**CITY OF CLOQUET**
**City Council Agenda**
**Thursday, March 5, 2020**
**7:00 p.m.**
**City Hall Council Chambers**

**THERE WILL BE NO WORK SESSION**

1. **Roll Call**

2. **Pledge of Allegiance**

3. Approval of Agenda

   a. Approval of March 5, 2020 Council Agenda

4. **Approval of Council Minutes**

   a. Regular Council minutes from the February 18, 2020 meeting

5. **Public Comments**
   *Please give your name, address, and your concern or comments. Visitors may share their concerns with the City Council on any issue of public business. Each person will have 3 minutes to speak. The Mayor reserves the right to limit an individual or successive individual's presentation if they become redundant, repetitive, irrelevant or overly argumentative. All comments will be taken under advisement by the City Council. No action will be taken at this time.*

6. **Consent Agenda**
   Items in the Consent Agenda are considered routine and will be approved with one motion without discussion/debate. The Mayor will ask if any Council members wish to remove an item. If no items are to be removed, the Mayor will then ask for a motion to approve the Consent Agenda.

   a. Resolution No. 20-13, Authorizing the Payment of Bills and Payroll
   b. 4th of July Event Coordination

7. **Public Hearings**

   a. Now is the time and place for the Public Hearing on the improvement and preparation of plans and specifications for the proposed 2020 improvement of Prospect Avenue Area streets.
      - Resolution No. 20-12, Ordering Improvement and Preparation of Plans and Specifications for the Proposed 2020 Improvement of Prospect Avenue Area Streets

**CITY OF CLOQUET**
**City Council Agenda**
**Thursday, March 5, 2019**
**7:00 p.m.**
**City Hall Council Chambers**

8. **Presentations**

a. Mayor's Proclamation, Recognition and Congratulations to the CEC Girls Hockey Team
b. Police Officer and Detective Oath of Office (J. Demko, E. Baker)

9. **Council Business**

a. Approval of Library Addition Change Order #3, ARS Fire Alarm Proposal and Additional Services Request from Meyer Group
b. Disposal of Surplus Equipment
c. Tandem Axle Trailer Purchase

10. **Closed Meeting**

a. Personnel Discussion

The City Council of the City of Cloquet will meet in closed session pursuant to Minn. Statutes section 13D.05, subd. 2(4)(b). The meeting will take place in the City Hall Council Chambers, 101-14th Street.

Following the closed session, the council will re-convene in open session pursuant to the posted agenda for that date and time and during such open session summarize its conclusion and make any motions.

**Council Comments, Announcements, and Updates**

11. **Adjournment**

Council Chambers, Cloquet, Minnesota
7:00 P.M. February 18, 2020

Regular Meeting

DRAFT

Roll Call

Councilors Present: Carlson, Lamb, Swanson, Kolodge, Langley, Wilkinson

Councilors Absent: Mayor Maki

Pledge of Allegiance

**OATH OF OFFICE**

New City Councilor Chris Swanson took the Oath of Office for the remainder of the Ward 3 term expiring 2022.

**AGENDA**

**MOTION:** Councilor Lamb moved and Councilor Langley seconded the motion to approve the February 18, 2020 agenda. The motion carried unanimously (6-0).

**MINUTES**

**MOTION:** Councilor Swanson moved and Councilor Wilkinson seconded the motion to approve the Work Session and Regular Meeting minutes of February 4, 2020 as presented. The motion carried unanimously (6-0).

**PUBLIC COMMENTS**

There were none.

**CONSENT AGENDA**

**MOTION:** Councilor Lamb moved and Councilor Carlson seconded the motion to adopt the Consent Agenda of February 18, 2020, approving the necessary motions and resolutions. The motion carried unanimously (6-0).

a. Resolution No. 20-09, Authorizing the Payment of Bills
b. Approval of Minnesota Human Trafficking Investigators Task Force Joint Powers Agreement
c. Application for Exempt Permit – Knights of Columbus
d. Appointment to Cable Commission – L. Jaakola

**PUBLIC HEARINGS**

There were none.

**PRESENTATIONS**

There were none.

**DETECTIVE APPOINTMENT**

**MOTION:** Councilor Swanson moved and Councilor Carlson seconded the motion to appoint Corporal Baker to the position of Detective effective February 18, 2020. The motion carried unanimously (6-0).

**POLICE DEPARTMENT PAYROLL SOFTWARE UPDATE**

Interim Police Chief Randall gave Councilor members an update on the police department scheduling and payroll software system. Chief Randall reported that through automating the officer's time sheets, the software is more accurate and efficient. No action required by Council.

**CAT-7 PROGRAMMING DISCUSSION**

City Administer Peterson updated Council members on cable access TV programming discussions with the FDLTCC regarding a partnership to improve both the CAT-7 channel and FDLTCC program offerings. This partnership would give an opportunity for more efficient programming, sharing student staff time and sharing equipment. The president of FDLTCC is currently reviewing details of staffing and responsibilities. No action required by Council.

**4TH OF JULY EVENT COORDINATION**

**MOTION:** Councilor Wilkinson moved and Councilor Lamb seconded the motion to table the approval of increasing the 2019 appropriation from $11,300 to $20,000 annually to reimburse the Cloquet Chamber of Commerce for their work, time and expenses for coordinating the 4th of July celebration. The motion carried unanimously (6-0).

**COUNCIL COMMENTS, ANNOUNCEMENTS, AND UPDATES**

Congratulations to all the Cloquet High School teams who have advanced to state tournaments.

_____

Tim Peterson, City Administrator

CLOQUET

ADMINISTRATIVE OFFICES
101 14th Street Cloquet, MN 55720-1903
Phone: 218.879.3347 Fax: 218.879.6555
www.cloquetmn.gov

# REQUEST FOR COUNCIL ACTION

| | |
|---|---|
| To: | Mayor and City Council |
| From: | Mary Kay Hohensee-Mayer, Assistant Finance Director |
| Reviewed/Approved by: | Tim Peterson, City Administrator |
| Date: | March 5, 2020 |

**ITEM DESCRIPTION:** Payment of Bills and Payroll

**Proposed Action**
Staff recommends the Council move to adopt **RESOLUTION NO. 20-13, A RESOLUTION AUTHORIZING THE PAYMENT OF BILLS AND PAYROLL.**

**Background/Overview**
Statutory Cities are required to have most claims authorized by the city council.

**Policy Objectives**
MN State Statute sections 412.271, Claims and disbursements for Statutory Cities.

**Financial/Budget/Grant Considerations**
See resolution for amounts charged to each individual fund.

**Advisory Committee/Commission Action**
Not applicable.

**Supporting Documents Attached**
- Resolution Authorizing the Payment of Bills and Payroll
- Vendor Summary Report
- Department Summary Report

**CITY OF CLOQUET**
**COUNTY OF CARLTON**
**STATE OF MINNESOTA**

**RESOLUTION NO. 20-13**

**A RESOLUTION AUTHORIZING THE PAYMENT OF BILLS AND PAYROLL**

**WHEREAS,** The City has various bills and payroll each month that require payment.

**NOW, THEREFORE, BE IT RESOLVED, BY THE CITY COUNCIL OF THE CITY OF CLOQUET, MINNESOTA,** That the bills and payroll be paid and charged to the following funds:

| | | | |
|---|---|---|---|
| 101 | General Fund | $ | 439,613.01 |
| 206 | Revolving SCDP (EDA) | | 92.00 |
| 225 | Permanent Improvement | | 1,068.75 |
| 403 | Revolving Capital Projects | | 264,895.73 |
| 405 | City Sales Tax Projects | | 14,880.00 |
| 600 | Water - Lake Superior Waterline | | 45,874.88 |
| 601 | Water - In Town | | 50,792.38 |
| 602 | Sewer Fund | | 109,633.32 |
| 605 | Stormwater Fund | | 799.13 |
| 614 | CAT-7 | | 1,914.81 |
| 701 | Employee Severance Benefits | | 88.50 |
| | TOTAL: | $ | 929,652.51 |

**PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF CLOQUET THIS 5TH DAY OF MARCH, 2020.**

ATTEST: Roger Maki, Mayor

Tim Peterson, City Administrator

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| 111350 | LEXISNEXIS RISK DATA MNGMT INC | 300.00 | 150.00 |
| 112050 | ADVANCED SERVICES INC | 992.00 | 496.00 |
| 112275 | ADVANTAGE EMBLEM INC | 0.00 | 57.80 |
| 116650 | AMERIGAS - 2306 | 668.68 | 468.08 |
| 116950 | AMERIPRIDE SERVICES INC | 2,925.50 | 1,847.35 |
| 117775 | ANIMAL ALLIES HUMANE SOCIETY | 190.00 | 190.00 |
| 121350 | ASPEN MILLS | 0.00 | 1,115.27 |
| 123150 | B W DISTRIBUTING | 0.00 | 441.96 |
| 127400 | OSCAR J BOLDT CONSTRUCTION | 273,304.79 | 264,895.73 |
| 128075 | BRAUN INTERTEC CORP | 0.00 | 13,405.00 |
| 134300 | CARLTON COUNTY RECORDER | 46.00 | 92.00 |
| 134700 | CARLTON COUNTY TREASURER | 0.00 | 16.40 |
| 135675 | VORK ENTERPRISES INC | 370.00 | 925.00 |
| 137310 | CENTURY LINK | 1,580.75 | 240.33 |
| 137340 | CHAMBERLAIN OIL CO., INC. | 3,895.03 | 1,161.11 |
| 139025 | CINTAS | 361.73 | 219.18 |
| 139800 | CLOQUET AREA CHAMBER OF COMMER | 12,569.38 | 3,248.05 |
| 142100 | CLOQUET MAIL STATION | 27.64 | 4.86 |
| 145300 | COMMUNITY PRINTING | 2,078.20 | 210.00 |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 3,205.62 |
| 147600 | EXELON CORPORATION | 4,520.65 | 1,770.77 |
| 150100 | D A L C O | 929.59 | 286.22 |
| 152775 | DELTA DENTAL OF MINNESOTA | 6,098.40 | 3,244.70 |
| 153300 | DIAMOND DRILLING | 0.00 | 186.00 |
| 161675 | EMC NATIONAL LIFE | 3,306.80 | 1,298.50 |
| 165375 | FERGUSON WATERWORKS #2516 | 0.00 | 1,941.27 |
| 166750 | FIRST HOSPITAL LABORATORIES IN | 105.79 | 887.69 |
| 171100 | FRYBERGER, BUCHANAN, SMITH & | 14,557.95 | 2,252.25 |
| 172300 | GARTNER REFRIGERATION COMPANY | 17,984.71 | 247.91 |
| 175600 | DUANE C GRACE & ASSOCIATES | 0.00 | 5,657.50 |
| 175700 | GRAINGER | 80.61 | 42.41 |
| 178700 | H & L MESABI | 0.00 | 1,851.07 |
| 185600 | IACP | 0.00 | 235.00 |
| 198100 | L M C I T | 231,668.00 | 3,142.00 |
| 200750 | LANDMARK ENVIRONMENTAL, LLC | 5,553.65 | 1,068.75 |
| 202100 | LAWSON PRODUCTS INC | 912.85 | 686.02 |
| 202300 | LEAGUE OF MN CITIES | 1,150.40 | 2,760.00 |
| 204250 | LIFTPRO | 133.56 | 233.04 |
| 204500 | LITTLE FALLS MACHINE INC | 0.00 | 1,426.59 |
| 205050 | LOFFLER COMPANIES INC | 41.64 | 95.69 |
| 206800 | MACQUEEN EQUIPMENT INC | 11,738.43 | 2,135.36 |
| 207400 | MANEY INTERNATIONAL INC | 4,711.70 | 121.12 |
| 211300 | MENARDS INC | 256.66 | 44.49 |
| 211400 | MENARDS INC | 490.71 | 63.83 |

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| 211700 | METRO SALES, INC. | 1,677.42 | 113.49 |
| 212400 | MICHAUD DIST INC | 33.00 | 44.00 |
| 212700 | MID-STATE TRUCK SERVICE INC | 0.00 | 386.02 |
| 216400 | MN STATE PATROL, CMV SECTION | 0.00 | 60.00 |
| 218400 | MN CHIEFS OF POLICE ASSOC | 414.50 | 351.00 |
| 220500 | MN DEPT OF HEALTH | 32.00 | 8,910.00 |
| 220925 | MN DRIVERS & VEHICLE SERVICES | 14.25 | 14.25 |
| 223300 | MN POWER | 0.00 | 1,272.30 |
| 224750 | MN STATE TREASURER'S OFFICE | 0.00 | 8.20 |
| 235800 | NORTHLAND AUTO PARTS | 206.00 | 81.86 |
| 236500 | NORTHWOODS POWER EQUIPMENT | 12,910.25 | 5,845.00 |
| 239500 | OLDENBURG ARTS AND CULTURAL | 0.00 | 3,031.00 |
| 244950 | PINE JOURNAL | 0.00 | 561.00 |
| 261750 | SEELYE PLASTICS, INC. | 0.00 | 71.62 |
| 261800 | SEH | 57,362.46 | 12,590.66 |
| 271350 | TAFT STETTINIUS & HOLLISTER | 0.00 | 1,750.00 |
| 271975 | TEAMSTERS JOINT COUNCIL 32 | 65,997.81 | 4,809.21 |
| 278600 | TWIN PORT MAILING | 11,437.14 | 3,402.53 |
| 279100 | U S BANK EQUIPMENT FINANCE | 1,359.85 | 418.71 |
| 281000 | UNITED ELECTRIC COMPANY | 88.28 | 95.04 |
| 284875 | VERIZON WIRELESS | 4,270.27 | 648.74 |
| 285500 | VIKING INDUSTRIAL CENTER | 271.75 | 248.60 |
| 286900 | W L S S D | 159,429.60 | 82,715.00 |
| 287800 | WAL-MART COMMUNITY | 193.93 | 158.51 |
| 288150 | WASTE MANAGEMENT NORTHERN MN | 58.23 | 63.23 |
| R0001284 | OFFICE OF MN IT SERVICES | 0.00 | 74.00 |
| R0001701 | LEADSONLINE | 0.00 | 2,128.00 |
| R0001748 | DULUTH-SPS COMPANIES INC | 0.00 | 44.97 |
| R0001891 | ALICE TRAINING INSTITUTE | 0.00 | 695.00 |
| R0001892 | FBI - LEEDA ATTN: MEMBERSHIP | 0.00 | 50.00 |
| R0001893 | LAW ENFORCEMENT SEMINARS LLC | 0.00 | 350.00 |
| | TOTAL ALL VENDORS: | | 455,059.86 |

City of Cloquet
Vendor Summary Report Reconciliation
Invoices Due On/Before 3/5/2020

| | |
|---|---|
| Bills | 455,059.86 |
| Less: CAFD | 0.00 |
| Less: Library | (617.87) |
| Bills approved | 454,441.99 |
| Other: | |
| Payroll | 480,037.97 |
| Payroll - benefits | (4,827.45) |
| Total Bills and Payroll Approved | 929,652.51 |

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| GENERAL FUND | | | |
| 00 | | | |
| 134700 | CARLTON COUNTY TREASURER | | 16.40 |
| 152775 | DELTA DENTAL OF MINNESOTA | 6,098.40 | 3,156.20 |
| 161675 | EMC NATIONAL LIFE | 3,306.80 | 1,298.50 |
| 224750 | MN STATE TREASURER'S OFFICE | | 8.20 |
| 271975 | TEAMSTERS JOINT COUNCIL 32 | 65,997.81 | 372.75 |
| | | | 4,852.05 |
| 41 | GENERAL GOVERNMENT | | |
| 139025 | CINTAS | 361.73 | 39.98 |
| 145300 | COMMUNITY PRINTING | 2,078.20 | 210.00 |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 408.84 |
| 150100 | D A L C O | 929.59 | 56.95 |
| 166750 | FIRST HOSPITAL LABORATORIES IN | 105.79 | 500.00 |
| 171100 | FRYBERGER, BUCHANAN, SMITH & | 14,557.95 | 2,252.25 |
| 172300 | GARTNER REFRIGERATION COMPANY | 17,984.71 | 247.91 |
| 175600 | DUANE C GRACE & ASSOCIATES | | 5,657.50 |
| 175700 | GRAINGER | 80.61 | 21.20 |
| 198100 | L M C I T | 231,668.00 | 123.00 |
| 212400 | MICHAUD DIST INC | 33.00 | 44.00 |
| 235800 | NORTHLAND AUTO PARTS | 206.00 | 28.59 |
| 244950 | PINE JOURNAL | | 529.12 |
| 278600 | TWIN PORT MAILING | 11,437.14 | 112.35 |
| 279100 | U S BANK EQUIPMENT FINANCE | 1,359.85 | 157.02 |
| 281000 | UNITED ELECTRIC COMPANY | 88.28 | 47.52 |
| 284875 | VERIZON WIRELESS | 4,270.27 | 245.07 |
| 287800 | WAL-MART COMMUNITY | 193.93 | 20.88 |
| | GENERAL GOVERNMENT | | 10,702.18 |
| 42 | PUBLIC SAFETY | | |
| 111350 | LEXISNEXIS RISK DATA MNGMT INC | 300.00 | 150.00 |
| 112275 | ADVANTAGE EMBLEM INC | | 57.80 |
| 117775 | ANIMAL ALLIES HUMANE SOCIETY | 190.00 | 190.00 |
| 121350 | ASPEN MILLS | | 1,115.27 |
| 135675 | VORK ENTERPRISES INC | 370.00 | 925.00 |
| 139025 | CINTAS | 361.73 | 66.70 |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 810.85 |
| 150100 | D A L C O | 929.59 | 56.95 |
| 175700 | GRAINGER | 80.61 | 21.21 |

