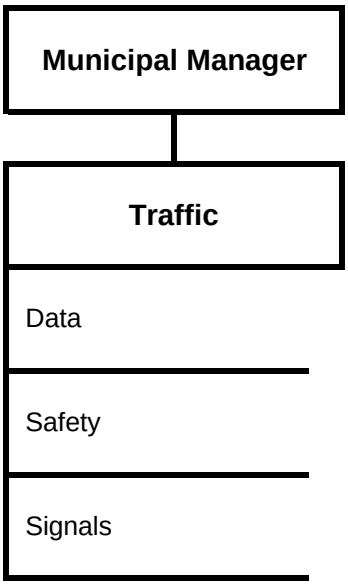
# Traffic Engineering

# Traffic Engineering

**Description**
The Traffic Engineering Department promotes and ensures safe and efficient transportation. Responsibilities encompass the day-to-day operation of Anchorage's traffic signals and street signs. The Traffic Engineering Department provides services that move people and goods on city roads and pedestrian systems. We focus on addressing neighborhood traffic concerns and operations that maximize public safety.

**Department Goals that Contribute to Achieving the Mayor's Mission:**

**Administration – Make city government more efficient, accessible, transparent, and responsive**

- Timely investigation and response to community traffic inquiries.
- Traffic operation improvements that maximize transportation safety and system efficiency.

**Economy – Build a city that attracts and retains a talented workforce, is hospitable to diverse entrepreneurs, small business and established companies, and provides a strong environment for economic growth**

- Continuous improvement in the safe and efficient movement of people and goods.

# Traffic Engineering
# Department Summary

| | 2019 Actuals | 2020 Revised | 2021 Proposed | 21 v 20 % Chg |
|---|---|---|---|---|
| **Direct Cost by Division** | | | | |
| TR Traffic Engineering | 5,575,997 | 5,906,691 | 6,206,330 | 5.07% |
| **Direct Cost Total** | **5,575,997** | **5,906,691** | **6,206,330** | **5.07%** |
| **Intragovernmental Charges** | | | | |
| Charges by/to Other Departments | 1,751,916 | 1,534,073 | 1,627,368 | 6.08% |
| **Function Cost Total** | **7,327,912** | **7,440,764** | **7,833,698** | **5.28%** |
| Program Generated Revenue | (1,676,795) | (1,527,640) | (1,529,640) | 0.13% |
| **Net Cost Total** | **5,651,117** | **5,913,124** | **6,304,058** | **6.61%** |
| **Direct Cost by Category** | | | | |
| Salaries and Benefits | 4,506,994 | 4,673,028 | 4,866,044 | 4.13% |
| Supplies | 542,740 | 764,766 | 774,389 | 1.26% |
| Travel | - | - | 5,360 | 100.00% |
| Contractual/OtherServices | 484,059 | 349,193 | 371,543 | 6.40% |
| Debt Service | - | 94,624 | 163,914 | 73.23% |
| Equipment, Furnishings | 42,205 | 25,080 | 25,080 | - |
| **Direct Cost Total** | **5,575,997** | **5,906,691** | **6,206,330** | **5.07%** |
| **Position Summary as Budgeted** | | | | |
| Full-Time | 27 | 28 | 28 | - |
| Part-Time | 4 | 4 | 4 | - |
| **Position Total** | **31** | **32** | **32** | **-** |

