET ALREADY IN FLEET**
- **FUNDING SOURCES – GRANTS**
- **STAFF TO RUN VEHICLE/EQUIPMENT**
- **RENT OR LEASE**
- **SELECTOR LIST PROCESS**



H. SELECTOR LIST

- **DEVELOPING SPECIFICATIONS**
- **DEMO POSSIBLE VEHICLES/EQUIPMENT**
- **DEVELOP RANKING OF OPTIONS**
- **INVOLVE USER GROUPS IN EVALUATION**
- **LOW PRICE NOT ALWAYS BEST RETURN ON INVESTMENT (ROI)**
- **REVIEW EXAMPLE**



Articulated Front End Loader Selector List 2013

(rank each machine from 1 to 3 in each category with 3 being the highest)

category	criteria ranking (1 to 3)	Loader A (ranking/points)	Loader B (ranking/points)	Loader C (ranking/points)
cab/controls	2	1	2	2
safety/visibility	3	1	3	2
power balance (hydraulic/engine)	1	1	1	3
serviceability	1	2	2	3
warranty	2	3	6	2
fuel efficiency	1	2	2	3
acquisition costs (no tax)	2	1	2	3
trade in offered	1	3	3	2
Total Net County Cost (with tax)	3	3	9	2
remarketing (2002 machine value)	2	3	6	2
Number of this model machine sold in MN in last 12 months	3	3	9	3
TOTAL points (higher is better)			45	52

I. REMARKETING OPTIONS

- 1) TRADE-IN**
- 2) MUNICIPAL AUCTION**
- 3) VENDOR AUCTION**
- 4) ON-LINE AUCTION**

**WORK TO GET APPROVAL TO KEEP PROCEEDS AS PART OF THE FLEET CEP
AND NOT MOVED BACK TO GENERAL FUND**

J. ADMIN/FINANCIAL APPROVAL

- **ESTABLISH TRUST AND UNDERSTANDING OF DECISION MAKING PROCESS**
- **MAKE RECOMMENDATIONS ON FACTS AND NOT FEELINGS**
- **ESTABLISH LONG RANGE GOALS**
(FLEET CEP 5 YEAR PLAN)
- **EXPLAIN IMPACT ON OPERATIONAL BUDGET**
- **BOTTOM LINE DRIVEN DECISIONS**