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| GENERAL FUND | | | |
| 42 | PUBLIC SAFETY | | |
| 185600 | IACP | | 235.00 |
| 198100 | L M C I T | 231,668.00 | 1,474.00 |
| 202300 | LEAGUE OF MN CITIES | 1,150.40 | 1,980.00 |
| 218400 | MN CHIEFS OF POLICE ASSOC | 414.50 | 351.00 |
| 220925 | MN DRIVERS & VEHICLE SERVICES | 14.25 | 14.25 |
| 244950 | PINE JOURNAL | | 31.88 |
| 271975 | TEAMSTERS JOINT COUNCIL 32 | 65,997.81 | 4,436.46 |
| 278600 | TWIN PORT MAILING | 11,437.14 | 32.10 |
| 279100 | U S BANK EQUIPMENT FINANCE | 1,359.85 | 209.36 |
| 281000 | UNITED ELECTRIC COMPANY | 88.28 | 47.52 |
| R0001284 | OFFICE OF MN IT SERVICES | | 74.00 |
| R0001701 | LEADSONLINE | | 2,128.00 |
| R0001891 | ALICE TRAINING INSTITUTE | | 695.00 |
| R0001892 | FBI - LEEDA ATTN: MEMBERSHIP | | 50.00 |
| R0001893 | LAW ENFORCEMENT SEMINARS LLC | | 350.00 |
| | PUBLIC SAFETY | | 15,502.35 |
| 43 | PUBLIC WORKS | | |
| 123150 | B W DISTRIBUTING | | 220.98 |
| 137340 | CHAMBERLAIN OIL CO., INC. | 3,895.03 | 1,161.11 |
| 139025 | CINTAS | 361.73 | 29.02 |
| 142100 | CLOQUET MAIL STATION | 27.64 | 4.86 |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 410.27 |
| 150100 | D A L C O | 929.59 | 53.22 |
| 153300 | DIAMOND DRILLING | | 186.00 |
| 166750 | FIRST HOSPITAL LABORATORIES IN | 105.79 | 225.52 |
| 178700 | H & L MESABI | | 1,851.07 |
| 198100 | L M C I T | 231,668.00 | 779.00 |
| 202100 | LAWSON PRODUCTS INC | 912.85 | 343.01 |
| 204500 | LITTLE FALLS MACHINE INC | | 1,426.59 |
| 205050 | LOFFLER COMPANIES INC | 41.64 | 19.14 |
| 206800 | MACQUEEN EQUIPMENT INC | 11,738.43 | 1,731.36 |
| 207400 | MANEY INTERNATIONAL INC | 4,711.70 | 121.12 |
| 211400 | MENARDS INC | 490.71 | 28.97 |
| 211700 | METRO SALES, INC. | 1,677.42 | 37.84 |
| 212700 | MID-STATE TRUCK SERVICE INC | | 386.02 |
| 216400 | MN STATE PATROL, CMV SECTION | | 60.00 |
| 235800 | NORTHLAND AUTO PARTS | 206.00 | 53.27 |
| 236500 | NORTHWOODS POWER EQUIPMENT | 12,910.25 | 5,845.00 |
| 278600 | TWIN PORT MAILING | 11,437.14 | 32.10 |
| 284875 | VERIZON WIRELESS | 4,270.27 | 188.61 |
| | PUBLIC WORKS | | 15,194.08 |

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| GENERAL FUND | | | |
| 45 | CULTURE AND RECREATION | | |
| 112050 | ADVANCED SERVICES INC | 992.00 | 496.00 |
| 116650 | AMERIGAS - 2306 | 668.68 | 468.08 |
| 116950 | AMERIPRIDE SERVICES INC | 2,925.50 | 1,847.35 |
| 137310 | CENTURY LINK | 1,580.75 | 174.00 |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 423.80 |
| 147600 | EXELON CORPORATION | 4,520.65 | 1,770.77 |
| 150100 | D A L C O | 929.59 | 53.22 |
| 165375 | FERGUSON WATERWORKS #2516 | | 1,870.27 |
| 166750 | FIRST HOSPITAL LABORATORIES IN | 105.79 | 56.38 |
| 198100 | L M C I T | 231,668.00 | 124.00 |
| 211300 | MENARDS INC | 256.66 | 44.49 |
| 211400 | MENARDS INC | 490.71 | 24.99 |
| 223300 | MN POWER | | 1,272.30 |
| 285500 | VIKING INDUSTRIAL CENTER | 271.75 | 248.60 |
| R0001748 | DULUTH-SPS COMPANIES INC | | 44.97 |
| | CULTURE AND RECREATION | | 8,919.22 |
| 46 | COMMUNITY DEVELOPMENT | | |
| 139800 | CLOQUET AREA CHAMBER OF COMMER | 12,569.38 | 3,248.05 |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 58.40 |
| 198100 | L M C I T | 231,668.00 | 10.00 |
| 239500 | OLDENBURG ARTS AND CULTURAL | | 3,031.00 |
| 271350 | TAFT STETTINIUS & HOLLISTER | | 1,750.00 |
| 278600 | TWIN PORT MAILING | 11,437.14 | 16.05 |
| 279100 | U S BANK EQUIPMENT FINANCE | 1,359.85 | 52.33 |
| | COMMUNITY DEVELOPMENT | | 8,165.83 |
| REVOLVING SCDP (EDA) | | | |
| 46 | COMMUNITY DEVELOPMENT | | |
| 134300 | CARLTON COUNTY RECORDER | 46.00 | 92.00 |
| | COMMUNITY DEVELOPMENT | | 92.00 |
| LIBRARY FUND | | | |
| 45 | CULTURE AND RECREATION | | |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 507.99 |

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| LIBRARY FUND | | | |
| 45 | CULTURE AND RECREATION | | |
| 150100 | D A L C O | 929.59 | 65.88 |
| 198100 | L M C I T | 231,668.00 | 44.00 |
| | CULTURE AND RECREATION | | 617.87 |
| PERMANENT IMPROVEMENT | | | |
| 56 | CONSTRUCTION & MAINTENANCE | | |
| 200750 | LANDMARK ENVIRONMENTAL, LLC | 5,553.65 | 1,068.75 |
| | CONSTRUCTION & MAINTENANCE | | 1,068.75 |
| CAPITAL PROJECTS - REVOLVING | | | |
| 00 | | | |
| 127400 | OSCAR J BOLDT CONSTRUCTION | 273,304.79 | -13,951.37 |
| | | | -13,951.37 |
| 81 | SPECIAL PROJECTS | | |
| 127400 | OSCAR J BOLDT CONSTRUCTION | 273,304.79 | 278,847.10 |
| | SPECIAL PROJECTS | | 278,847.10 |
| CITY SALES TAX CAPITAL | | | |
| 81 | SPECIAL PROJECTS | | |
| 128075 | BRAUN INTERTEC CORP | | 13,405.00 |
| 261800 | SEH | 57,362.46 | 1,475.00 |
| | SPECIAL PROJECTS | | 14,880.00 |
| WATER - LAKE SUPERIOR WATERLIN | | | |
| 51 | STATION 2 | | |
| 137310 | CENTURY LINK | 1,580.75 | 66.33 |
| 139025 | CINTAS | 361.73 | 54.46 |
| 198100 | L M C I T | 231,668.00 | 197.00 |

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| WATER - LAKE SUPERIOR WATERLIN | | | |
| 51 | STATION 2 | | |
| 211400 | MENARDS INC | 490.71 | 2.88 |
| 287800 | WAL-MART COMMUNITY | 193.93 | 57.50 |
| 288150 | WASTE MANAGEMENT NORTHERN MN | 58.23 | 63.23 |
| | STATION 2 | | 441.40 |
| 52 | LAKE SUPERIOR WATERLINE | | |
| 165375 | FERGUSON WATERWORKS #2516 | | 71.00 |
| 198100 | L M C I T | 231,668.00 | 69.00 |
| 211400 | MENARDS INC | 490.71 | 6.99 |
| 284875 | VERIZON WIRELESS | 4,270.27 | 70.02 |
| | LAKE SUPERIOR WATERLINE | | 217.01 |
| 57 | ADMINISTRATION | | |
| 198100 | L M C I T | 231,668.00 | 4.00 |
| 205050 | LOFFLER COMPANIES INC | 41.64 | 19.14 |
| | ADMINISTRATION | | 23.14 |
| WATER - IN TOWN SYSTEM | | | |
| 49 | CLOQUET | | |
| 123150 | B W DISTRIBUTING | | 132.59 |
| 139025 | CINTAS | 361.73 | 17.41 |
| 166750 | FIRST HOSPITAL LABORATORIES IN | 105.79 | 105.79 |
| 198100 | L M C I T | 231,668.00 | 100.00 |
| 202100 | LAWSON PRODUCTS INC | 912.85 | 205.81 |
| 204250 | LIFTPRO | 133.56 | 233.04 |
| 220500 | MN DEPT OF HEALTH | 32.00 | 8,910.00 |
| 261750 | SEELYE PLASTICS, INC. | | 71.62 |
| 261800 | SEH | 57,362.46 | 11,115.66 |
| 284875 | VERIZON WIRELESS | 4,270.27 | 70.02 |
| 287800 | WAL-MART COMMUNITY | 193.93 | 80.13 |
| | CLOQUET | | 21,042.07 |
| 54 | BILLING & COLLECTION | | |

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| WATER - IN TOWN SYSTEM | | | |
| 54 | BILLING & COLLECTION | | |
| 198100 | L M C I T | 231,668.00 | 9.00 |
| 278600 | TWIN PORT MAILING | 11,437.14 | 3,145.73 |
| | BILLING & COLLECTION | | 3,154.73 |
| 57 | ADMINISTRATION & GENERAL | | |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 351.28 |
| 198100 | L M C I T | 231,668.00 | 7.00 |
| 205050 | LOFFLER COMPANIES INC | 41.64 | 19.14 |
| 211700 | METRO SALES, INC. | 1,677.42 | 37.83 |
| 278600 | TWIN PORT MAILING | 11,437.14 | 32.10 |
| | ADMINISTRATION & GENERAL | | 447.35 |
| ENTERPRISE FUND - SEWER | | | |
| 00 | | | |
| 286900 | W L S S D | 159,429.60 | -28.00 |
| | | | -28.00 |
| 55 | SANITARY SEWER | | |
| 123150 | B W DISTRIBUTING | | 88.39 |
| 139025 | CINTAS | 361.73 | 11.61 |
| 198100 | L M C I T | 231,668.00 | 182.00 |
| 202100 | LAWSON PRODUCTS INC | 912.85 | 137.20 |
| 206800 | MACQUEEN EQUIPMENT INC | 11,738.43 | 404.00 |
| 284875 | VERIZON WIRELESS | 4,270.27 | 75.02 |
| 286900 | W L S S D | 159,429.60 | 82,743.00 |
| | SANITARY SEWER | | 83,641.22 |
| 57 | ADMINISTRATION & GENERAL | | |
| 147050 | CONSOLIDATED TELEPHONE COMPANY | 6,694.47 | 234.19 |
| 198100 | L M C I T | 231,668.00 | 15.00 |
| 205050 | LOFFLER COMPANIES INC | 41.64 | 19.14 |
| 211700 | METRO SALES, INC. | 1,677.42 | 37.82 |

INVOICES DUE ON/BEFORE 03/05/2020

| VENDOR # | NAME | PAID THIS FISCAL YEAR | AMOUNT DUE |
|---|---|---|---|
| ENTERPRISE FUND - SEWER | | | |
| 57 | ADMINISTRATION & GENERAL | | |
| 278600 | TWIN PORT MAILING | 11,437.14 | 32.10 |
| | ADMINISTRATION & GENERAL | | 338.25 |
| STORM WATER UTILITY | | | |
| 57 | ADMINISTRATION & GENERAL | | |
| 202300 | LEAGUE OF MN CITIES | 1,150.40 | 780.00 |
| 205050 | LOFFLER COMPANIES INC | 41.64 | 19.13 |
| | ADMINISTRATION & GENERAL | | 799.13 |
| CABLE TELEVISION | | | |
| 45 | CULTURE AND RECREATION | | |
| 198100 | L M C I T | 231,668.00 | 5.00 |
| | CULTURE AND RECREATION | | 5.00 |
| EMPLOYEE SEVERANCE | | | |
| 45 | EMPLOYEE VACATION & SICK | | |
| 152775 | DELTA DENTAL OF MINNESOTA | 6,098.40 | 88.50 |
| | EMPLOYEE VACATION & SICK | | 88.50 |
| | TOTAL ALL DEPARTMENTS | | 455,059.86 |

CLOQUET

ADMINISTRATIVE OFFICES
101 14th Street Cloquet, MN 55720-1903
Phone: 218.879.3347 Fax: 218.879.6555
www.cloquetmn.gov

# REQUEST FOR COUNCIL ACTION

To: Mayor and City Council
From: Tim Peterson, City Administrator TCP
Date: March 5, 2020

**ITEM DESCRIPTION:** 4th of July Event Coordination

**Proposed Action**
Staff recommends the City Council move to increase its 2020 appropriation from $11,300 to $15,000 annually to reimburse the Cloquet Chamber of Commerce for their work, time and expenses toward making Cloquet's 4th of July event the City and regional success it is.

**Background/Overview**
At the City Council Work Session on November 7, 2019, the Chamber of Commerce presented a review of this past year's events including 4th of July and Home for the Holidays celebrations. As a part of this presentation, Alyson Leno informed the Council that she and the Chamber would no longer be able to coordinate these celebrations beginning in 2020. The events themselves had started out as volunteer group organized and executed events that were in the process of failing when the City and Chamber stepped in to provide coordination activities and in-kind assistance. At this point, the events have grown so much that the effort required to continue to manage them has become burdensome.

City staff met with the Chamber to discuss the possibility of them continuing to coordinate the events. The Chamber agreed that the 4th of July event does meet their mission of bringing people to our community enough that they would be willing to continue their role as coordinator, with continued support of the City and a volunteer committee. They indicated that expenses, with the overall growth of the event over the past few years, necessitates additional reimbursement from the City up to $15,000 per year.

We also discussed the Home for the Holidays event. The Chamber staff believe this event seemed further away from the mission of the Chamber of Commerce. They are still willing to be a liaison to a new group coordinating the event, but they no longer are willing to take the lead.

The Chamber, with City staff, intend to meet other local groups to attempt to find a new sponsor for this event.

**Policy Objectives**
The objective of community celebrations is to invite current community members, and visitors, to celebrate and take pride in their community.

**Financial/Budget/Grant Considerations**
In the 2020 budget, $9,000 was allocated for these events. In 2019, expenditures were $11,300. This increase in cost would come from reserves for 2020 and be budgeted accurately in 2021.

CLOQUET

**DEPARTMENT OF PUBLIC WORKS**

101 14th Street; Cloquet, MN 55720
Phone: (218) 879-6758 Fax: (218) 879-6555
Street - Water - Sewer – Engineering - Park
www.cloquetmn.gov

# REQUEST FOR COUNCIL ACTION

| | |
|---|---|
| To: | Mayor and City Council |
| From: | John Anderson, Assistant City Engineer |
| Reviewed by: | Tim Peterson, City Administrator TCP |
| Date: | March 5, 2020 |

**ITEM DESCRIPTION:** Resolution Ordering Improvement and Preparation of Plans and Specifications on the Streets in the Prospect Avenue Area

**Proposed Action**

Staff recommends the City Council move to adopt **RESOLUTION 20-12, ORDERING IMPROVEMENT AND PREPARATION OF PLANS AND SPECIFICATIONS FOR THE PROPOSED 2020 IMPROVEMENT OF PROSPECT AVENUE AREA STREETS.**

**Background/Overview**

As part of the City's 5-Year Capital Improvement Program (CIP) and approved budget, plans are proposed to reconstruct the following streets:

- Prospect Avenue – 14th Street to 18th Street
- Prospect Avenue – 20th Street to 22nd Street
- 20th Street – Prospect Avenue to Selmser Avenue
- 21st Street – Selmser Avenue to Dead end
- Kelly Avenue – 21st Street to 22nd Street
- 21st Street – Kelly Avenue to Prospect Avenue
- 20th Street – Prospect Avenue to Fairview Avenue
- Fairview Avenue – 18th Street to 20th Street

In general, the existing infrastructure in this area is considered to be in very poor to failed condition. Some of the issues documented in recent years include sewer back-ups, localized flooding, and a failed pavement surface. While a quick drive down the street leaves little doubt about the need for improvements, a full evaluation of the existing conditions and proposed actions are documented in the attached feasibility study.

Preliminary plans for the project have been prepared and in accordance with MN Statutes Chapter 429, the City Council is required to hold a Public Hearing on the proposed improvement. During this meeting, the Council will take formal public input to assist them in their decision as to how the City should proceed. In accordance with Chapter 429 the City Council must order the improvement by a 4/5 vote in order to move forward with the project.

One topic of note that staff has received feedback on is the need for sidewalk along Prospect Avenue. The safe routes to school plan developed jointly between the City of Cloquet, Carlton County and the Cloquet School District calls for a sidewalk to be provided along Prospect Avenue from 14th Street to 22nd

Street, Carlton County has included a project in their Capital improvement plan to construct a connecting sidewalk along 22nd Street from Prospect Avenue to Washington Avenue, which is also identified in the Safe Routes to School Plan. Staff has received feedback from residents in opposition of adding sidewalk along Prospect Avenue. Attached is an email received from one resident who lives along Prospect Avenue.

**Policy Objectives**

To advance proposed capital improvement projects, but prior to approval affected property owners shall be provided an opportunity to make comments in reference to the proposed improvement in accordance with State Statutes. While not required by state statute, a neighborhood meeting was held on January 23rd, 2020. A number of the residents that attended that meeting voiced a desire to have sidewalk along 20th Street from Prospect Avenue to Selmser Avenue at a minimum on one side or the other. Also, a number of residents questioned the need for a sidewalk along Prospect Avenue.