# Traffic Engineering
# Reconciliation from 2020 Revised Budget to 2021 Proposed Budget

| | Direct Costs | Positions FT | PT | Seas/T |
|---|---|---|---|---|
| **2020 Revised Budget** | 5,906,691 | 28 | - | 4 |
| **2020 One-Time Requirements** | | | | |
| - Reverse 2020 1Q one-time fuel reduction | 14,473 | - | - | - |
| - Reverse 2020 1Q one-time travel reduction | 5,360 | - | - | - |
| - Reverse 2020 1Q one-time keep Municipal Engineer and Senior Electronic Technician positions vacant half year | 171,248 | - | - | - |
| **Debt Service Changes** | | | | |
| - General Obligation (GO) Bonds | 69,290 | - | - | - |
| **Changes in Existing Programs/Funding for 2021** | | | | |
| - Salaries and benefits adjustments | 27,408 | - | - | - |
| - Overtime alignment - net 0 adjustment of the overtime budget into the accounts that the costs will actually post to | (74,487) | - | - | - |
| | 74,487 | - | - | - |
| **2021 Continuation Level** | **6,194,470** | **28** | **-** | **4** |
| **2021 Proposed Budget Changes** | | | | |
| - Voter Approved Bond O&M - 2020 Bond Proposition 3, AO 2020-6 | 17,500 | - | - | - |
| - Non-Represented pay scales to stay flat from 2020 | (5,640) | - | - | - |
| **2021 Proposed Budget** | **6,206,330** | **28** | **-** | **4** |

# Traffic Engineering
# Division Summary
## TR Traffic Engineering

(Fund Center # 788000, 789000, 781000, 787000, 785000, 786000, 781079)

| | 2019 Actuals | 2020 Revised | 2021 Proposed | 21 v 20 % Chg |
|---|---|---|---|---|
| **Direct Cost by Category** | | | | |
| Salaries and Benefits | 4,506,994 | 4,673,028 | 4,866,044 | 4.13% |
| Supplies | 542,740 | 764,766 | 774,389 | 1.26% |
| Travel | - | - | 5,360 | 100.00% |
| Contractual/Other Services | 484,059 | 349,193 | 371,543 | 6.40% |
| Equipment, Furnishings | 42,205 | 25,080 | 25,080 | - |
| **Manageable Direct Cost Total** | **5,575,997** | **5,812,067** | **6,042,416** | **3.96%** |
| Debt Service | - | 94,624 | 163,914 | 73.23% |
| Depreciation/Amortization | - | - | - | - |
| **Non-Manageable Direct Cost Total** | **-** | **94,624** | **163,914** | **73.23%** |
| **Direct Cost Total** | **5,575,997** | **5,906,691** | **6,206,330** | **-** |
| **Intragovernmental Charges** | | | | |
| Charges by/to Other Departments | 1,751,916 | 1,534,073 | 1,627,368 | 6.08% |
| **Function Cost Total** | **7,327,912** | **7,440,764** | **7,833,698** | **5.28%** |
| **Program Generated Revenue by Fund** | | | | |
| Fund 101000 - Areawide General | 1,676,795 | 1,527,640 | 1,529,640 | 0.13% |
| **Program Generated Revenue Total** | **1,676,795** | **1,527,640** | **1,529,640** | **0.13%** |
| **Net Cost Total** | **5,651,117** | **5,913,124** | **6,304,058** | **6.61%** |
| **Position Summary as Budgeted** | | | | |
| Full-Time | 27 | 28 | 28 | - |
| Part-Time | 4 | 4 | 4 | - |
| **Position Total** | **31** | **32** | **32** | **-** |

# Traffic Engineering
# Division Detail
## TR Traffic Engineering

(Fund Center # 788000, 789000, 781000, 787000, 785000, 786000, 781079)