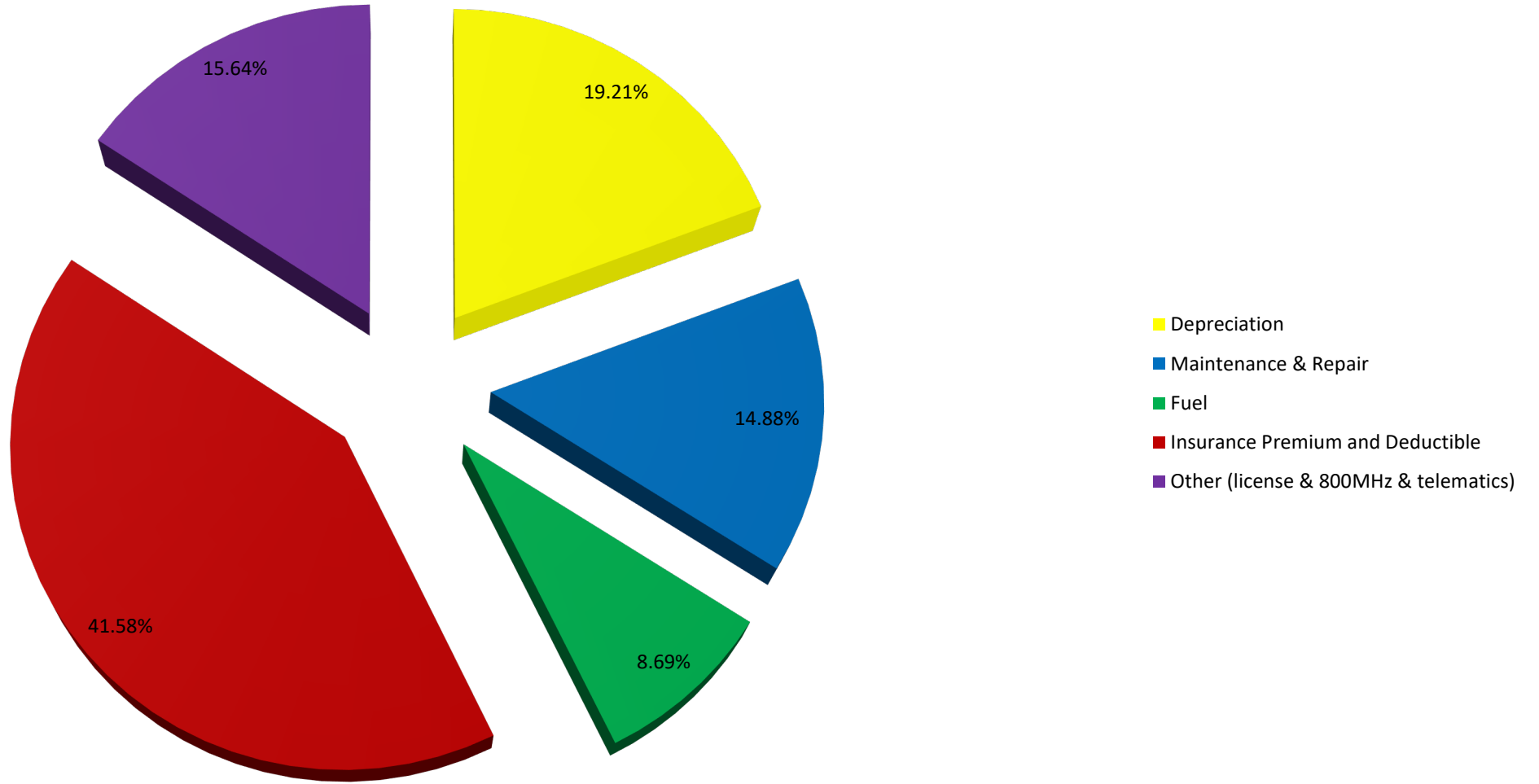


K. BOARD OR COUNCIL APPROVAL

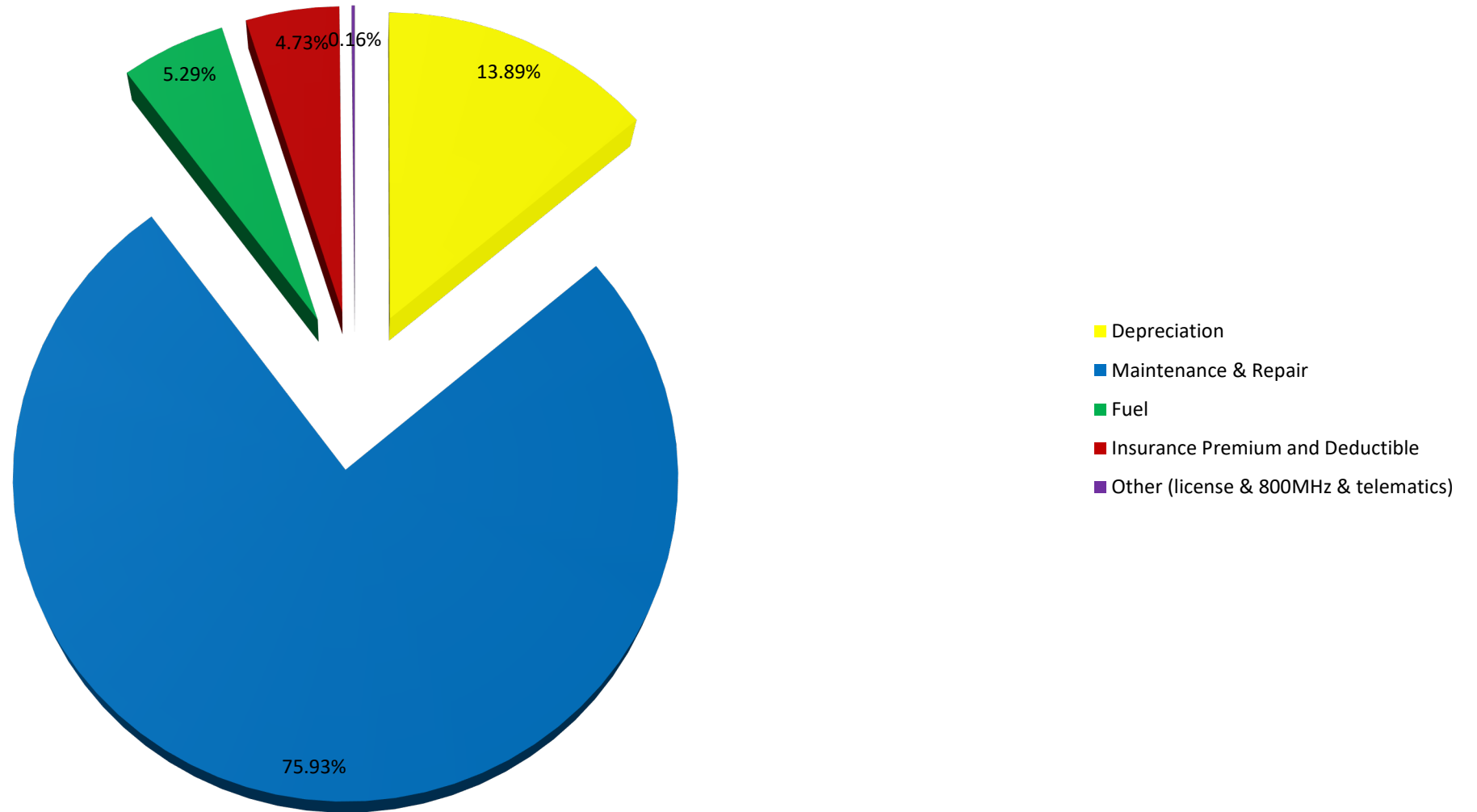
- REINFORCE DECISION MAKING PROCESS**
- USE POINTS CRITERIA IN ALL BOARD/COUNCIL REQUESTS**
- LUMP RECOMMENDATIONS TOGETHER**
- CONNECT TO BOARD/COUNCIL GOALS**
- CONNECT TO LAWS & REGULATIONS**