**Financial/Budget Grant/ Considerations**

The approved 2020 budget includes an estimated cost for this project of $3,780,000. The breakdown of funding sources for the project are as follows:

| | |
|---|---|
| Sales Tax | $ 1,600,000 |
| Sanitary Sewer Fund | $ 410,000 |
| Water Fund | $ 570,000 |
| Storm Sewer Fund | $ 220,000 |
| Bond Proceeds – Levy | $ 980,000 |

The preliminary engineer's estimate for the project is $3,050,000. This number is intended to be conservative as the design continues to progress. A breakdown of project cost by fund is as follows:

| | |
|---|---|
| Permanent Improvement Fund | $ 1,550,000 |
| Sanitary Sewer Fund | $ 500,000 |
| Water Fund | $ 650,000 |
| Storm Sewer Fund | $ 350,000 |

A preliminary assessment role has been prepared in accordance with Chapter 12 of City Code with exception of the sidewalk construction costs. A copy can be found in appendix D of the Feasibility Study. Total assessment estimates are equal to $639,420 or approximately 21% of the total project cost.

The purpose of the public hearing on the improvement is to determine the nature of the work to be included in the project. A separate assessment hearing will be held at the conclusion of the project to take input on the assessment associated with the project. The Feasibility study estimates the typical assessment to properties to be $8,412 for a typical 63.2 ft lot. This includes $6,200 for sewer and water replacement and $2,212 for street improvements. We feel these to be conservative estimates and will most likely go down once we have bids for this work. Obviously as some of these costs are based on frontage the assessment to each property will vary. The range in frontage is significant running from 23.2 feet at the low end up to 200.4 feet at the high end. Properties are not assessed twice for sewer and water therefore if a property paid a previous assessment for sewer or water on another street they front on or are served from they will not be assessed a second time with this project. If a property is situated on a corner they will be assessed their short side and/or one third the length of their long side for streets that are being reconstructed. Lots that have frontage on their front and rear lot lines (double frontage) will only be assessed for one side. The range in assessment amount runs from $1,165 to $13,228. The wide range in these numbers depends on if sewer and/or water is included in the assessment and the frontage involved

in the street assessment. Since there is such a wide range in assessment the City Council may wish to explore the option of adding a cap amount to the assessment to limit the amount assessed to those with larger frontages.

The City Code as written requires residents to pay 100% of the cost of concrete sidewalk on Non-MSA routes. All streets within this project are Non-MSA routes. Staff believes including this cost would make the assessment amounts exceed the benefit. Additionally, since the sidewalk on Prospect Avenue is called out in the Safe Routes to Schools plan, staff believes this sidewalk to have a more city-wide benefit similar to a MSA route. For these reasons the sidewalk costs are not included in the assessments as shown in the Feasibility Study. Staff has shared with residents that the proposed assessments do not include sidewalk costs. If sidewalks are removed from the project it would have little to no effect on the amount to be assessed.

A second hearing will be held at the end of construction that will deal with the details of the assessments and a second public hearing will be held to take public input on the cost of the assessment. The issue of a potential cap amount and waiving sidewalk assessments can be discussed either as a code amendment or special conditions to be placed on this assessment at the time of the assessment hearing.

**Advisory Committee/Commission Action**
N/A

**Supporting Documentation Attached**

- Resolution No. 20-12
- Feasibility Study
- Email comment received from Prospect Avenue Resident

**CITY OF CLOQUET**
**COUNTY OF CARLTON**
**STATE OF MINNESOTA**

**RESOLUTION NO. 20-12**

**RESOLUTION ORDERING IMPROVEMENT AND PREPARATION OF PLANS AND SPECIFICATIONS FOR THE RECONSTRUCTION OF PROPOSED 2020 IMPROVEMENT OF PROSPECT AVENUE AREA STREETS**

**WHEREAS**, The City has completed a feasibility study to reconstruct Prospect Avenue – 14th Street to 18th Street, Prospect Avenue – 20th Street to 22nd Street, 20th Street – Prospect Avenue to Selmser Avenue, 21st Street – Selmser Avenue to Dead end, Kelly Avenue – 21st Street to 22nd Street, 21st Street – Kelly Avenue to Prospect Avenue, 20th Street – Prospect Avenue to Fairview Avenue, Fairview Avenue – 18th Street to 20th Street and

**WHEREAS**, As part of the project the City Engineer has identified a need to replace aging and deteriorated roadway, sidewalks, sanitary sewers, storms sewers, and water utilities; and

**WHEREAS**, A resolution of the Council adopted February 4, 2020, set a date for a public hearing on the proposed improvement; and

**WHEREAS,** Ten days mailed notice and two weeks published notice of the hearing was given and the hearing was held thereon on the 5th day of March 2020, at which time all persons desiring to be heard were given an opportunity to be heard.

**NOW, THEREFORE, BE IT RESOLVED, BY THE CITY COUNCIL OF THE CITY OF CLOQUET, MINNESOTA:**

1. Such improvement is necessary, cost effective, and feasible as detailed in the City's feasibility study.

2. The City Engineer is hereby designated as the engineer for this improvement and shall prepare plans and specifications for the making of such improvement.

3. Such improvement is hereby ordered and the City Engineer is hereby authorized to solicit bids for construction.

**PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF CLOQUET THIS 5th DAY OF MARCH 2020.**

_____
Roger Maki, Mayor

ATTEST:

_____
Tim Peterson, City Administrator

**From:** Arthur Wojciehowski
**Sent:** Sunday, February 23, 2020 7:51 PM
**To:** tpeterson@cloquetmn.gov <tpeterson@cloquetmn.gov>
**Cc:** cpeterson@cloquetmn.gov <cpeterson@cloquetmn.gov>; rmaki@cloquetmn.gov <rmaki@cloquetmn.gov>; slamb@cloquetmn.gov <slamb@cloquetmn.gov>; cswanson@cloquetmn.gov <cswanson@cloquetmn.gov>; kkolodge@cloquetmn.gov <kkolodge@cloquetmn.gov>; slangley@cloquetmn.gov <slangley@cloquetmn.gov>; lwilkinson@cloquetmn.gov <lwilkinson@cloquetmn.gov>; news@pineknotnews.com <news@pineknotnews.com>; news@pinejournal.com <news@pinejournal.com>; mary ann johnson <polekeeper@aol.com>
**Subject:** Prospect Ave reconstruction

Tim Peterson

City administrator

I received a notice on the hearing for Prospect Ave. improvements and reconstruction. I am unable to attend the hearing as I am out of state at this time. I have several comments I would like to be read into the record at this meeting.

My first concern is the proposed sidewalk to be located on the south side of Prospect Ave. from 14th street to 18th street. It is specified to be a 5-foot-wide sidewalk. I have been a resident on Prospect Ave. for 18 plus year, during that time I have observed from 0 - 4 pedestrians per day maximum walking along the street during the summer and virtually none in the winter To put a sidewalk let alone a 5 foot wide one along this ave. with the historically low pedestrian traffic is a waste of resources and money this savings would be fiscally responsible and allow for additional improvements of all the other failing streets in the city. If it is allowed to be installed then it should be on the north side of the ave. adjacent to the park so people that would access the park safely to get into the park and would not be crossing the street. It also would preserve the limited lawn areas of the homes along this area.As it is the park has 2 entrances and a parking area by the ball field along with access from 14th street, so again a sidewalk would not be a benefit along this avenue as the only entrance to the park along Prospect ave.is at the parking lot adjacent to the ball field. Avenues in the past have not had sidewalks as there are only 3-4 houses on each block compared to 12-14 along streets. The only avenues that have sidewalks are those that border or lead to a commercial area, schools and churches etc such as Carlton ave, Doddridge and Washington Ave whereas Prospect Ave. dead ends at 2nd street and in Scanlon. So in conclusion I am against the inclusion of sidewalks in this project for this reason also for the elimination of green areas "lawns" by the sidewalk and the additional stormwater drainage caused by the sidewalk into the river, etc contributing to more pollution

As for the assessment's I assume we would receive an itemized cost, listing the individual costs of the bituminous costs etc. per residence, the costs of storm sewers, sanitary sewers and water lines are covered by the .5% sales tax. Also why is the assessment 40% higher than the 3rd street reconstruction which was more labor intensive? I can't believe that there has been a 40% increase in labor and bituminous In around 3 years. The current estimated assessment is around 10% of the market value of the homes in this area which in affect lowers the market value of the homes due to the assessment and the loss of green area "lawns"

I would also point out that funds from the .5% sales tax are stipulated to be used for parks and engineering and construction of infrastructure improvements, including, but not limited to storm sewer, sanitary sewer and water In areas identified as part of the city's comprehensive land use plan. See Minnesota Statutes, 2.32 section 645.021, subdivisions 2 and 3.

**CITY OF CLOQUET**

# FEASIBILITY STUDY

**For the**

## 2020 PROPOSED PROSPECT STREET AREA RECONSTRUCTION PROJECT

**PROJECT AREA**
**Prospect Avenue – 14th Street to 18th Street**
**Prospect Avenue – 20th Street to 22nd Street**
**20th Street – Prospect Avenue to Selmser Avenue**
**21st Street – Selmser Avenue to Dead end**
**Kelly Avenue – 21st Street to 22nd Street**
**21st Street – Kelly Avenue to Prospect Avenue**
**20th Street – Prospect Avenue to Fairview Avenue**
**Fairview Avenue – 18th Street to 20th Street**

**City Project No. 1091**

**January 27, 2020**

## CERTIFICATION SHEET

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Signature _____

Typed or Printed Name John M. Anderson

Date: January 27, 2020 License Number 25889

## I. Project Description

As part of the City's 5-Year Capital Improvement Program (CIP), preliminary plans have been assembled to reconstruct in the Prospect Avenue Area during the summer of 2020. The project is proposed to include the total reconstruction of the street, curb and gutter, sidewalk, watermain, sanitary and storm sewers in the area.

## II. Watermain

The existing watermain in this area appears to be original town infrastructure, likely installed in the early 1930's or before. Currently there is no watermain in 21st Street between Selmser and the dead end to the south. The existing structures on this street are served by long services that extend to either Selmser Avenue to the north or Kelly Avenue to the south. Eleven breaks have been documented on the existing pipeline over the past 20 years. Given the proximity to the existing sewer and likely lead calked joints the existing system does not comply with current health codes. The age and code issues in the existing system warrant replacement prior to construction of a new roadway.

The proposed design includes a new 8" diameter Ductile Iron watermain located with the proper separation from sewers both horizontally and vertically as required by the Minnesota Department of Health. Also watermain would be added to the block of 21st Street that is currently without water and sewer thus providing accessible and maintainable services to adjacent properties. As a cost comparison We plan to bid PVC watermain and PE water service pipe. If we find a cost savings using these materials we would recommend these alternative materials in the construction of the water system.

## III. Sanitary Sewer

The existing clay tile sewer in the area is close to 100 years in age. Sewer grades are generally very flat in this area this coupled with Root intrusion and failure of clay pipe have led to back-ups that have been documented over the past 30 years. Root intrusion into the pipeline is a major issue, and the structural capacity is highly questionable. Recent attempts to televise the sewermain have indicated multiple holes/voids in both the main and associated manholes with severe cracking in multiple locations.

The recommended improvement includes the installation of a new 8" PVC sewer to be located under the centerline of the new roadway. Those sections of existing sewer not removed as part of the new watermain construction would be abandoned in place. New sewer service lines would be extended to connect with existing service lines at the right of way.

## IV. Storm Sewer

The existing area is served by a storm sewer that outlets down the 18th Street corridor. The storm sewer size in the area needs to be increased to provide an outlet for areas to the north and west. These areas are anticipated to be improved in the future under the 14th Street joint Carlton County / City of Cloquet project projected to be constructed in

2021 and 2022 and the future Selmser Avenue and Prospect Avenue projects identified 2022 and 2023 in the 5-year capital improvement plan. Additionally, replacement of the storm sewer system will provide adequate pipe capacity to collect storm runoff in the immediate project area.

## V. Street & Sidewalk Construction

The existing road right-of-way on streets in this area is 66 feet. The existing street widths in the area are shown in Table 1 along with existing sidewalk locations, Pavement condition rating (PCI) and curb locations. There is a quite a range of street design widths inplace as well as a variety of applications of curb. Soil borings show a range of pavement thickness from 3 ½ to 9 inches of bituminous pavement on top of anywhere from 0 to 12 inches of gravel. The sub grade soils are generally poorly graded or silty sand on top of lean clay. There are some indications of groundwater in the 8 to 9 foot depth. Pavement Condition for the bulk of these streets is poor (0-40).

Table 1

| Existing Conditions | | ROAD WIDTH | Pavement Condition | CURB & GUTTER | SIDEWALK |
|---|---|---|---|---|---|
| STREET | SEGMENT | | PCI | | |
| Prospect Avenue | 14th St - 18th St | 27' | 12 | Varies | None |
| Prospect Avenue | 20th St - 22nd St | 27' | 5 | Varies | None |
| 20th Street | Selmser - Prospect | 27' | 42 | Both Sides | Both Sides |
| Kelly Avenue | 21st St - 22nd St | 22' | 12 | None | None |
| 21st Street | Kelly - Prospect | 24' | 5 | None | None |
| Fairview Avenue | 18th St - 20th | 27 | 56 | Both Sides | None |
| 20th Street | Fairview - Prospect | 27' | 16 | Both Sides | None |
| 21st Street | Selmser - Dead End | 22' | 26 | None | None |

As state aid does not dictate design standards for these local streets there is some latitude in the street width. Given the local nature of most of these streets the primary goal is to provide access to the adjacent property and not focused on conveying a significant amount of thru traffic. Traffic counts completed in this area (Prospect between 21st and 22nd) during the summer of 2019 show an AADT of 272. Safe Routes to Schools has identified a need to provide a sidewalk corridor along Prospect Avenue from 14th Street to 22nd Street. 20th Street from Prospect to Selmser currently has sidewalk on both sides of the street and probably does not fully utilize sidewalk on both sides therefore we are recommending that sidewalk be placed on one side when reconstructed. The section of Prospect Avenue from 18th Street to 20th Street was previously reconstructed without sidewalk. In order to provide a continuous sidewalk corridor, we are proposing to add sidewalk behind the curb on the north side of these two blocks along with this project. Proposed Street widths and sidewalk locations are shown in Table 2.

Table 2

| Proposed Conditions | | ROAD WIDTH | Condition | CURB & GUTTER | SIDEWALK |
|---|---|---|---|---|---|
| STREET | SEGMENT | Proposed | PCI | Proposed | Proposed |
| Prospect Avenue | 14th St - 18th St | 27' | 100 | Both Sides | South Side |
| Prospect Avenue | 20th St - 22nd St | 27' | 100 | Both Sides | North Side |
| 20th Street | Selmser - Prospect | 27' | 100 | Both Sides | One Side |
| Kelly Avenue | 21st St - 22nd St | 22' | 100 | Both Sides | None |
| 21st Street | Kelly - Prospect | 24' | 100 | Both Sides | None |
| Fairview Avenue | 18th St - 20th | 27 | 100 | Both Sides | None |
| 20th Street | Fairview - Prospect | 27' | 100 | Both Sides | None |
| 21st Street | Selmser - Dead End | 22' | 100 | Both Sides | None |

In general, we have tried to perpetuate the with of the streets as they currently exist both in an effort to occupy the same footprint as well as provide traffic calming effect. Parking is prohibited along the ball field at Athletic park currently and would continue to be in the future. We have included a parking bump out along the skate park to add some needed spaces in the area. The balance of the neighborhood parking will not be regulated by signage but with the addition of curb and gutter it will be difficult for cars to park opposite each other with out blocking the road. There does not seem to be a huge demand for onstreet parking therefore we do not see a need at this time to prohibit parking in any area other than adjacent to the ball field fence.

Sidewalk is proposed to run along the South side of Prospect from 14th Street to 18th Street and then along the north side of Prospect from 18th Street to 22nd Street. This connection will provide a link called out in the Safe routes to schools plan that has been jointly prepared by Carlton County, Cloquet Area Schools, and the City of Cloquet. Another part of that plan is proposed to be constructed by Carlton County. That piece would be a sidewalk along 22nd Street from Washington Avenue to Prospect Avenue See **Appendix E**

Figures 1 through 5 below show the proposed street sections for the project.