| | 2019 Actuals | 2020 Revised | 2021 Proposed | 21 v 20 % Chg |
|---|---|---|---|---|
| **Direct Cost by Category** | | | | |
| Salaries and Benefits | 4,506,994 | 4,673,028 | 4,866,044 | 4.13% |
| Supplies | 542,740 | 764,766 | 774,389 | 1.26% |
| Travel | - | - | 5,360 | 100.00% |
| Contractual/Other Services | 484,059 | 349,193 | 371,543 | 6.40% |
| Equipment, Furnishings | 42,205 | 25,080 | 25,080 | - |
| **Manageable Direct Cost Total** | **5,575,997** | **5,812,067** | **6,042,416** | **3.96%** |
| Debt Service | - | 94,624 | 163,914 | 73.23% |
| **Non-Manageable Direct Cost Total** | **-** | **94,624** | **163,914** | **73.23%** |
| **Direct Cost Total** | **5,575,997** | **5,906,691** | **6,206,330** | **5.07%** |
| **Intragovernmental Charges** | | | | |
| Charges by/to Other Departments | 1,751,916 | 1,534,073 | 1,627,368 | 6.08% |
| **Program Generated Revenue** | | | | |
| 404220 - Miscellaneous Permits | 47,075 | 24,000 | 24,000 | - |
| 405030 - SOA Traffic Signal Reimbursement | 1,449,607 | 1,420,440 | 1,420,440 | - |
| 406030 - Landscape Plan Review Pmt | 6,423 | 12,000 | 12,000 | - |
| 406625 - Reimbursed Cost-NonGrant Funded | 61,806 | 71,100 | 71,100 | - |
| 408090 - Recycle Rebate | - | 100 | 100 | - |
| 408380 - Prior Year Expense Recovery | 14,018 | - | - | - |
| 408390 - Insurance Recoveries | 97,805 | - | 2,000 | 100.00% |
| 408580 - Miscellaneous Revenues | 22 | - | - | - |
| 460070 - MOA Property Sales | 40 | - | - | - |
| **Program Generated Revenue Total** | **1,676,795** | **1,527,640** | **1,529,640** | **0.13%** |
| **Net Cost** | | | | |
| Direct Cost Total | 5,575,997 | 5,906,691 | 6,206,330 | 5.07% |
| Charges by/to Other Departments Total | 1,751,916 | 1,534,073 | 1,627,368 | 6.08% |
| Program Generated Revenue Total | (1,676,795) | (1,527,640) | (1,529,640) | 0.13% |
| **Net Cost Total** | **5,651,117** | **5,913,124** | **6,304,058** | **6.61%** |

**Position Detail as Budgeted**

| | 2019 Revised | | 2020 Revised | | 2021 Proposed | |
|---|---|---|---|---|---|---|
| | Full Time | Part Time | Full Time | Part Time | Full Time | Part Time |
| Assistant Traffic Engineer II | 3 | - | 3 | - | 3 | - |
| Associate Traffic Engineer | 3 | - | 3 | - | 3 | - |
| Electronic Foreman | 1 | - | 1 | - | 1 | - |
| Electronic Tech Leadman | 2 | - | 2 | - | 2 | - |
| Engineering Technician III | 1 | - | 1 | - | 1 | - |
| Engineering Technician IV | 3 | - | 3 | - | 3 | - |
| Municipal Traffic Engineer | 1 | - | 1 | - | 1 | - |
| Paint & Sign Foreman | 1 | - | 1 | - | 1 | - |
| Paint & Sign Leadman | 1 | - | 1 | - | 1 | - |

**Position Detail as Budgeted**

| | 2019 Revised | | 2020 Revised | | 2021 Proposed | |
|---|---|---|---|---|---|---|
| | Full Time | Part Time | Full Time | Part Time | Full Time | Part Time |
| Paint & Sign Tech I | - | 4 | - | 4 | - | 4 |
| Paint & Sign Tech II | 2 | - | 2 | - | 2 | - |
| Paint & Sign Tech III | 2 | - | 2 | - | 2 | - |
| Senior Office Associate | 1 | - | 1 | - | 1 | - |
| Sr Electronic Technician | 5 | - | 6 | - | 6 | - |
| Technical Assistant | 1 | - | 1 | - | 1 | - |
| **Position Detail as Budgeted Total** | **27** | **4** | **28** | **4** | **28** | **4** |