2020 On Road Costs Per Mile



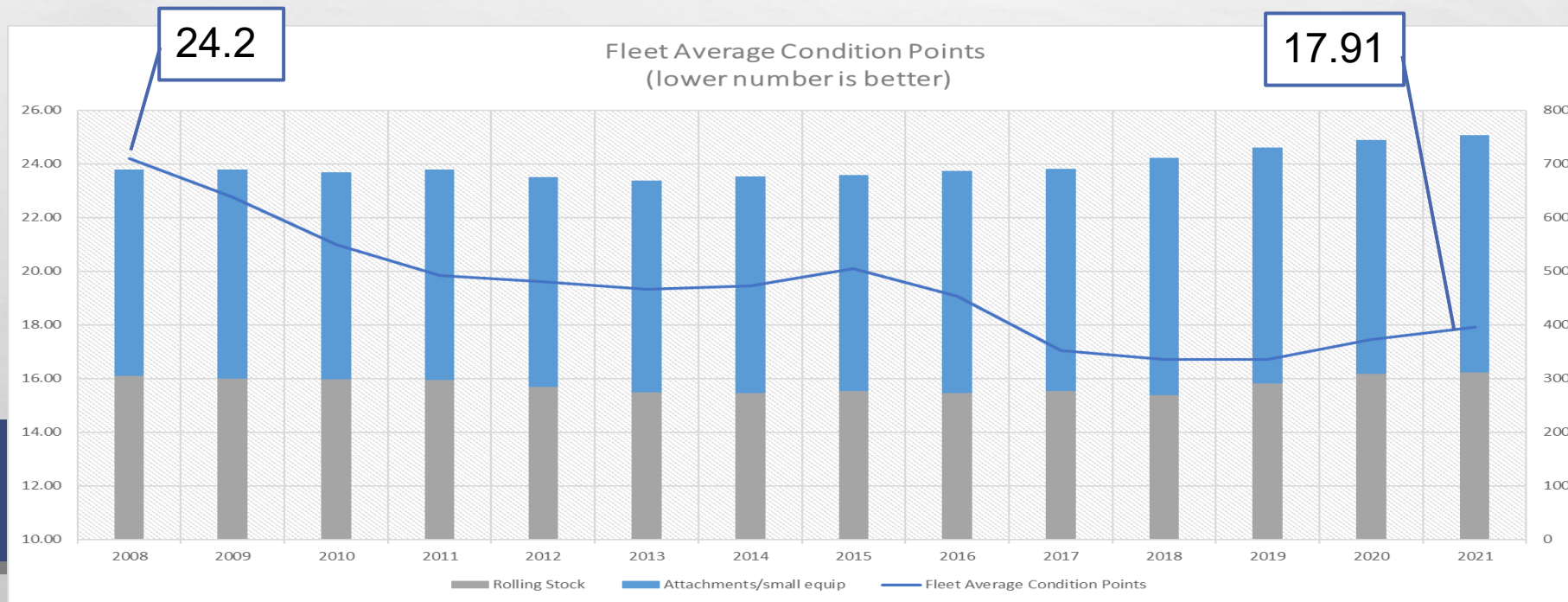
2020 Off Road Costs Per Hour



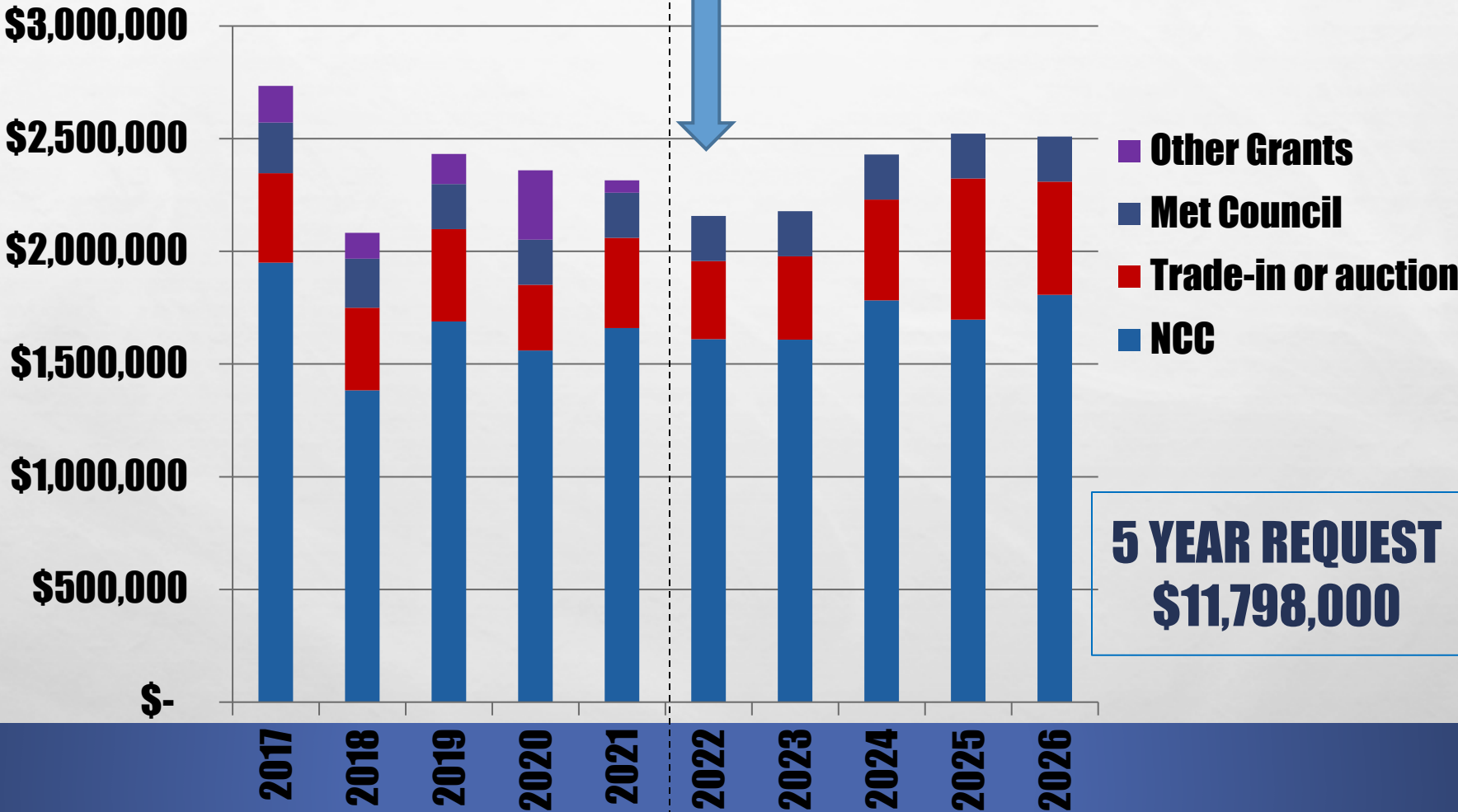
CEP REPLACEMENT POINT RANGES

County Wide Fleet points average is 17.91 (Condition I - Excellent)

- ❑ **Condition I - Under 18 points** **Excellent (51% of fleet)**
- ❑ **Condition II - 19 to 22 points** **Good (22% of fleet)**
- ❑ **Condition III - 23 to 27 points** **Qualifies for replacement (17% of fleet)**
- ❑ **Condition IV - 28 or more points** **Needs immediate consideration (10% of fleet)**



FLEET CEP FUNDING TREND



5 YEAR REQUEST
\$11,798,000

NCC = LEVY, FUND BALANCE & TRANSFERS

FLEET SUSTAINABILITY EFFORTS

- **66% OF SEDANS ARE GAS/ELECTRIC HYBRID**
- **90% OF SQUADS ARE GAS/ELECTRIC HYBRID**
- **25% OF SUV'S ARE GAS/ELECTRIC HYBRID**
- **38% OF RTV'S ARE BATTERY ELECTRIC**
- **SMALL EQUIP THAT ARE BATTERY ELECTRIC**
 - **38% OF CHAINSAWS**
 - **67% OF TRIMMERS**