**Figure 1 – Prospect (14th Street to 18th Street)**

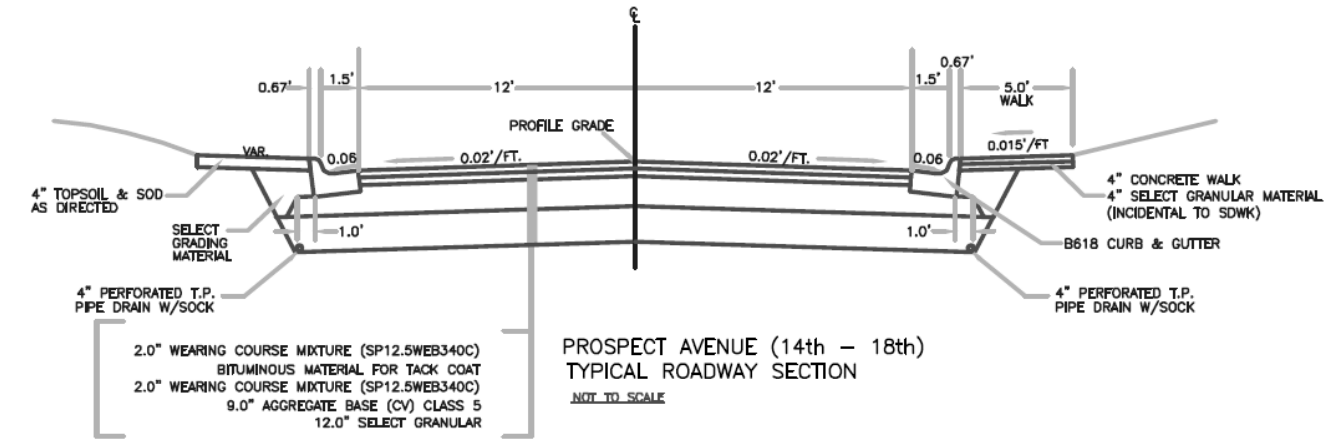



**Figure 2 – Prospect (along the Skate Park)**

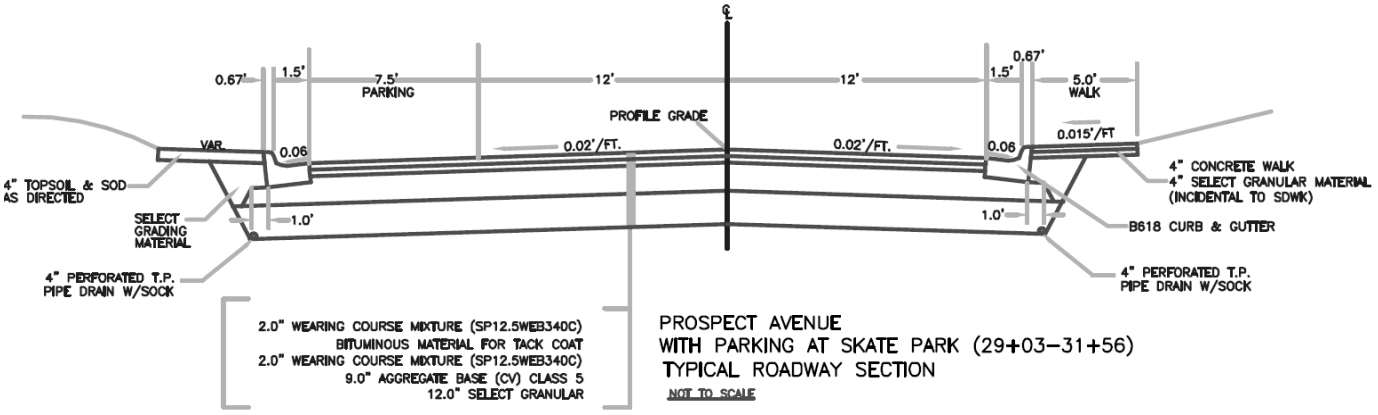



**Figure 3 - 20th Street (Prospect to Selmser)**

**Sidewalk to be on one side with side yet to be determined**

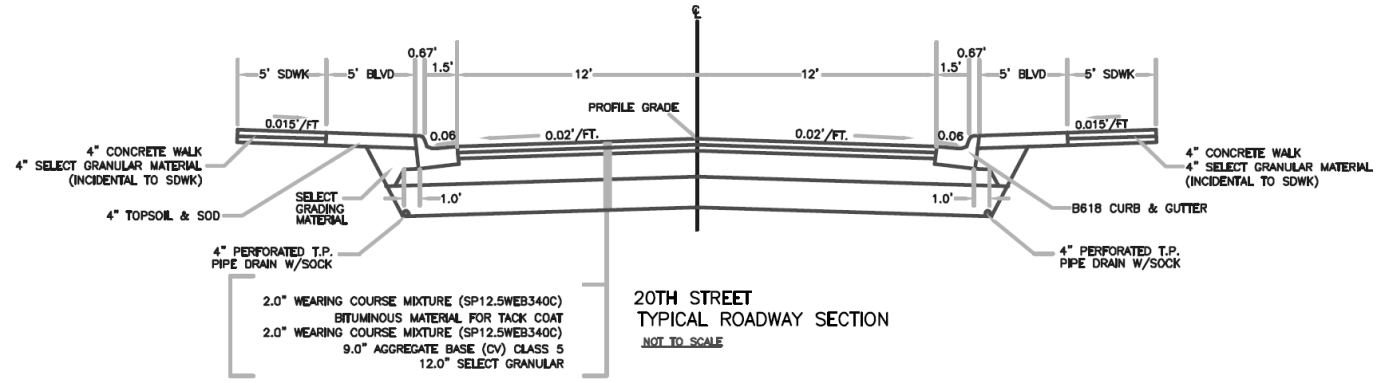


**Figure 4 – 21st Street (Selmser south to dead end)**

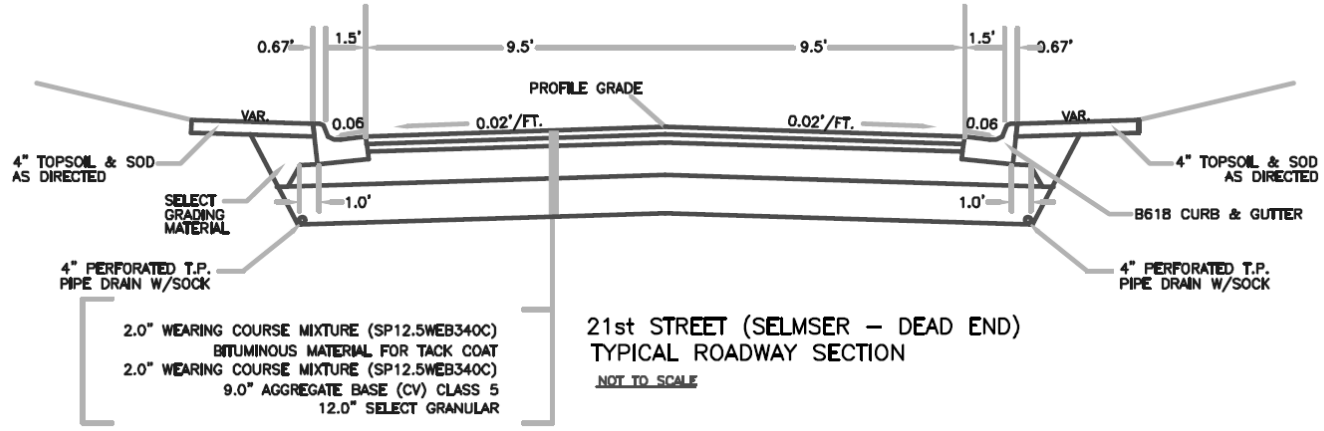
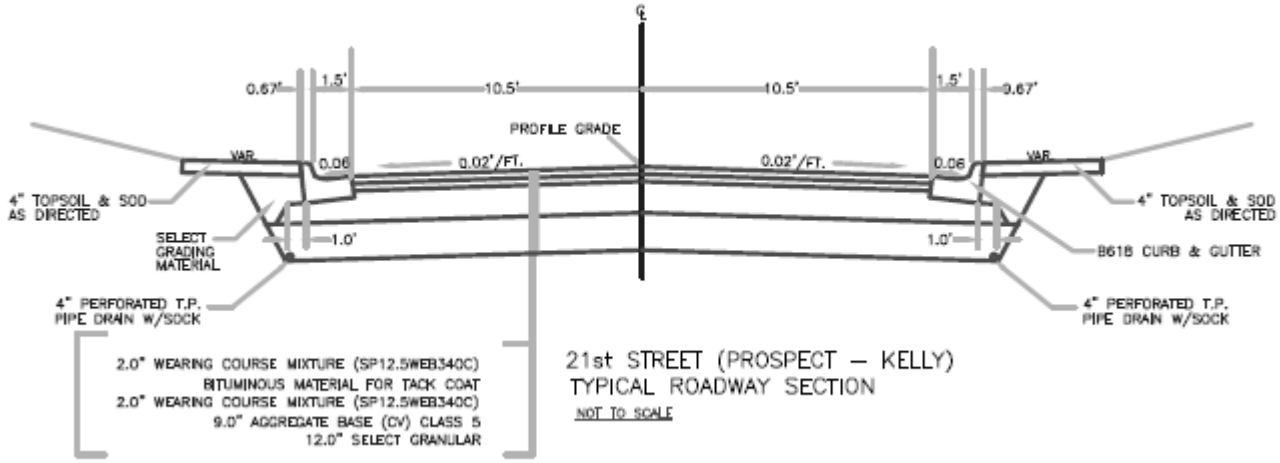



**Figure 5 – 21st Street (Prospect to Kelly)**




In general, the existing surface infrastructure is considered to be in poor to failed condition. Multiple overlays have been completed over the years however poor subgrade soils warrant complete reconstruction of the road at this time. A geotechnical investigation of the site was preformed and the recommendations for street and utility construction have been incorporated into the design. The Boring Logs are attached in **Appendix A**

## VI. Neighborhood Meeting

A neighborhood meeting was held on January 23, 2020 to introduce the project and solicit input from residents. There were 12 people in attendance at the meeting and 1 email received with questions concerning the meeting. Staff shared a presentation about the project and held a discussion on project elements. Much of the discussion centered

around sidewalk. There was a consensus among the group that sidewalk should be replaced on at least one side of 20th Street from Prospect to Selmser. There was much discussion of the pros and cons of sidewalk along Prospect. Pros being providing a place for school aged kids to walk out of the street and the connections to school and the park. The cons being loss of front yard, possible loss of trees in order to construct it and difficulty for homeowners to keep snow off the sidewalk in the winter when it is located directly behind the curb. The presentation and sign in sheet from the meeting are included in **Appendix B**

## VII. Cost Estimate & Funding

The engineer's estimate for the project can be found in **Appendix C** of this report. The total construction cost is estimated at $3,050,000. Proposed funding is projected to come from a number of funds. A breakdown of project cost by fund is as follows:

Permanent Improvement Fund ……..…….……$1,550,000
Water Fund…….$650,000
Sewer Fund……...$500,000
Stormwater…….$350,000

A preliminary assessment role has been prepared in accordance with Chapter 12 of City Code. A copy can be found in **Appendix D** of this report. Total assessment estimates are equal to $639,420 or approximately 21% of the total project cost.

## VIII. Project Schedule

The schedule for the proposed improvements is as follows:

Neighborhood Meeting……...January 29, 2020
Receive Feasibility Study / Order Public Hearing……....February 4, 2020
Public Hearing……...March 5, 2020
Advertise for Bid..……...March 6, 2020
Open Bids..……...March 31, 2020
Award Bids…… ……...April 7, 2020
Start Construction ……May 2020
Substantial Completion of Construction ……October 2020
Assessment Hearing ……...February 2021

## IX. Cost Effective and Necessary

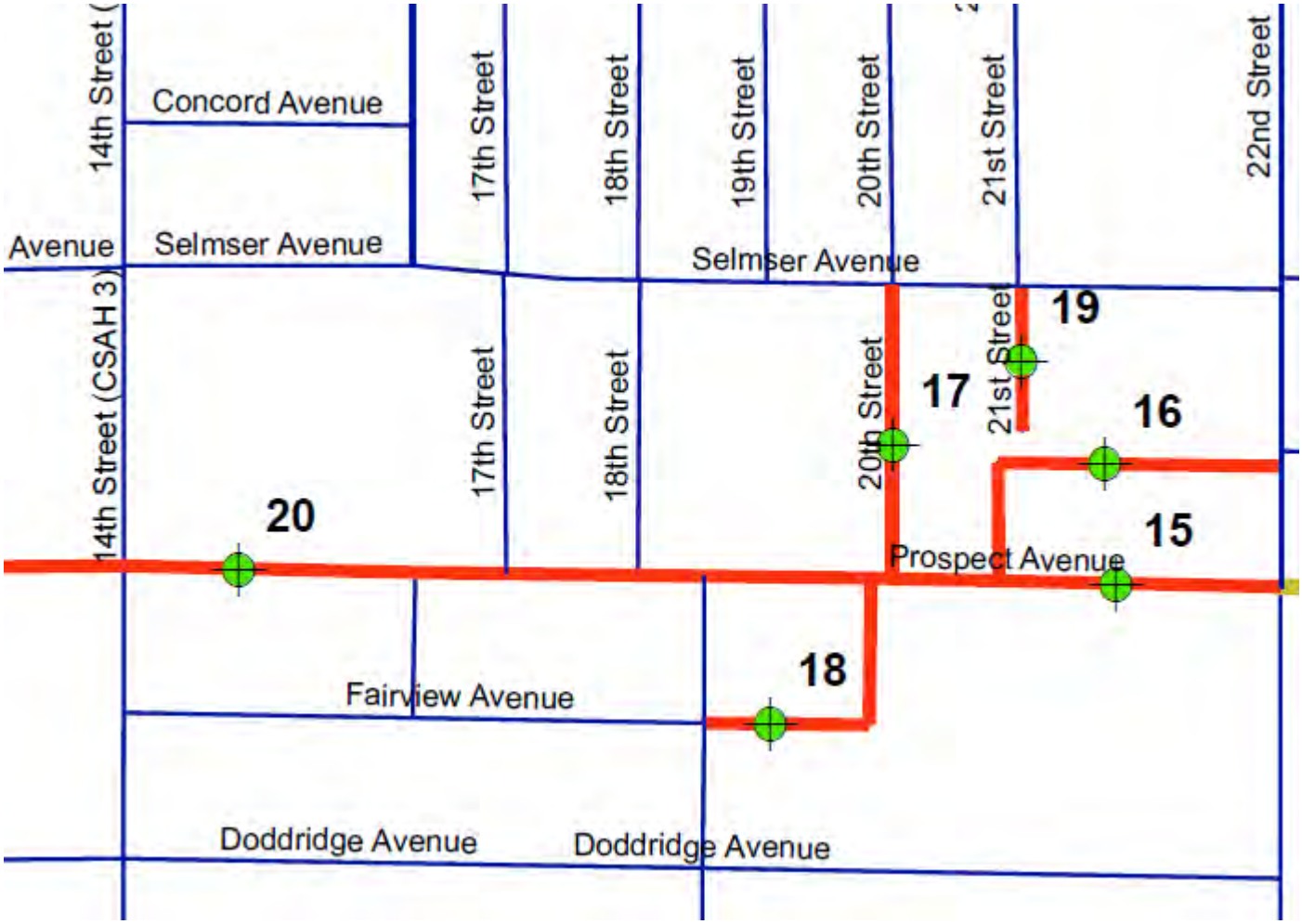
The project is of sufficient size and scope to be cost effective and the work is necessary to maintain the public infrastructure.

## X. Conclusion & Recommendations

Based upon the information contained in this report, the proposed Prospect Street Area Reconstruction Project is feasible from an engineering and financial standpoint.

# APPENDIX A
# Geotechnical Report

# Soil Boring Locations



BRAUN INTERTEC

# LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

**Project Number B1911927**
**Geotechnical Evaluation**
**2020 Projects Soil Borings**
**Various Streets**
**Cloquet, Minnesota**

BORING: **ST-15**

LOCATION: See attached sketch

NORTHING: 208358 EASTING: 560817

DRILLER: M. Heinzen LOGGED BY: M. Johnson

START DATE: 01/09/20 END DATE: 01/09/20

SURFACE ELEVATION: 1246.3 ft RIG: 7505 METHOD: 3 1/4" HSA

SURFACING: Pavement WEATHER: Sunny; cold

| Elev./ Depth ft | Water Level | Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908) | Sample | Blows (N-Value) Recovery | $q_p$ tsf | MC % | Tests or Remarks |
|---|---|---|---|---|---|---|---|
| 1245.6 | | BITUMINOUS, 9 inches | | | | | |
| 0.8 | | AGGREGATE, 4 inches | | | | | |
| 1245.2 | | FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, dark brown, frozen (moist when thawed) | | | | | |
| 1.1 | | | | | | | |
| 1244.3 | | SANDY LEAN CLAY (CL), trace organics, dark gray, frozen (moist when thawed) (GLACIAL OUTWASH) | | | | | |
| 2.0 | | | | | | | |
| 1242.3 | | SILTY SAND (SM), fine to medium-grained Sand, trace Gravel, brown, moist, loose (GLACIAL OUTWASH) | 5 | 1-3-5 (8) 15" | | | |
| 4.0 | | | | | | | |
| 1239.3 | | LEAN CLAY (CL), trace Sand, and Gravel, reddish brown, moist, very stiff (GLACIAL TILL) | | 3-9-17 (26) 17" | | | |
| 7.0 | | | 10 | 4-14-15 (29) 17" | | | |
| 1233.3 | | | | | | | |
| 13.0 | | CLAYEY SAND (SC), reddish brown, moist, very stiff (GLACIAL TILL) | | 7-10-12 (22) 15" | | | Water not observed while drilling. |
| 1231.8 | | | | | | | |
| 14.5 | | END OF BORING | 15 | | | | |
| | | Boring immediately backfilled | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

BRAUN INTERTEC

# LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

**Project Number B1911927**
**Geotechnical Evaluation**
**2020 Projects Soil Borings**
**Various Streets**
**Cloquet, Minnesota**

BORING: **ST-16**

LOCATION: See attached sketch

NORTHING: 208631 EASTING: 560935

DRILLER: M. Heinzen LOGGED BY: M. Johnson

START DATE: 01/09/20 END DATE: 01/09/20

SURFACE ELEVATION: 1246.8 ft RIG: 7505 METHOD: 3 1/4" HSA

SURFACING: Pavement WEATHER: Sunny; cold

| Elev./ Depth ft | Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908) | Sample | Blows (N-Value) Recovery | $q_p$ tsf | MC % | Tests or Remarks |
|---|---|---|---|---|---|---|
| 1246.5<br>0.3 | BITUMINOUS, 3 1/2 inches<br>AGGREGATE, 12 inches | | | | | |
| 1245.5<br>1.3<br>1244.8<br>2.0 | FILL: SILTY SAND (SM), fine to medium-grained Sand, with Gravel, dark brown, frozen (moist when thawed) | | | | | |
| 1242.8<br>4.0 | SILTY SAND (SM), fine to medium-grained Sand, trace Gravel, dark brown, frozen (moist when thawed) (POSSIBLE FILL) | 5 | 6-10-11<br>(21)<br>13" | | | |
| 1239.8<br>7.0 | POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, trace Gravel, brown, moist, medium dense (GLACIAL OUTWASH) | | 5-6-5<br>(11)<br>17" | | | |
| 1236.8<br>10.0 | LEAN CLAY (CL), trace Sand, and Gravel, reddish brown, moist, stiff (GLACIAL TILL) | 10 | 5-5-6<br>(11)<br>6" | | | |
| 1232.3<br>14.5 | SANDY LEAN CLAY (CL), trace Gravel, reddish brown, moist, very stiff (GLACIAL TILL) | | 5-6-11<br>(17)<br>15" | | | Water not observed while drilling. |
| | END OF BORING<br>Boring immediately backfilled | 15 | | | | |
| | | 20 | | | | |
| | | 25 | | | | |
| | | 30 | | | | |