# Traffic Engineering
# Operating Grant and Alternative Funded Programs

| Program | Fund Center | Award Amount | Amount Expended As of 12/31/2020 | Expected Expenditures in 2021 | Expected Balance at End of 2021 | Personnel FT | PT | T | Program Expiration |
|---|---|---|---|---|---|---|---|---|---|
| **AMATS: Traffic Control Signalization 2019-2021**<br>(State Grant - Revenue Pass Thru)<br>Updated signal timing plans to address intersection congestion and improving air quality. | | 650,315 | 461,005 | 189,310 | - | - | - | - | Jun-21 |
| **AMATS: Traffic Counts 2018-2020**<br>(State Grant-Revenue Pass Thru)<br>Collet, input, analyze and perform quality assurance for information pertaining to various pedestrian and vehicular volumes, crashes, and traffic studies. | | 1,440,594 | 949,001 | 491,593 | - | - | - | - | Jun-21 |
| **Total Grant and Alternative Operating Funding for Department** | | **2,090,909** | **1,410,006** | **680,903** | **-** | **-** | **-** | **-** | |
| **Total General Government Operating Direct Cost for Department** | | | | **6,206,330** | | **28** | **4** | **-** | |
| **Total Operating Budget for Department** | | | | **6,887,233** | | **28** | **4** | **-** | |

*Anchorage: Performance. Value. Results*

# Traffic Engineering Department

*Anchorage: Performance. Value. Results.*

## Mission

Promote safe and efficient area-wide transportation that meets the needs of the community and the Anchorage Municipal Traffic Code requirements.

## Direct Services

- Design, operate and maintain the Anchorage Traffic Signal System.
- Design and maintain the Anchorage traffic control devices (signage/markings).
- Provide the necessary transportation data to support the core services.
- Provide traffic safety improvements in accordance with identified traffic safety issues.
- Provide traffic review of development plans and building permits.

## Accomplishment Goals

- Continuous improvement in the safe and efficient movement of people and goods.
- Timely investigation and response to community traffic inquiries and permit submittals.
- Traffic operation improvements that maximize transportation safety and system efficiency.

## Performance Measures

Progress in achieving goals shall be measured by:

- Percent of failed signal detectors repaired within 48 hours of notification.
- Percent of damaged stop Signs repaired/replaced within 2 hours of notification.
- Percent of building permits reviewed within 10 working days of submittal.

**Measure #1: Percent of failed signal detectors repaired within 48 hours of notification**

**Type**

Safety

**Accomplishment Goal Supported**

Maintain traffic signal efficiency and roadway capacity by ensuring that traffic signals operations are functioning properly within 48 hours 90% of the time.

**Definition**

This measure reports the percentage of failed signal detectors that are repaired within 48 hours of notification of failure.

**Data Collection Method**

The data will be collected by tracking work orders developed through use of a failed signal detector report and reports from outside sources such as APD and the public.

**Frequency**

Monthly

**Measured By**

The data will be collected and maintained by the Electronics Foreman of the Signal Electronics Section in an Excel spreadsheet. The total number of failed signal detector reports and the number of repairs that are performed within 48 hours will be recorded.