 - **65% OF AIR BLOWERS**
 - **100% OF SNOW BLOWERS**
 - **53% OF PUSH MOWERS**
- **PICKUPS WERE 100% ¾ TON**
 - **46% COMPACT**
 - **14% ½ TON**
 - **40% ¾ TON**



From 2005 Baseline

- **32% improvement in MPG**
- **29% reduction in GHG emissions**



- ✓ **BUDGET TRENDS (\$1.7 MILLION TO \$2.7 MILLION)**
- ✓ **158 REDUCTIONS - \$2.9 MILLION**
- ✓ **63 RIGHT SIZING - \$299,000**
- ✓ **163 ADDITIONS - \$4.3 MILLION (58% GRANT FUNDS)**
- ✓ **31% INCREASE IN AVERAGE MILES PER GALLON**
- ✓ **34% REDUCTION IN GREEN HOUSE GAS EMISSIONS**
- ✓ **FLEET COUNCIL – WAS MONTHLY – NOW QUARTERLY**
- ✓ **STANDARDIZATION OF ACQUISITION & COMMISSIONING**
- ✓ **ADMINISTRATION/FINANCIAL SERVICES - ONE MEETING**
- ✓ **COUNTY BOARD - ONE PRESENTATION OF 5 YEAR PLAN**
- ✓ **ALL DEPARTMENTS UNDERSTAND THAT POINTS CRITERIA IS USED TO PRIORITIZE REQUESTS**

RESULTS **(2005 TO** **PRESENT)**



THANK YOU!

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