BRAUN INTERTEC

# LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

**Project Number B1911927**
**Geotechnical Evaluation**
**2020 Projects Soil Borings**
**Various Streets**
**Cloquet, Minnesota**

BORING: **ST-17**

LOCATION: See attached sketch

NORTHING: 208668 EASTING: 560504

DRILLER: M. Heinzen LOGGED BY: M. Johnson START DATE: 01/09/20 END DATE: 01/09/20

SURFACE ELEVATION: 1244.4 ft RIG: 7505 METHOD: 3 1/4" HSA SURFACING: Pavement WEATHER: Sunny; cold

| Elev./ Depth ft | Water Level | Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908) | Sample | Blows (N-Value) Recovery | $q_p$ tsf | MC % | Tests or Remarks |
|---|---|---|---|---|---|---|---|
| ~~1244.1~~ | | BITUMINOUS, 3 1/2 inches | | | | | |
| 0.3 | | FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, dark brown, moist | | | | | |
| 1242.4 | | | | 9-7-4 (11) 13" | | | |
| 2.0 | | FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, trace Gravel, brown, moist | | | | | |
| | | | 5 | 5-10-8 (18) 4" | | | |
| 1237.4 | | | | | | | |
| 7.0 | | LEAN CLAY (CL), trace Sand, and Gravel, reddish brown, moist, stiff to very stiff (GLACIAL TILL) | | 3-5-5 (10) 13" | | | |
| | | | 10 | 5-5-8 (13) 16" | | | |
| 1229.9 | | | | 6-8-10 (18) 17" | | | |
| 14.5 | | END OF BORING | 15 | | | | Water not observed while drilling. |
| | | Boring immediately backfilled | | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

BRAUN INTERTEC

# LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

**Project Number B1911927**
**Geotechnical Evaluation**
**2020 Projects Soil Borings**
**Various Streets**
**Cloquet, Minnesota**

BORING: **ST-18**

LOCATION: See attached sketch

NORTHING: 208037 EASTING: 560265

DRILLER: M. Heinzen LOGGED BY: M. Johnson START DATE: 01/09/20 END DATE: 01/09/20

SURFACE ELEVATION: 1244.4 ft RIG: 7505 METHOD: 3 1/4" HSA SURFACING: Pavement WEATHER: Sunny; cold

| Elev./ Depth ft | Water Level | Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908) | Sample | Blows (N-Value) Recovery | $q_p$ tsf | MC % | Tests or Remarks |
|---|---|---|---|---|---|---|---|
| 1244.1 | | BITUMINOUS, 4 inches | | | | | |
| 0.3 | | FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, dark brown, frozen (moist when thawed) | | | | | |
| 1242.4 | | | | | | | |
| 2.0 | | FILL: SANDY LEAN CLAY (CL), reddish brown, frozen (moist when thawed) | | | | | |
| 1240.4 | | | | | | | |
| 4.0 | | LEAN CLAY (CL), trace Sand, and Gravel, reddish brown, moist, medium to very stiff (GLACIAL TILL) | 5 | 3-3-4 (7) 11" | | | |
| | | | | 4-5-6 (11) 16" | | | |
| | | | 10 | 2-5-8 (13) 16" | | | |
| | | *Sand lense at 11 feet* | | | | | |
| 1229.9 | | | | 6-11-13 (24) 18" | | | |
| 14.5 | | END OF BORING | 15 | | | | Water not observed while drilling. |
| | | Boring immediately backfilled | | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

BRAUN INTERTEC

# LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

**Project Number B1911927**
**Geotechnical Evaluation**
**2020 Projects Soil Borings**
**Various Streets**
**Cloquet, Minnesota**

BORING: **ST-19**

LOCATION: See attached sketch

NORTHING: 208845 EASTING: 560793

DRILLER: M. Heinzen LOGGED BY: M. Johnson START DATE: 01/09/20 END DATE: 01/09/20

SURFACE ELEVATION: 1244.8 ft RIG: 7505 METHOD: 3 1/4" HSA SURFACING: Pavement WEATHER: Sunny; cold

| Elev./ Depth ft | Water Level | Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908) | Sample | Blows (N-Value) Recovery | $q_p$ tsf | MC % | Tests or Remarks |
|---|---|---|---|---|---|---|---|
| 1244.4 | | BITUMINOUS, 4 1/2 inches | | | | | |
| 0.4 | | AGGREGATE, 12 inches | | | | | |
| 1243.4 | | FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, trace Gravel, dark brown, frozen (moist when thawed) | | | | | |
| 1.4 | | | | | | | |
| 1242.8 | | | | | | | |
| 2.0 | | | | | | | |
| 1239.8 | | SANDY LEAN CLAY (CL), trace organics, dark gray, frozen (wet when thawed) (POSSIBLE FILL) | 5 | 3-2-5 (7) 12" | | | |
| 5.0 | | SILTY SAND (SM), fine to medium-grained Sand, trace Clay, reddish brown, moist, loose (GLACIAL OUTWASH) | | | | | |
| 1237.8 | | CLAYEY SAND (SC), reddish brown, moist, stiff (GLACIAL TILL) | | 3-6-9 (15) 14" | | | |
| 7.0 | | | | | | | |
| 1234.8 | | SANDY LEAN CLAY (CL), trace Sand, and Gravel, reddish brown, moist, hard (GLACIAL TILL) | 10 | 4-7-6 (13) 15" | | | |
| 10.0 | | | | | | | |
| 1231.8 | | CLAYEY SAND (SC), with Gravel, reddish brown to gray, moist, hard (GLACIAL TILL) | | 8-21-26 (47) 9" | | | |
| 13.0 | | | | | | | |
| 1230.3 | | END OF BORING | 15 | | | | Water not observed while drilling. |
| 14.5 | | Boring immediately backfilled | | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

BRAUN INTERTEC

# LOG OF BORING

See Descriptive Terminology sheet for explanation of abbreviations

**Project Number B1911927**
**Geotechnical Evaluation**
**2020 Projects Soil Borings**
**Various Streets**
**Cloquet, Minnesota**

BORING: **ST-20**

LOCATION: See attached sketch

NORTHING: 208391 EASTING: 558920

DRILLER: M. Heinzen LOGGED BY: M. Johnson START DATE: 01/09/20 END DATE: 01/09/20

SURFACE ELEVATION: 1245.8 ft RIG: 7505 METHOD: 3 1/4" HSA SURFACING: Pavement WEATHER: Sunny; cold

| Elev./ Depth ft | Water Level | Description of Materials (Soil-ASTM D2488 or 2487; Rock-USACE EM 1110-1-2908) | Sample | Blows (N-Value) Recovery | $q_p$ tsf | MC % | Tests or Remarks |
|---|---|---|---|---|---|---|---|
| 1245.4 | | BITUMINOUS, 4 inches | | | | | |
| 0.3 | | FILL: POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, with Gravel, dark brown, frozen (moist when thawed) | | | | | |
| 1243.8 | | | | | | | |
| 2.0 | | SANDY LEAN CLAY (CL), trace Gravel, brown, frozen (moist when thawed) (POSSIBLE FILL) | | | | | |
| | | *trace organics at 5 feet* | 5 | 5-3-3 (6) 13" | | | |
| 1238.8 | | | | | | | |
| 7.0 | ▽ 8.5 ft | POORLY GRADED SAND with SILT (SP-SM), fine to medium-grained Sand, brown, wet, loose (GLACIAL OUTWASH) | | 3-4-4 (8) 8" | | | |
| | | | 10 | 1-3-4 (7) 9" | | | |
| | | | | 1-3-6 (9) 5" | | | |
| 1231.3 | | | | | | | |
| 14.5 | | END OF BORING | 15 | | | | Water observed at 8.5 feet while drilling. |
| | | Boring immediately backfilled | | | | | Water observed at 9.2 feet immediately after withdrawal of auger. |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

# APPENDIX B
# Neighborhood Meeting
# January 29, 2020

## Prospect Avenue Area Improvements

CLOQUET

Neighborhood Informational Meeting
January 23, 2020

Caleb Peterson, Public Works Director
John Anderson, Assistant City Engineer

Please Sign in on the sheets provided

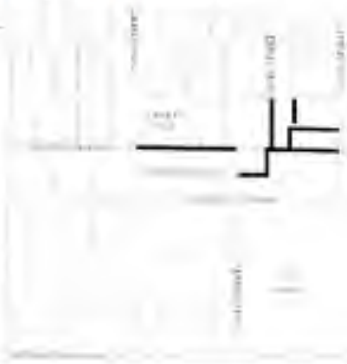
## Meeting Agenda

- City's Pavement Management Program
- Existing Utilities
- Street Improvements:
  - - Full Reconstruction
- Sidewalks
- Schedule
- Special Assessment Process
- Common Concerns / follow up call
- Questions

## Pavement Management Program

- City roadways rated based on their condition, full inventory taken the summer of 2017
- Information used to develop the Pavement Management Program and prioritize projects
- These Roadways have been identified for reconstruction
- Problems include: aging or failing underground infrastructure, poor drainage collection, deteriorated pavement structure

## Project Limits



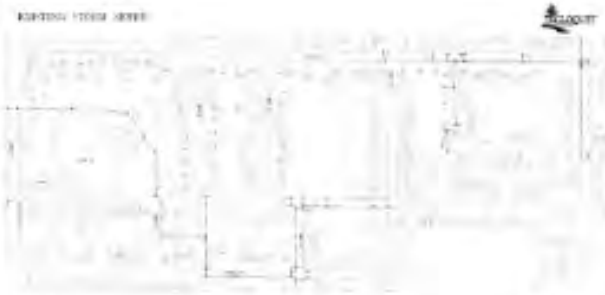
## Existing Utilities

- Watermain compliance with Dept of Health standards
- Sanitary Sewer condition
- History of Sewer Backups
- Lack of Storm Sewer
- Private utilities (gas, electric, phone, cable) will be notified

## Water System

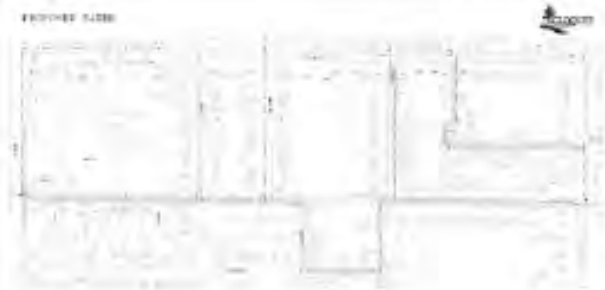
## Sanitary Sewer System

## Storm Sewer

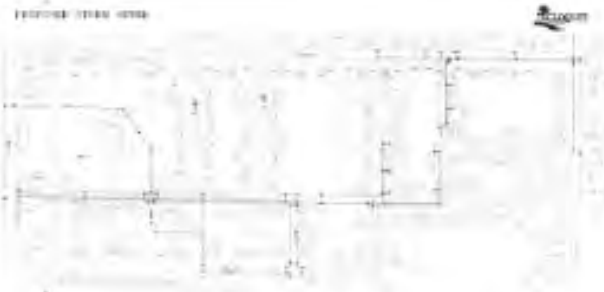


## Sanitary Sewer System

## Water System



## Storm Sewer

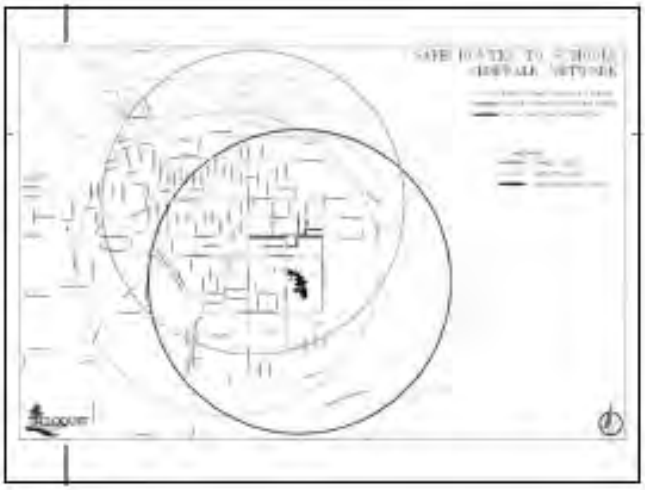


## Existing Street Conditions

| Existing Conditions | | ROAD WIDTH | Condition | CURB & GUTTER | SIDEWALK |
|---|---|---|---|---|---|
| STREET | SEGMENT | Existing | PCI | Existing | Existing |
| Prospect Avenue | 14th St - 18th St | 27-30' | 12 | Varies | None |
| Prospect Avenue | 20th St - 22nd St | 22'-28' | 5 | Varies | None |
| 20th Street | Selmser - Prospect | 29' | 42 | Both Sides | Both |
| Kelly Avenue | 21st St - 22nd St | 20'-22' | 12 | None | None |
| 21st Street | Kelly - Prospect | 26' | 5 | None | None |
| Fairview Avenue | 18th St - 20th | 29' | 50 | Both Sides | None |
| 20th Street | Fairview - Prospect | 29' | 10 | Both Sides | None |
| 21st Street | Selmser - Dead End | 22' | 26 | None | None |

## Proposed Street Sections

| Proposed Conditions | | ROAD WIDTH | Condition | CURB & GUTTER | SIDEWALK |
|---|---|---|---|---|---|
| STREET | SEGMENT | Proposed | PCI | Proposed | Proposed |
| Prospect Avenue | 14th St - 18th St | 27' | 100 | Both Sides | South Side |
| Prospect Avenue | 20th St - 22nd St | 27' | 100 | Both Sides | North Side |
| 20th Street | Saimser - Prospect | 27' | 100 | Both Sides | None |
| Kelly Avenue | 21st St - 22nd St | 22' | 100 | Both Sides | None |
| 21st Street | Kelly - Prospect | 24' | 100 | Both Sides | None |
| Fairview Avenue | 18th St - 20th | 27' | 100 | Both Sides | None |
| 20th Street | Fairview - Prospect | 27' | 100 | Both Sides | None |
| 21st Street | Saimser - Dead End | 22' | 100 | Both Sides | None |



## Street Section - Reconstruction

- width varies depending on street
- 12" Sand Base with Draintile
- 9" Class 5 – Gravel base
- Concrete Curb and Gutter
- Bituminous Base Material
- Bituminous Wear Material

## Project Funding

- Currently developing estimates
- Permanent Improvement Fund
  - Street improvements
- Assessments
  - for portions of roadway improvements, sanitary sewer and Water replacements
- City Utility Funds
  - sanitary sewer, watermain, and Storm Sewer

## Schedule/Public Process

- Neighborhood Meeting — Jan 23, 2020
- Feasibility Report to City Council — Feb 4, 2020
- Public Hearing — March 5,2020

(what's included in the project)

- The Cloquet City Council will take the next step on this project after the public hearing. Possible actions:
  - Approve project as presented, authorize bidding
  - Approve project with modifications, authorize bidding
  - Deny project

## Schedule

- If the Cloquet City Council approves the project:
  - April 2020 — Receive Bids / Award Bid
  - May 2020 — Start Construction
  - Oct 2020 — Substantial Completion
  - Feb 2021 — Assessment Hearing

(How Much do I pay for the project)

## Special Assessments

- Tool provided for in Minnesota State Statute
- Most Cities use as a partial funding source to pay for projects
- Cloquet has regularly applied assessments to projects over the past 30 plus years
- Process regulated by City Code and State Law
- Shares cost of a project between those who directly benefit and the general public

## Assessment Policy

- Street assessments are based per front foot
- Utilities assessments are on a per unit basis
- Typical lots in this area are 63.2 feet
- Street assessment rate estimated at $35/ft
- Utility assessment rate estimated at $6,200 per lot
- Total assessment estimated at $8,400 (typical 63.2' lot)

- Assessable cost must be a minimum of 20% of the project cost (State Law and City Code)

## Assessment

Payment Options:

- Paid in full without interest within 30 days of the assessment hearing
- Certified and added to property taxes
  - Payment period
    - Street reconstruction 10 yrs
  - Interest rate set when assessment roll is adopted (last project rate was 6%)

## Common Concerns

Sign in Sheet with "call Me" column

Sewer or water service issues
Private Driveway or sidewalk questions
Coordination with summer event (wedding, graduation)
Access concerns (elderly, special needs, etc.)
Remodeling my home this summer

## Project Contact Info

- If you have any questions or concerns, please contact:

John Anderson P.E. Assistant City Engineer

JAnderson@CloquetMN.Gov

(218) 655-1509

## Prospect Avenue Area Improvements

- Questions and Discussion

**John Anderson**

---

**From:** Rohde, Amber N[redacted]
**Sent:** Thursday, January 23, 2020 4:26 PM
**To:** John Anderson
**Subject:** Neighborhood meeting - Prospect Ave Area

Mr. Anderson

I had intended to attend the meeting tonight, however I've had a change in my schedule that does not allow this. I am interested in hearing more about this project as my home is located on 20th Street. I am a first time homeowner and new to this whole process. My main questions stem around the timeline of the project and projected assessments. I am considering some updates to my home this summer and access to the property will be a consideration in my plans. I am also wondering about the infrastructure updates noted in the letter, I agree there have been problems with drainage in the area and am wondering if there is any insight as to the condition of the lines (water/sewer) coming from the individual homes. I am also wondering if there has been any mention of addressing the pavement on 19th street (what if would refer to as the alley behind my home). The soil at the back of my property is what I would consider boggy and the pavement on 19th street reflects this and is quite broken up in many areas.

Thank you very much for your time,

Amber Rohde
435 20th St.