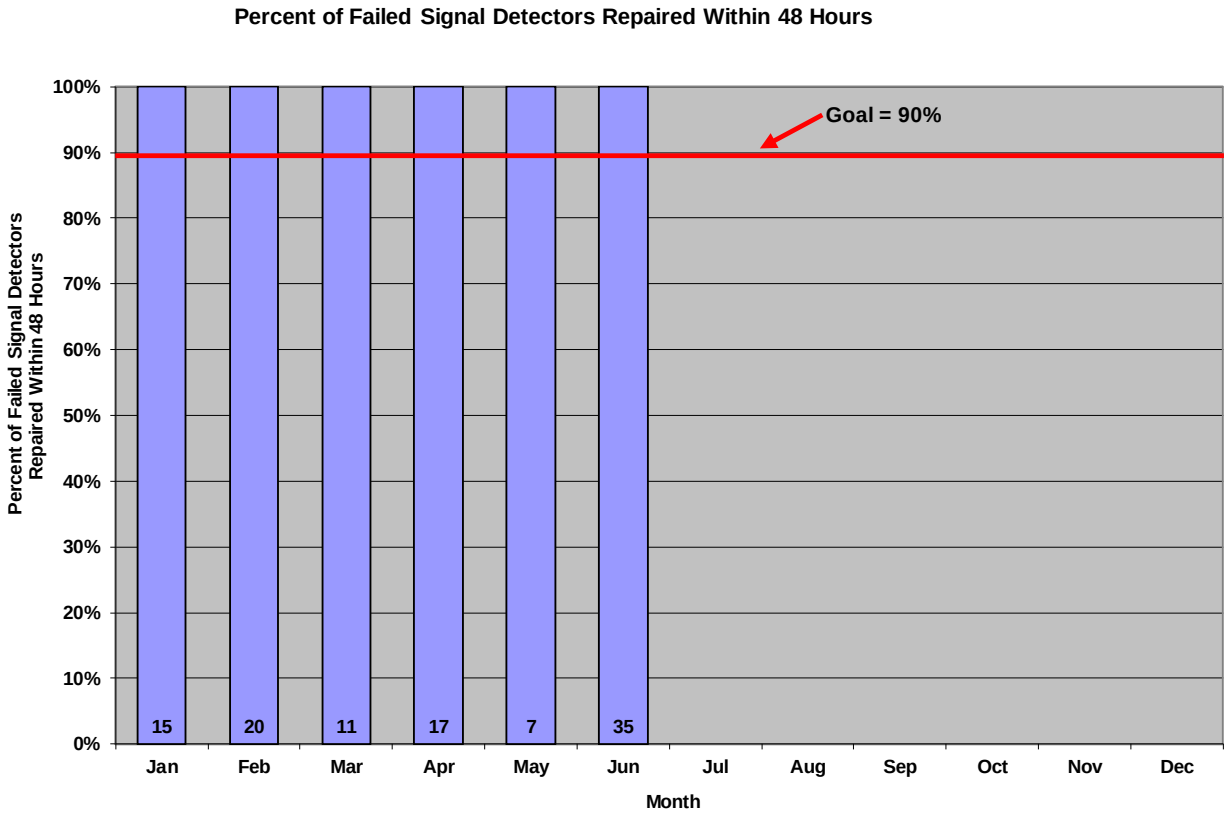
**Reporting**

The data collected by the Traffic Engineer will display the information both numerically and graphically. A status report will be generated monthly.

**Used By**

This information will be used by Traffic to evaluate department/division budget and all involved personnel for tracking purposes, resource management, and decision making at all levels. The information will help the Traffic Engineer assess the adequacy of staffing levels in the Signal Electronics Section to maintain efficient and effective repair of the traffic signal system.

2020


Percent of Failed Signal Detectors Repaired Within 48 Hours
Percent of Failed Signal Detectors Repaired Within 48 Hours
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Goal = 90%
15
20
11
17
7
35
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month

**Measure #2: Percent of damaged stop Signs repaired/replaced within 2 hours of notification**

**Type**

Safety and Efficiency

**Accomplishment Goal Supported**

Ensures punctual responses to damaged stop signs throughout our road system. Goal is 100% of the time.

**Definition**

This measure reports the percentage of signs replaced and the amount of time it takes to get them installed from the time the Traffic Engineering Department is notified.

**Data Collection Method**

The data will be collected spreadsheets and tracking of hours worked by staff.

**Frequency**

Monthly

**Measured By**

The data will be collected and maintained by the Foreman of the Paint and Sign Section in an Excel spreadsheet. The spreadsheet will calculate the percentage of signs repaired/replaced based and the amount of time elapsed from report to completion.