**Department of Public Works**
101 14th Street Avenue · Cloquet, MN 55720
Ph: 218-879-6758 · Fax:218-879-5998

**Prospect Avenue Area Project**
Neighborhood Meeting January 23 – 6:00 PM

**Please Sign In:**

| Name | Address / Email / Phone | Please Call Me about |
|---|---|---|
| John Anderson | janderson@cloquetmn.gov 218-655-1509 | SEND ME PRESENTATION |
| BILL MARKUS | 440 20TH ST CLOQUET 55720 | SEND ME PRESENTATION |
| JERRY MATHEY | PROPERTY | |
| Ashley Rente | 2108 Prospect Avenue [redacted] | |
| Brey Maki | [redacted] | Set up meeting |
| Kurt Lind | 418 21st St | |
| Dale Ross | 419-20th St 879-2913 | |
| Terri Hughes | 448-20th St. [redacted] | |
| Becky Armstrong/ Darren Overstad | 2008 Prospect Ave | water/sewer |
| David / Ashley Wallin | 2002 Selmser Ave | Send presentation [redacted] |
| GARY NIEHORSTER | 436 20th St. [redacted] | SEND PRESENTATION |
| | [redacted] | |
| | Please email presentation [redacted] | |

# APPENDIX C
# Engineers Estimate

CITY OF CLOQUET, MINNESOTA
ENGINEERS ESTIMATE

Prospect Area Reconstruction
City Project No. 1091
Curb & Gutter, Storm Sewer, Bituminous Paving, and Utility Reconstruction.

| SPEC NO. | CONTRACT ITEMS | UNIT | UNIT PRICE | Quantity | Total |
|---|---|---|---|---|---|
| 2021.501 | MOBILIZATION | LUMP SUM | 125000.00 | 1.00 | $ 125,000.00 |
| 2101.502 | CLEARING | TREE | 300.00 | 11.00 | $ 3,300.00 |
| 2101.507 | GRUBBING | TREE | 300.00 | 11.00 | $ 3,300.00 |
| 2104.501 | REMOVE STORM SEWER PIPE | LIN. FT. | 15.00 | 586.00 | $ 8,790.00 |
| 2104.501 | REMOVE CURB & GUTTER | LIN. FT. | 3.00 | 5892.00 | $ 17,676.00 |
| 2104.503 | REMOVE RETAINING WALL | LIN. FT. | 20.00 | 10.00 | $ 200.00 |
| 2104.503 | REMOVE LANDSCAPE TIMBER | LIN. FT. | 50.00 | 25.00 | $ 1,250.00 |
| 2104.503 | REMOVE BITUMINOUS PAVEMENT | SQ. YD. | 3.00 | 15448.00 | $ 46,344.00 |
| 2104.503 | REMOVE CONCRETE PAVEMENT | SQ. YD. | 12.00 | 322.00 | $ 3,864.00 |
| 2104.503 | REMOVE SIDEWALK | SQ. FT. | 0.80 | 7355.00 | $ 5,884.00 |
| 2104.509 | REMOVE MANHOLE OR CATCH BASIN | EACH | 350.00 | 31.00 | $ 10,850.00 |
| 2104.509 | REMOVE MANHOLE OR CATCH BASIN (SPECIAL) | EACH | 500.00 | 1.00 | $ 500.00 |
| 2104.509 | REMOVE HYDRANT | EACH | 300.00 | 3.00 | $ 900.00 |
| 2104.509 | REMOVE VALVE BOX | EACH | 200.00 | 9.00 | $ 1,800.00 |
| 2104.603 | ABANDON PIPE SEWER | LIN. FT. | 15.00 | 3782.00 | $ 56,730.00 |
| 2104.603 | ABANDON WATER MAIN | LIN. FT. | 15.00 | 4251.00 | $ 63,765.00 |
| 2104.618 | SALVAGE AND REINSTALL BRICK PAVERS | SQ. FT. | 50.00 | 15.00 | $ 750.00 |
| 2105.501 | COMMON EXCAVATION - ROAD | CU. YD. | 12.00 | 6950.00 | $ 83,400.00 |
| 2105.501 | COMMON EXCAVATION - SIDEWALK | CU. YD. | 12.00 | 0.00 | $ - |
| 2105.507 | SUBGRADE EXCAVATION | CU. YD. | 12.00 | 5227.00 | $ 62,724.00 |
| 2105.507 | ROCK EXCAVATION | CU. YD. | 200.00 | 50.00 | $ 10,000.00 |
| 2105.522 | SELECT GRANULAR BORROW (CV) | CU. YD. | 25.00 | 5227.00 | $ 130,675.00 |
| 2211.503 | AGGREGATE BASE (CV), CLASS 5 | CU. YD. | 30.00 | 3912.00 | $ 117,360.00 |
| 2231.604 | BITUMINOUS PATCH SPECIAL | SQ. YD. | 200.00 | 12.00 | $ 2,400.00 |
| 2357.502 | BITUMINOUS MATERIAL FOR TACK COAT | GALLON | 4.00 | 1373.00 | $ 5,492.00 |
| 2360.501 | TYPE SP12.5 WEARING COURSE MIXTURE (3,C) | TON | 77.25 | 3126.00 | $ 241,483.50 |
| 2360.501 | TYPE SP12.5 WEARING COURSE MIXTURE, DRIVEWAY (3,C) | TON | 125.00 | 174.00 | $ 21,750.00 |
| 2411.618 | MODULAR BLOCK RETAINING WALL | SQ. FT. | 60.00 | 200.00 | $ 12,000.00 |
| 2451.503 | GRANULAR BACKFILL (LV) | CU. YD. | 20.00 | 250.00 | $ 5,000.00 |
| 2451.507 | GRANULAR BEDDING (CV) | CU. YD. | 23.00 | 2856.00 | $ 65,688.00 |
| 2451.509 | AGGREGATE BEDDING (MOD.) (CV) | CU. YD. | 46.00 | 375.00 | $ 17,250.00 |
| 2503.511 | 4" PERFORATED TP PIPE DRAIN with SOCK | LIN. FT. | 7.00 | 8633.00 | $ 60,431.00 |

CITY OF CLOQUET, MINNESOTA
ENGINEERS ESTIMATE

Prospect Area Reconstruction
City Project No. 1091
Curb & Gutter, Storm Sewer, Bituminous Paving, and Utility Reconstruction.

| SPEC NO. | CONTRACT ITEMS | UNIT | UNIT PRICE | Quantity | Total |
|---|---|---|---|---|---|
| 2503.511 | 6" PVC PIPE SEWER, D3034 SDR 35 | LIN. FT. | 45.00 | 1659.00 | $ 74,655.00 |
| 2503.511 | 8" PVC PIPE SEWER, D3034, SDR 35 | LIN. FT. | 40.00 | 4021.00 | $ 160,840.00 |
| 2503.541 | 12" R.C. PIPE SEWER, DESIGN 3006 CLASS IV | LIN. FT. | 45.00 | 1260.00 | $ 56,700.00 |
| 2503.541 | 18" R.C. PIPE SEWER, DESIGN 3006 CLASS IV | LIN. FT. | 55.00 | 312.00 | $ 17,160.00 |
| 2503.541 | 24" R.C. PIPE SEWER, DESIGN 3006 CLASS IV | LIN. FT. | 75.00 | 1257.00 | $ 94,275.00 |
| 2503.601 | MISC. SEWER FITTINGS | LUMP SUM | 15000.00 | 1.00 | $ 15,000.00 |
| 2503.602 | 8"X6" PVC WYE BRANCH D3034 SDR35 | EACH | 300.00 | 72.00 | $ 21,600.00 |
| 2503.602 | CONNECT TO EXISTING SANITARY MANHOLE | EACH | 1500.00 | 1.00 | $ 1,500.00 |
| 2503.602 | CONNECT TO EXISTING SANITARY PIPE | EACH | 1000.00 | 2.00 | $ 2,000.00 |
| 2503.602 | CONNECT TO EXISTING STORM PIPE | EACH | 500.00 | 7.00 | $ 3,500.00 |
| 2503.602 | CONNECT TO EXISTING STORM PIPE (SPECIAL) | EACH | 1500.00 | 1.00 | $ 1,500.00 |
| 2503.602 | CONNECT TO EXISTING STORM STRUCTURE | EACH | 1500.00 | 1.00 | $ 1,500.00 |
| 2504.601 | TEMPORARY WATER SERVICE | LUMP SUM | 15000.00 | 1.00 | $ 15,000.00 |
| 2504.602 | CONNECT TO EXISTING WATERMAIN | EACH | 1500.00 | 12.00 | $ 18,000.00 |
| 2504.602 | 6" GATE VALVE AND BOX | EACH | 2000.00 | 1.00 | $ 2,000.00 |
| 2504.602 | 8" GATE VALVE AND BOX | EACH | 2000.00 | 8.00 | $ 16,000.00 |
| 2504.602 | 6" HYDRANT AND VALVE, 8' COVER | EACH | 6000.00 | 6.00 | $ 36,000.00 |
| **2504.602** | **0.75" CORPORATION STOP** | **EACH** | **200.00** | 69.00 | $ 13,800.00 |
| **2504.602** | **0.75" CURB STOP & BOX** | **EACH** | **500.00** | 69.00 | $ 34,500.00 |
| 2504.602 | ADJUST VALVE BOX | EACH | 500.00 | 16.00 | $ 8,000.00 |
| **2504.603** | **3/4" TYPE K COPPER PIPE** | **LIN. FT.** | **35.00** | 1750.00 | $ 61,250.00 |
| **2504.603** | **4" DIP WATERMAIN, CLASS 52** | **LIN. FT.** | **80.00** | 27.00 | $ 2,160.00 |
| **2504.603** | **6" DIP WATERMAIN, CLASS 52** | **LIN. FT.** | **80.00** | 103.00 | $ 8,240.00 |
| **2504.603** | **8" DIP WATERMAIN, CLASS 52** | **LIN. FT.** | **55.00** | 4404.00 | $ 242,220.00 |
| 2504.603 | 8" WATERMAIN HDPE (DIRECTIONAL DRILLED) | LIN. FT. | 100.00 | 70.00 | $ 7,000.00 |
| 2504.604 | 3" POLYSTYRENE INSULATION | SQ. YD. | 40.00 | 35.00 | $ 1,400.00 |
| 2504.608 | MISC. WATERMAIN FITTINGS | POUND | 9.00 | 1958.00 | $ 17,622.00 |
| 2506.501 | **CONSTRUCT DRAINAGE STRUCTURE, SPECIAL (2 X 3)** | LIN. FT. | 350.00 | 82.70 | $ 28,945.00 |
| 2506.501 | CONSTRUCT DRAINAGE STRUCTURE, DESIGN 4007 | LIN. FT. | 300.00 | 148.01 | $ 44,403.00 |
| 2506.501 | CONSTRUCT DRAINAGE STRUCTURE, DESIGN 4020-48 | LIN. FT. | 400.00 | 35.72 | $ 14,288.00 |
| 2506.501 | CONSTRUCT DRAINAGE STRUCTURE, DESIGN 4020-60 | LIN. FT. | 450.00 | 32.70 | $ 14,715.00 |
| 2506.516 | CASTING ASSEMBLIES | EACH | 750.00 | 58.00 | $ 43,500.00 |

CITY OF CLOQUET, MINNESOTA
ENGINEERS ESTIMATE

Prospect Area Reconstruction
City Project No. 1091
Curb & Gutter, Storm Sewer, Bituminous Paving, and Utility Reconstruction.

| SPEC NO. | CONTRACT ITEMS | UNIT | UNIT PRICE | Quantity | Total |
|---|---|---|---|---|---|
| 2506.522 | ADJUST FRAME AND RING CASTING | EACH | 1200.00 | 20.00 | $ 24,000.00 |
| 2506.522 | ADJUST FRAME AND RING CASTING (SPECIAL) | EACH | 2500.00 | 2.00 | $ 5,000.00 |
| 2521.501 | 4" CONCRETE SIDEWALK | SQ. FT. | 5.00 | 16420.00 | $ 82,100.00 |
| 2521.501 | 6" CONCRETE SIDEWALK | SQ. FT. | 7.00 | 1120.00 | $ 7,840.00 |
| 2531.501 | CONCRETE CURB AND GUTTER, DESIGN B618 | LIN. FT. | 15.00 | 9375.00 | $ 140,625.00 |
| 2531.501 | CONCRETE CURB AND GUTTER, DESIGN B624 | LIN. FT. | 60.00 | 50.00 | $ 3,000.00 |
| 2531.507 | 6" CONCRETE DRIVEWAY PAVEMENT | SQ. YD. | 50.00 | 1074.00 | $ 53,700.00 |
| 2531.507 | 8" CONCRETE DRIVEWAY PAVEMENT | SQ. YD. | 50.00 | 35.00 | $ 1,750.00 |
| 2531.603 | CONCRETE CURB DESIGN V (SPECIAL) | LIN. FT. | 75.00 | 10.00 | $ 750.00 |
| 2531.618 | TRUNCATED DOME | SQ. FT. | 35.00 | 227.00 | $ 7,945.00 |
| 2563.601 | TRAFFIC CONTROL | LUMP SUM | 7500.00 | 1.00 | $ 7,500.00 |
| 2573.502 | STABILIZED CONSTRUCTION EXIT | EACH | 1000.00 | 8.00 | $ 8,000.00 |
| 2573.503 | SILT FENCE, TYPE HI | LIN. FT. | 5.00 | 0.00 | $ - |
| 2573.530 | STORM DRAIN INLET PROTECTION | EACH | 150.00 | 70.00 | $ 10,500.00 |
| 2573.533 | SEDIMENT CONTROL LOG TYPE WOOD CHIP, COMPOST, OR R | LIN. FT. | 5.00 | 50.00 | $ 250.00 |
| 2573.550 | EROSION CONTROL SUPERVISOR | LUMP SUM | 3000.00 | 1.00 | $ 3,000.00 |
| 2574.508 | FERTILIZER TYPE 3 | POUNDS | 5.00 | 0.00 | $ - |
| 2574.525 | COMMON TOPSOIL BORROW (LV) | CU. YD. | 30.00 | 565.00 | $ 16,950.00 |
| 2575.504 | EROSION CONTROL BLANKET, CATEGORY 3 | SQ. YD. | 4.00 | 0.00 | $ - |
| 2575.504 | SOD, TYPE LAWN | SQ. YD. | 3.50 | 5031.00 | $ 17,608.50 |
| 2575.505 | SEEDING | ACRE | 10000.00 | 0.00 | $ - |
| 2575.508 | SEED, MIXTURE 25-141 | POUNDS | 10.00 | 0.00 | $ - |
| | | | | | |

| | |
|---|---|
| **Total Construction Cost** | **$2,656,348.00** |
| **Overhead (10%)** | **$ 265,000.00** |
| **Contingency (5%)** | **$ 128,652.00** |
| **Total Project** | **$3,050,000.00** |

# APPENDIX D
# Preliminary Special Assessment Roll

**2020 Prospect Avenue Area Street**
**Bituminous Pavement and Utility Reconstruction**
**City Contract No. 1091**

## Preliminary Project Assessment Roll

| | | | | | | Preliminary Assessment Amount | | | |
|---|---|---|---|---|---|---|---|---|---|
| PARCELID | PHYSADDR | OWNAME | TXADR1 | TXADR2 | Assessable Frontage | total assessment | Street Assessment | Water Assessment | Sewer Assessment |
| Preliminary Rate | | | | | | | $ 35.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0025 | 501 22ND ST | MILLER, ERIC J | 501 22ND ST | CLOQUET MN 55720 | 54.2 | $ 5,197.00 | $ 1,897.00 | $ 3,300.00 | $ - |
| 06-090-0030 | 2112 PROSPECT AVE | ANDERSON, DENNIS L & KATHRYN L | 2112 PROSPECT AVE | CLOQUET MN 55720 | 115.4 | $ 10,239.00 | $ 4,039.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0042 | | ANDERSON, DENNIS L & KATHRYN L | 2112 PROSPECT AVE | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-090-0062 | | ANDERSON, DENNIS L & KATHRYN L | 2112 PROSPECT AVE | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-090-0065 | | ANDERSON, DENNIS L & KATHRYN L | 2112 PROSPECT AVE | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-090-0037 | 2104 PROSPECT AVE | OLSON, KRIS M & CHERYL A | 2104 PROSPECT AVE | CLOQUET MN 55720 | 90.0 | $ 9,350.00 | $ 3,150.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0038 | 2102 PROSPECT AVE | KERSTING, PATTY L EKHOLM | 2102 PROSPECT AVE | CLOQUET MN 55720 | 88.2 | $ 9,287.00 | $ 3,087.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0060 | | KERSTING, THOMAS T & PATTY | 2102 PROSPECT AVE | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-090-0039 | 2106 PROSPECT AVE | SANDY, JON C & KELLY G | 2106 PROSPECT AVENUE | CLOQUET MN 55720 | 90.0 | $ 9,350.00 | $ 3,150.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0041 | 2108 PROSPECT AVE | RENTZ, ASHLEY A | 2108 PROSPECT AVE | CLOQUET MN 55720 | 83.4 | $ 9,119.00 | $ 2,919.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0460 | 2012 PROSPECT AVE | KORTIE, PAUL | 2012 PROSPECT AVE | CLOQUET MN 55720 | 64.9 | $ 8,471.50 | $ 2,271.50 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0500 | 2008 PROSPECT AVE | ARMSTRONG, BECKY K | 2008 PROSPECT AVE | CLOQUET MN 55720 | 64.9 | $ 8,471.50 | $ 2,271.50 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0522 | 520 20TH ST | HEDLUND, NICHOLAS S & AMBER N | 520 20TH ST | CLOQUET MN 55720 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0502 | | HEDLUND, NICHOLAS S & AMBER N | 520 20TH ST | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-090-0526 | 508 20TH ST | TAX FORFEIT - COUNTY ADMINISTERED | CARLTON COUNTY AUDITO | PO BOX 130 | 60.0 | $ 9,175.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0529 | | TAX FORFEIT - COUNTY ADMINISTERED | CARLTON COUNTY AUDITO | PO BOX 130 | 25.0 | | $ 875.00 | $ - | $ - |
| 06-090-0532 | 2002 PROSPECT AVE | GAUTHIER, GREGORY A | 2002 PROSPECT AVE | CLOQUET MN 55720 | 175.2 | $ 12,332.00 | $ 6,132.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0540 | 1827 DODDRIDGE AVE | JAKUBEK, DOMINIC A | 110 RESERVATION RD | CLOQUET MN 55720 | | $ 3,300.00 | $ - | $ 3,300.00 | $ - |
| 06-090-0560 | 2002 FAIRVIEW AVE | SAMARZIA, LIJAH & RENEE | 2002 FAIRVIEW AVE | CLOQUET MN 55720 | 23.2 | $ 7,012.00 | $ 812.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0520 | | SAMARZIA, LIJAH & RENEE | 2002 FAIRVIEW AVE | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-090-0620 | 1823 DODDRIDGE AVE | LEE, JACQUELINE M | 1823 DODDRIDGE AVE | CLOQUET MN 55720 | 65.0 | $ 5,575.00 | $ 2,275.00 | $ 3,300.00 | $ - |
| 06-090-0630 | 1817 FAIRVIEW AVE | WILL, GARY D | 1817 FAIRVIEW AVE | CLOQUET MN 55720 | 125.8 | $ 10,603.00 | $ 4,403.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0637 | 501 20TH ST | BIRNSTIHL, JUDY A | 501 20TH ST | CLOQUET MN 55720 | 42.5 | $ 7,652.08 | $ 1,452.08 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0635 | | BIRNSTIHL, JUDY A | 501 20TH ST | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-090-0642 | 1814 FAIRVIEW AVE | LAMIRANDE, DONALD J & LAURA J | 1814 FAIRVIEW AVE | CLOQUET MN 55720 | 127.1 | $ 10,648.50 | $ 4,448.50 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0644 | 1817 DODDRIDGE AVE | KOSKI TRUST, MARY ANNE | PO BOX 1074 | PROCTOR MN 55810 | | $ 3,300.00 | $ - | $ 3,300.00 | $ - |
| 06-090-0660 | 1815 FAIRVIEW AVE | KRAMER, MARVIN D & ANNA | 1815 FAIRVIEW AVE | CLOQUET MN 55720 | 62.4 | $ 9,465.50 | $ 2,184.00 | $ 3,300.00 | $ 2,900.00 |

## 2020 Prospect Avenue Area Street

**Bituminous Pavement and Utility Reconstruction**
**City Contract No. 1091**

### Preliminary Project Assessment Roll

| | | | | | | Preliminary Assessment Amount | | | |
|---|---|---|---|---|---|---|---|---|---|
| PARCELID | PHYSADDR | OWNAME | TXADR1 | TXADR2 | Assessable Frontage | total assessment | Street Assessment | Water Assessment | Sewer Assessment |
| Preliminary Rate | | | | | | | $ 35.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0640 | | KRAMER, MARVIN D & ANNA | 1815 FAIRVIEW AVE | CLOQUET MN 55720 | 30.9 | | $ 1,081.50 | $ - | $ - |
| 06-090-0680 | 1815 DODDRIDGE AVE | CURPHY, MARGARET M | 1815 DODDRIDGE AVE | CLOQUET MN 55720 | | $ 3,300.00 | $ - | $ 3,300.00 | $ - |
| 06-090-0722 | 602 18TH ST | CARLSON, ANNA M | 602 18TH ST | CLOQUET MN 55720 | 66.0 | $ 12,251.50 | $ 2,310.00 | $ 3,300.00 | $ 2,900.00 |
| 06-090-0702 | | CARLSON, ANNA M | 602 18TH ST | CLOQUET MN 55720 | 66.0 | | $ 2,310.00 | $ - | $ - |
| 06-090-0742 | | CARLSON, ANNA M | 602 18TH ST | CLOQUET MN 55720 | 40.9 | | $ 1,431.50 | $ - | $ - |
| 06-090-1280 | 1811 FAIRVIEW AVE | GLOWACKI, JANE M | 1811 FAIRVIEW AVE | CLOQUET MN 55720 | 57.6 | $ 2,016.00 | $ 2,016.00 | $ - | $ - |
| 06-125-0020 | 1404 PROSPECT AVE | MAKI, GARY S | 1404 PROSPECT AVE | CLOQUET MN 55720 | 46.9 | $ 4,941.50 | $ 1,641.50 | $ 3,300.00 | $ - |
| 06-125-0120 | 1414 PROSPECT AVE | MARSYLA, JOANNE A | 1414 PROSPECT AVE | CLOQUET MN 55720 | 43.2 | $ 8,468.00 | $ 1,512.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0140 | | MARSYLA, JOANNE A | 1414 PROSPECT AVE | CLOQUET MN 55720 | 21.6 | | $ 756.00 | $ - | $ - |
| 06-125-0160 | | MANTY, DANIEL & NANCY | 2874 LUND RD | CLOQUET MN 55720 | 21.6 | $ 8,713.00 | $ 756.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0180 | 1420 PROSPECT AVE | MANTY, DANIEL & NANCY | 2874 LUND RD | CLOQUET MN 55720 | 50.2 | | $ 1,757.00 | $ - | $ - |
| 06-125-0200 | 1500 PROSPECT AVE | WOJCIEHOWSKI, ARTHUR A | 1500 PROSPECT AVENUE | CLOQUET MN 55720 | 50.2 | $ 7,957.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0220 | 1502 PROSPECT AVE | YESSAK, KEBAN M & KAY A | 1502 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | $ 7,957.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0240 | 1506 PROSPECT AVE | LAFAVE, TONI M | 1506 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | $ 7,957.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0260 | 1510 PROSPECT AVE | STONEMARK PROPERTIES LLC | ATTN STONEMARK, DANIE | 272 MARKS RD | 50.2 | $ 7,957.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0280 | 1520 PROSPECT AVE | MARTINEAU, JENNIFER S | 1520 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | $ 7,957.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0300 | 1524 PROSPECT AVE | MASESSA, MICHAEL L & BECKY L | 4 W RIVERSIDE RD | ESKO MN 55733 | 50.2 | $ 7,957.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0500 | 1602 PROSPECT AVE | PRIEM, SHERRIE A & JASON R | 1602 PROSPECT AVE | CLOQUET MN 55720-223 | 50.2 | $ 7,957.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0520 | 1608 PROSPECT AVE | STROM, APRIL R | 1608 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | $ 7,957.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0540 | 1610 PROSPECT AVE | BROWN, JAMES B JR | 1610 PROSPECT AVE | CLOQUET MN 55720 | 100.4 | $ 9,714.00 | $ 3,514.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0640 | 1720 PROSPECT AVE | MICHAUD, NICHOLAS G | 1720 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | $ 13,228.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0580 | | MICHAUD, NICHOLAS G | 1720 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | | $ 1,757.00 | $ - | $ - |
| 06-125-0600 | | MICHAUD, NICHOLAS G | 1720 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | | $ 1,757.00 | $ - | $ - |
| 06-125-0620 | | MICHAUD, NICHOLAS G | 1720 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | | $ 1,757.00 | $ - | $ - |
| 06-125-0680 | 1724 PROSPECT AVE | BOYER, JANE A | 1724 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | $ 9,714.00 | $ 1,757.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0660 | | BOYER, JANE A | 1724 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | | $ 1,757.00 | $ - | $ - |
| 06-125-0720 | | HENDRICKSON, MICHAEL A & SHAUNA M | 1728 PROSPECT AVE | CLOQUET MN 55720 | 52.2 | $ 3,584.00 | $ 1,827.00 | $ - | $ - |
| 06-125-0700 | 1728 PROSPECT AVE | HENDRICKSON, MICHAEL A & SHAUNA M | 1728 PROSPECT AVE | CLOQUET MN 55720 | 50.2 | | $ 1,757.00 | $ - | $ - |
| 06-160-0560 | 447 18TH ST | HOLMAN, MARK G | 447 18TH ST | CLOQUET MN 55720 | 50.0 | $ 1,750.00 | $ 1,750.00 | $ - | $ - |
| 06-160-0580 | 1914 SELMSER AVE | PROSEN PROPERTIES, LLC | 82 CHURCH RD | ESKO MN 55733 | 50.1 | $ 1,753.50 | $ 1,753.50 | $ - | $ - |
| 06-160-0660 | 413 20TH ST | MDJ, LLC | PO BOX 3587 | DULUTH MN 55803 | 56.1 | $ 8,163.50 | $ 1,963.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-0680 | 419 20TH ST | ROSS, DALE & GAIL | 419 20TH ST | CLOQUET MN 55720 | 72.1 | $ 8,723.50 | $ 2,523.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-0700 | 425 20TH ST | HANHELA, ASHLEY M | 425 20TH ST | CLOQUET MN 55720 | 72.2 | $ 8,727.00 | $ 2,527.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-0720 | 429 20TH ST | FISH, ROBBIN R | 429 20TH ST | CLOQUET MN 55720 | 66.1 | $ 8,513.50 | $ 2,313.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-0740 | 435 20TH ST | ROHDE, AMBER | 435 20TH ST | CLOQUET MN 55720 | 67.1 | $ 8,548.50 | $ 2,348.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-0760 | 443 20TH ST | JUREK, ANTHONY F & MARJORIE | 443 20TH ST | CLOQUET MN 55720 | 67.2 | $ 8,552.00 | $ 2,352.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-0780 | 447 20TH ST | JUGANARU, ROMELA | 447 20TH ST | CLOQUET MN 55720 | 68.4 | $ 8,594.00 | $ 2,394.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1060 | 446 18TH ST | SWANSON, DARLA J | 446 18TH STREET | CLOQUET MN 55720 | 39.9 | $ 1,396.50 | $ 1,396.50 | $ - | $ - |
| 06-160-1340 | 414 21ST ST | KITTS, MICHAEL A | 414 21ST ST | CLOQUET MN 55720 | 50.0 | $ 7,950.00 | $ 1,750.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1280 | | KITTS, MICHAEL A | 414 21ST ST | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |

## 2020 Prospect Avenue Area Street

**Bituminous Pavement and Utility Reconstruction**
**City Contract No. 1091**

### Preliminary Project Assessment Roll

| | | | | | | Preliminary Assessment Amount | | | |
|---|---|---|---|---|---|---|---|---|---|
| PARCELID | PHYSADDR | OWNAME | TXADR1 | TXADR2 | Assessable Frontage | total assessment | Street Assessment | Water Assessment | Sewer Assessment |
| Preliminary Rate | | | | | | | $ 35.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1360 | 416 21ST ST | LIND, KURT | 416 21ST ST | CLOQUET MN 55720 | 60.1 | $ 8,303.50 | $ 2,103.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1300 | | LIND, KURT | 416 21ST ST | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-160-1380 | 2102 SELMSER AVE | MARZOLF, MARIA E | 2102 SELMSER AVE | CLOQUET MN 55720 | 33.3 | $ 1,165.50 | $ 1,165.50 | $ - | $ - |
| 06-160-1400 | 412 21ST ST | ERICKSON, PHILIP B | 412 21ST ST | CLOQUET MN 55720 | 100.0 | $ 9,700.00 | $ 3,500.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1440 | 411 21ST ST | DEAN, JEFFREY B | 411 21ST ST | CLOQUET MN 55720 | 100.0 | $ 9,700.00 | $ 3,500.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1460 | 2010 SELMSER AVE | FOSS, LOUIS H | 2010 SELMSER AVE | CLOQUET MN 55720 | 70.0 | $ 8,650.00 | $ 2,450.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1420 | | FOSS, LOUIS H | 2010 SELMSER AVE | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| 06-160-1500 | 2002 SELMSER AVE | WALLIN, DAVID J & ASHLEY M | 2002 SELMSER AVE | CLOQUET MN 55720 | 46.1 | $ 1,613.50 | $ 1,613.50 | $ - | $ - |
| 06-160-1580 | 416 20TH ST | GORNICK, MATT J | 416 20TH ST | CLOQUET MN 55720 | 75.1 | $ 8,828.50 | $ 2,628.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1600 | 422 20TH ST | ROSS, BARBARA J | 422 20TH ST | CLOQUET MN 55720 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1620 | 426 20TH ST | ANDERSON, ROMAINE J & FRANCES K | 426 20TH ST | CLOQUET MN 55720 | 65.1 | $ 8,478.50 | $ 2,278.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1640 | 430 20TH ST | BROWN, SCOTT M & BONNIE Z | 430 20TH ST | CLOQUET MN 55720 | 66.1 | $ 8,513.50 | $ 2,313.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1660 | 436 20TH ST | NIEHORSTER, GARY M & LORIJEANNE A | 436 20TH ST | CLOQUET MN 55720 | 67.1 | $ 8,548.50 | $ 2,348.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1680 | 440 20TH ST | MANTHEY, GERALD L | 102 9TH ST | CLOQUET MN 55720 | 67.1 | $ 8,548.50 | $ 2,348.50 | $ 3,300.00 | $ 2,900.00 |
| 06-160-1700 | 448 20TH ST | HUGHES, GARY D ETUX | 448 20TH ST | CLOQUET MN 55720 | 134.1 | $ 10,893.50 | $ 4,693.50 | $ 3,300.00 | $ 2,900.00 |
| 06-195-0100 | 1611 PROSPECT AVE | NELSON, SAMANTHA | 1611 PROSPECT AVE | CLOQUET MN 55720 | 37.7 | $ 4,219.50 | $ 1,319.50 | $ - | $ 2,900.00 |
| 06-195-0120 | | GROVER, ROBERT ALAN | 224 E HIGHWAY 61 | ESKO MN 55733 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-230-3100 | 425 22ND ST | ESALA, JUDY A | PO BOX 8117 | MADEIRA BEACH FL 3373 | 33.4 | $ 1,169.00 | $ 1,169.00 | $ - | $ - |
| 06-265-0040 | 2117 KELLY AVE | COLLELO, RONALD L | 2117 KELLY AVE | CLOQUET MN 55720 | 33.3 | $ 9,696.50 | $ 1,165.50 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0020 | | COLLELO, RONALD L & JOAN M | 2117 KELLY AVE | CLOQUET MN 55720 | 33.3 | | $ 1,165.50 | $ - | $ - |
| 06-265-0060 | | COLLELO, RONALD L & JOAN M | 2117 KELLY AVE | CLOQUET MN 55720 | 33.3 | | $ 1,165.50 | $ - | $ - |
| 06-265-0100 | 2101 KELLY AVE | BATES, GENE H | 2101 KELLY AVE | CLOQUET MN 55720 | 33.3 | $ 8,531.00 | $ 1,165.50 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0080 | | BATES, GENE H | 2101 KELLY AVE | CLOQUET MN 55720 | 33.3 | | $ 1,165.50 | $ - | $ - |
| 06-265-0120 | 2102 KELLY AVE | WILLEMARCK, NICHOLAS D & KATELYNN E | 2102 KELLY AVE | CLOQUET MN 55720 | 102.1 | $ 9,773.50 | $ 3,573.50 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0140 | 2104 KELLY AVE | LINDQUIST, GORDON A & BONNIE | 2104 KELLY AVE | CLOQUET MN 55720 | 60.1 | $ 8,303.50 | $ 2,103.50 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0160 | 2108 KELLY AVE | MYLLYMAA, DAVID E JR & SUSAN L | 505 JASPER ST | CLOQUET MN 55720 | 60.1 | $ 8,303.50 | $ 2,103.50 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0180 | 2110 KELLY AVE | BLASKOWSKI, AMANDA S & DAVID J | 2110 KELLY AVE | CLOQUET MN 55720 | 60.1 | $ 8,303.50 | $ 2,103.50 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0200 | 2114 KELLY AVE | WALSH, LORI | 2114 KELLY AVE | CLOQUET MN 55720 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0220 | 2120 KELLY AVE | DAVIDSON, DELVIN | 2120 KELLEY AVE | CLOQUET MN 55720 | 60.1 | $ 8,303.50 | $ 2,103.50 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0240 | 2122 KELLY AVE | SLOAN, DALE & SUSAN | 2122 KELLY AVE | CLOQUET MN 55720 | 60.1 | $ 8,303.50 | $ 2,103.50 | $ 3,300.00 | $ 2,900.00 |
| 06-265-0260 | 429 22ND ST | CALVERLY, DELORES J | 429 22ND ST | CLOQUET MN 55720 | 60.1 | $ 2,103.50 | $ 2,103.50 | $ - | $ - |
| 06-310-0020 | 437 22ND ST | BERGSTROM, LEROY H & CAROL A | 437 22ND ST | CLOQUET MN 55720 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-310-0040 | 2119 PROSPECT AVE | SHEARER, JAMIE | 2119 PROSPECT AVENUE | CLOQUET MN 55720 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-310-0060 | 2117 PROSPECT AVE | RUHNKE, ANGEL A | 2117 PROSPECT AVE | CLOQUET MN 55720 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-310-0100 | 2109 PROSPECT AVE | HOOVER, BRIAN L & LYNNE M | 2109 PROSPECT AVE | CLOQUET MN 55720 | 60.0 | $ 10,400.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |

2020 Prospect Avenue Area Street

**Bituminous Pavement and Utility Reconstruction**

**City Contract No. 1091**

## Preliminary Project Assessment Roll

| | | | | | | Preliminary Assessment Amount | | | |
|---|---|---|---|---|---|---|---|---|---|
| PARCELID | PHYSADDR | OWNAME | TXADR1 | TXADR2 | Assessable Frontage | total assessment | Street Assessment | Water Assessment | Sewer Assessment |
| Preliminary Rate | | | | | | | $ 35.00 | $ 3,300.00 | $ 2,900.00 |
| 06-310-0080 | | HOOVER, BRIAN L & LYNNE M | 2109 PROSPECT AVE | CLOQUET MN 55720 | 60.0 | | $ 2,100.00 | $ - | $ - |
| 06-310-0120 | 2105 PROSPECT AVE | KOLODGE, KERRY E | 2105 PROSPECT AVE | CLOQUET MN 55720 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-310-0140 | 2103 PROSPECT AVE | SPLETT, ELMER W & KAREN L | 2103 PROSPECT AVE | CLOQUET MN 55720 | 60.0 | $ 8,300.00 | $ 2,100.00 | $ 3,300.00 | $ 2,900.00 |
| 06-310-0160 | 2101 PROSPECT AVE | CONLEY, LAURIE J | 2101 PROSPECT AVE | CLOQUET MN 55720 | 95.7 | $ 9,549.50 | $ 3,349.50 | $ 3,300.00 | $ 2,900.00 |
| 06-405-0200 | 436 17TH ST | MINKKINEN, DALE M & WYLMA J | 436 17TH ST | CLOQUET MN 55720 | 34.6 | $ 7,411.00 | $ 1,211.00 | $ 3,300.00 | $ 2,900.00 |
| 06-125-0080 | 510 14TH ST | BIERI, SCOT R & GARI J | 510 14TH ST | CLOQUET MN 55720 | | $ 3,300.00 | $ - | $ 3,300.00 | $ - |
| 06-405-0160 | 434 17TH ST | SMITH, ROBERT A & SHEILA K | 434 17TH STREET | CLOQUET MN 55720 | | $ 3,300.00 | $ - | $ 3,300.00 | $ - |
| 06-405-0180 | | SMITH, ROBERT A & SHEILA K | 434 17TH STREET | CLOQUET MN 55720 | | $ - | $ - | $ - | $ - |
| | | | | Total | 5741.6 | $ 639,420.58 | $ 200,920.58 | $ 244,200.00 | $ 194,300.00 |

# APPENDIX E
# Safe Routes to Schools
# Project Sheets

# PROJECT SHEET #1

## EAST/NORTH CONNECTIONS

(Engineering Strategy)

### Goal: Enhance infrastructure leading to the east side of campus to provide safe access for students walking or biking.*

**Strategy:** In 2022/23, enhance school accessibility for pedestrians and bicyclists along the 22nd Street corridor.

> **Action Step:** Construct a concrete sidewalk on the west side of street from Washington Avenue to Prospect Avenue.