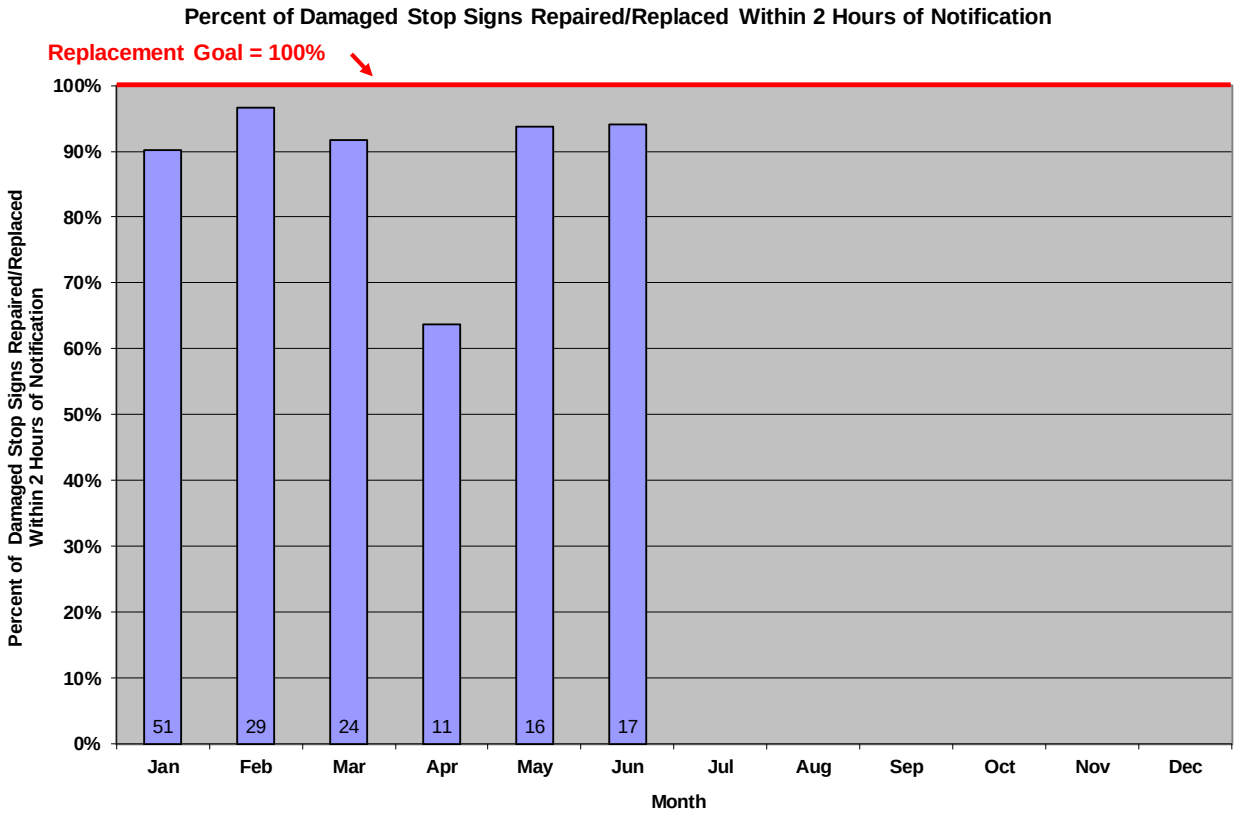
**Reporting**

The data collected in the Excel spreadsheet will display the information both numerically and graphically. A status report will be generated monthly.

**Used By**

This information will be used by Traffic to evaluate their annual department/division budget and all involved personnel for tracking purposes, resource management, and decision making at all levels. The information will help the Traffic Engineer assess the adequacy of staffing levels in the Paint and Sign Section to provide timely repairs.

2020


Percent of Damaged Stop Signs Repaired/Replaced Within 2 Hours of Notification
Replacement Goal = 100%
Percent of Damaged Stop Signs Repaired/Replaced Within 2 Hours of Notification
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
51
29
24
11
16
17
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month

**Measure #3: Percent of building permits reviewed within 10 working days of submittal**

**Type**

Efficiency

**Accomplishment Goal Supported**

Ensures timely reviews and/or approvals of building permits 90% of the time.

**Definition**

This measure reports the percentage of building permit reviews completed by the Traffic Safety Division within 10 working days of submittal.

**Data Collection Method**

The data will be tracked using the Infor/Hanson permitting system.

**Frequency**

Monthly

**Measured By**

The data will be collected and maintained by the administrative staff of the Traffic Engineering Department in an Excel spreadsheet. The spreadsheet will calculate the percentage of building permits that were reviewed within 10 working days.

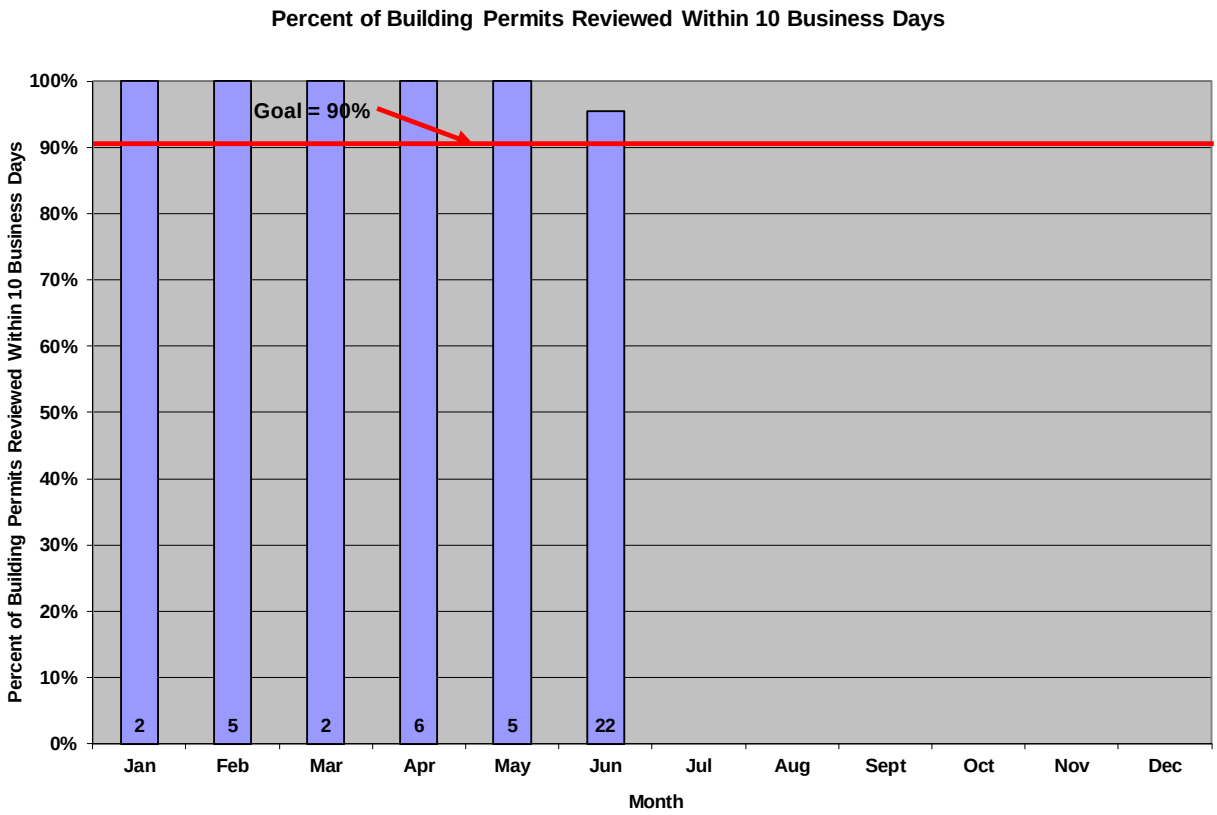
**Reporting**

The data collected in the Excel spreadsheet will display the information both numerically and graphically. A status report will be generated monthly.

**Used By**

This information will be used by Traffic to evaluate their annual department/division budget and all involved personnel for tracking purposes, resource management, and decision making at all levels. The information will help the Traffic Engineer assess the adequacy of staffing levels in the Traffic Safety Division to provide timely reviews of building permits.

2020


Percent of Building Permits Reviewed Within 10 Business Days
Goal = 90%
Percent of Building Permits Reviewed Within 10 Business Days
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2
5
2
6
5
22
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sept
Oct
Nov
Dec
Month

**PVR Measure WC: Managing Workers' Compensation Claims**

Reducing job-related injuries is a priority for the Administration by ensuring safe work conditions and safe practices. By instilling safe work practices, we ensure not only the safety of our employees but reduce the potential for injuries and property damage to the public. The Municipality is self-insured and every injury poses a financial burden on the public and the injured worker's family. It just makes good sense to WORK SAFE.

Results are tracked by monitoring monthly reports issued by the Risk Management Division.