**Strategy:** Determine the need for infrastructure connecting the 22nd Street corridor to the school along the north side of the softball field.

> **Action Step:** Ensure gates are open along the route for pedestrians, and monitor the number of students traveling this route, taking note of which school entrance they use.
>
> **Action Step:** Decide whether a paved trail would increase the number of pedestrians using this route.

**Strategy:** Continue AM and PM crossing guard program at the intersection of Sahlman Avenue and 22nd Street (north leg).

**Strategy:** In 2024/25, enhance safety for pedestrians and bicyclists along the 27th Street corridor.

> **Action Step:** Construct a concrete sidewalk along the street corridor.

**Strategy:** In 2024/25, enhance safety for pedestrians and bicyclists along the Sahlman Avenue corridor.

> **Action Step:** Construct a concrete sidewalk along the street corridor.

# PROJECT SHEET #3

## WEST/NORTH CONNECTIONS

(Engineering Strategy)

### Goal: Enhance infrastructure leading to the west side of campus to provide safe access for students walking or biking.*

**Strategy:** In 2019, enhance school accessibility for pedestrians and bicyclists along the 18th Street corridor.

**Strategy:** Continue crossing guard program at the intersection of Wilson Ave and 18th Street (north leg).

**Strategy:** Consider traffic control measures during high traffic periods at the 18th Street entrance to the high school student parking lot.

**Strategy:** In 2021, enhance safety for pedestrians and bicyclists along the Prospect Avenue corridor.

> **Action Step:** Construct a concrete sidewalk along the street from 14th Street to 22nd Street.

**Strategy:** By 2024, enhance school accessibility for pedestrians and bicyclists along Wilson Avenue.

> **Action Step:** Seek funding opportunities for a SRTS-related sidewalk project.
>
> **Action Step:** Construct a concrete sidewalk on the north side of street from the parking lot entrance to St. Paul's Evangelical Lutheran Church to the intersection with 18th Street.

**Strategy:** By 2024, enhance school accessibility for pedestrians and bicyclists along Sahlman Avenue.

> **Action Step:** Seek funding opportunities for a SRTS-related sidewalk project.
>
> **Action Step:** Construct a concrete sidewalk on the north side of street from 14th to 18th Street.

# MAYOR'S PROCLAMATION

City of Cloquet

**WHEREAS,** it is the intention of the Mayor and Cloquet City Council to focus attention on noteworthy occasions and individuals; and

**WHEREAS,** tonight, the Mayor and City Council wish to recognize and congratulate the Cloquet-Esko-Carlton Girls Ice Hockey Team on their 2019-2020 season in Minnesota's State High School League; and

**WHEREAS,** the Cloquet-Esko-Carlton Girls Ice Hockey Team made history by securing their Section 7A Championship crown and first State Tournament since 2009, capping the season with a 3-2 victory over the Proctor-Hermantown Mirage; and

**WHEREAS,** the hard work, dedication, sportsmanship, talent and exceptional team chemistry of the Cloquet-Esko-Carlton Girls Ice Hockey Team enabled these athletes to earn the program's Section Championship title; and

**WHEREAS,** their success is a testament to the collaborative spirit and commitment of the entire Cloquet-Esko-Carlton Girls Hockey Team family, which includes the players, coaches, parents, and board members; and

**WHEREAS,** the Mayor and Cloquet City Council are proud to honor each of the players on this year's roster, and give special thanks to the team's coaches for their work with commitment to these young women, as well as their continued support of youth activities in the Cloquet community.

**NOW, THEREFORE, I, ROGER MAKI,** by virtue of the authority vested in me as Mayor of the City of Cloquet, County of Carlton, State of Minnesota, do hereby formally congratulate the

## *2019-2020 CLOQUET-ESKO-CARLTON GIRLS ICE HOCKEY TEAM*

And encourage all citizens to join with me and the City Council in congratulating the players, coaches, parents and league leadership, on their Championship season, and in wishing them continued success in their future seasons.

CLOQUET

Roger Maki, Mayor
City of Cloquet

CLOQUET

ADMINISTRATIVE OFFICES
101 14th Street Cloquet, MN 55720-1903
Phone: 218.879.3347 Fax: 218.879.6555
www.cloquetmn.gov

# REQUEST FOR COUNCIL ACTION

| | |
|---|---|
| To: | Mayor and City Council |
| From: | James Barclay/Caleb Peterson |
| Reviewed By: | Tim Peterson, City Administrator TCP |
| Date: | March 3, 2020 |

**ITEM DESCRIPTION:** Library Addition Change Order #3, ARS Fire Alarm Submittal and Proposal for Additional Engineering & Architectural Services

**Proposed Action**

Staff recommends that the City Council move to approve change order #3 to City Contract 1093, the Fire Alarm Proposal from ARS and the Additional Services Request from Meyer Group Architecture.

**Background/Overview**

Council awarded a contract for construction of the library addition to The Boldt Company in September 2019. Unfortunately, the first round of bids came in significantly over initial estimates and a second round of bids was necessary to bring costs closer to budget. Based on the low bid of $2,166,900 from Boldt we ended up with a total project cost of $2,535,021. This total cost included direct bid items for services not included in the construction bid such as low voltage cable wiring, security system purchase architect fees and commission services through McKinstry Industries. The total project cost also includes a contingency $67,447 for unforeseen construction expenses.

Through the process of Value Engineering, City staff, working closely with the Architect and The Boldt Company, was able to decrease the overall cost of construction by enough to add the previously deleted items (circulation desk, display cabinets and flooring for existing library) back into the project.

*Change Order #3* – This change order deletes the landscaping component from The Boldt Company's contract lowering the cost of construction by $15,975 and provides a credit for interior door work of $1,000. During the on-going construction the Library Director has worked with the Carlton County Soil and Water Conservation District to secure a grant for a rain garden on the library grounds. The remaining landscaping will be the narrow patch of land between the sidewalk and the new addition running along 14th Street. This will be seeded by City staff. ***Net decrease in cost: $16,975.***

*Fire Alarm Proposal* – One direct bid item that was overlooked during the initial design/bid process was purchase and installation of the Library Fire Alarm system. Working through our Architect we asked for proposals from Northland Fire and ARS. Northland Fire was unable to provide a bid at this time, but the City did receive one from ARS. ***Net increase in cost: $12,210***

*Addition and Renovation Proposal for Additional Engineering & Architectural Service* – Meyer Group has requested an increase in Architectural and Engineering Fees associated mostly with the Value Engineering (VE) process that includes rebidding some work contracts for the City and re-engineering and or designing components of the library to facilitate both the VE process and implementation. ***Net increase in cost: $24,000***

**Policy Objectives**
N/A

**Financial/Budget/Grant Considerations**
The original contract price for this project was $2,166,900. Change Order No. 1 deducted $107,708 from the contract while Change Order No. 2 added $128,500. By rebidding the low voltage network cabling associated with the addition, staff was able to attain a further project savings of $59,160 which is outside of the construction contract but still a net saving to the project budget. Approval of the additional changes outlined above would result in no net increase in the budget but would encroach into the $67,477 reserve by $13,734.89. *Note: The City will still have **$53,742.43** reserved in budget contingency for any future change orders deemed necessary.*

**Advisory Committee/Commission Action**
None.

**Supporting Documents Attached**
- Change Order #3
- ARS Fire Alarm Submittal
- Meyer Group Architecture Change Submittal

BOLDT | BEYOND 125 YEARS

The Boldt Company
1001 Tall Pine Lane
PO Box 0287
Cloquet, MN 55720-0287

218-879-1293 phone
www.boldt.com

February 20, 2020

James Barclay
City of Cloquet
104 14th Street
Cloquet, MN 55720

Re: Cloquet Library Addition & Renovation – CO#003 Landscaping and Misc.

Dear Mr. Barclay:

The following is a cost breakdown for Change Order #003 for your review and response. This change order is for The Boldt Company to remove the Landscaping contract from our contract and deduct for door 124 frame.

| | | |
|---|---|---|
| **Contract Value from CO #002** | **$** | **2,187,692.00** |
| Deduct Landscaping Scope of Work | ($ | 15,975.00) |
| Door 124 Credit | ($ | 1,000.00) |
| **New Contract Value** | **$** | **2,170,717.00** |
| | | |
| **Total (Add/Deduct)** | **($** | **16,975.00)** |

The Boldt Company proposes to complete the above mentioned scopes of work required for the Cloquet Library Addition & Renovation project for the **Deduct** amount of Sixteen Thousand Nine Hundred Seventy-Five Dollars ($16,975.00).

Please call if you have any questions.

Sincerely,

Tim Schmidt
The Boldt Company - Project Manager

Dev. 32

**TMIC LANDSCAPING, LLC**

3521 Brevator Rd.
Cloquet, MN 55720
Tel: (218) 428-3802
Fax: (218) 879-3472

# Estimate

| Date | Estimate # |
|---|---|
| 8/28/2019 | 1541 |

| Name / Address |
|---|
| Oscar J. Boldt Construction<br>1001 Tall Pine Lane<br>Cloquet, MN 55720<br>879-1293 |

| P.O. No. | Project |
|---|---|
| | Cloquet Library Addition & Reno |

| Description | Qty | Rate | Total |
|---|---|---|---|
| Silt Fence Type PA - LF | 400.00 | 4.00 | 1,600.00 |
| Sod - SF | 10,500.00 | 0.75 | 7,875.00 |
| Holmstrup Arbovitae - 4' HT - #7 cont. | 10.00 | 350.00 | 3,500.00 |
| New deciduous/evergreen trees instead of relocating existing trees - 2.5" cal. B&B | 4.00 | 750.00 | 3,000.00 |
| "NO TOPSOIL THIS BID" | | | |
| If you have questions please call Tom Micklewright at 218-428-3802. | | **Total** | $15,975.00 |

**Signature** _____

ARS

4330 West 1st Street Suite B • Duluth, MN 55807 • Phone: 218-628-3323

**Project Name: Cloquet Public Library**

**Description: Fire Alarm Proposal**

**Specification Section: n/a**

**Date:** 12/31/19 **Addenda's Received:** 0

I am pleased to submit the following quotation for your consideration.
ARS To:

- Furnish and install Honeywell Firelite ES-50X addressable fire alarm control panel
- Furnish and install (8) Firelite Addressable smoke detectors
- Furnish and install (2) Firelite Addressable heat detector
- Furnish and install Firelite remote LCD text annunciator
- Furnish and install (17) System Sensor wall mount horn strobes
- Furnish and install (9) System Sensor wall mount strobe only
- Furnish and install (1) System Sensor weather proof horn strobe next to FDC
- Furnish and install (2) Firelite addressable monitor modules to monitor sprinkler flow and tamper switches
- Furnish and install Firelite addressable duct smoke detector with relay for unit shutdown
- Demolish existing fire alarm system and devices
- Configure fire alarm panel to report alarms through existing hybrid alarm panel

Others To:

- Furnish and install all back boxes for wall mount devices
- Furnish and install conduit pathway from existing library space back to accessible ceiling for fire alarm devices
- Configure HVAC Control for unit shutdown from provided control relay
- Coordinate shutdown and removal of existing fire alarm panel (may need to close to the public for the day)
- Provide painting and patching

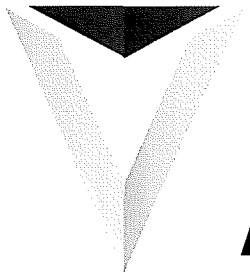
**Quotation: $ 12,210**
Applicable tax and freight included.
**Terms:** Our proposal is good for 30 days, based on acceptance of delivery within one year.

Please, feel free to contact me with any questions at (218) 310-6482 or (218) 624-6525.

Sincerely,

**ARS/HUNT ELECTRIC CORPORATION**
Cody Privette

Cody Privette
PM/Estimator
*CP/AA*



# ARS

## Cloquet Public Library Fire Alarm Submittal

**Hunt Electric Corporation**
4330 W. 1st Street, Suite B Duluth, MN 55807
Phone: 218.628.3323 Fax: 218.624.7485

# ES-50X

## Intelligent Addressable FACP with Communicator

FIRE-LITE ALARMS by Honeywell

**Addressable Fire Alarm Control Panels**

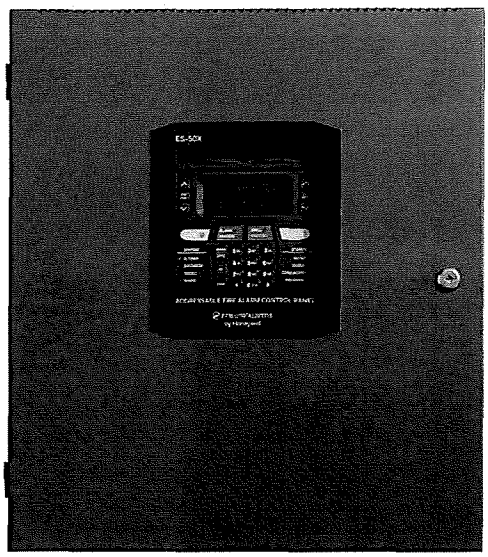
## General

The **ES-50X** is the latest intelligent addressable fire alarm control panel (FACP) from Fire•Lite Alarms and is a direct replacement for the MS-9050UD/LS. The ES-50X comes with a pre-installed communi-cator and supports up to 50 addressable devices in any combination of detectors or modules. With an extensive list of powerful features, the ES-50X programs just like Fire•Lite's other addressable panels, yet fits into applications previously served only by conventional panels.

The pre-installed IPOTS-COM is a dual technology (POTS and IP) communicator. The POTS transmits system status (alarms, troubles, AC loss, etc.) to a Central Station via the public switched telephone network. The IP communicator's internet monitoring capability sends alarm signals over the Internet saving the monthly cost of two dedicated business telephone lines. Although not required, the secondary telephone line may be retained providing backup communication over the public switched telephone line. Optional cellular reporting is available using the CELL-MOD or CELL-CAB-FL.

Remote and local programming of the control panel is possible using the FS-Tools Upload/Download utility. Programming databases can be uploaded/downloaded via the panel's USB port (and USB cable) or via an ethernet connection using the IPOTS-COM communicator. The USB port also allows for the download or upload of the entire program, history file, walk-test data, current status and system voltages by means of a USB flash drive.

The power supply and all electronics are contained on a circuit board supported on a new quick install chassis and housed in a metal cabinet. Available accessories include local and remote upload/download software, remote annunciators, and reverse polarity/city box transmitter (4XTMF).



## Features

- Listed to UL Standard 864, 10th edition
- Pre-installed IPOTS-COM Ethernet IP and POTS (Plain Old Telephone Service) Central Station Communicator
- Optional CELL-MOD or CELL-CAB-FL GSM Central Station Communicator over AlarmNet®
- Compatible with SWIFT® wireless devices
- Auto-programming (learn mode) reduces installation time. Reports two devices set to the same address
- Two independently programmable, built-in Style Z (Class A) or Style Y (Class B) NAC circuits
- Selectable strobe synchronization for System Sensor, Wheelock, and Gentex devices
- Notification Appliance Circuit End of Line resistor matching
- Four programmable function keys for ease of maintenance
- Two programmable relays and one fixed trouble relay
- Built-in Programmer
- Integral 80-character LCD display with backlighting
- Real-time clock/calendar with automatic daylight savings control
- History file with 1,000 event capacity
- Addressable sounder base
- Multi-criteria detector (smoke, heat, CO) with programmable response
- Control module delay timer
- Automatic detector sensitivity testing (NFPA 72 compliant)
- Automatic device type-code verification
- Point trouble identification
- Waterflow selection per module point
- Alarm verification selection per detector point
- Maintenance alert warns when smoke detector dust accumulation is excessive
- One-person audible or silent walktest with walktest log & printout
- System alarm verification selection per detector point
- PAS (Positive Alarm Sequence) and Pre-signal per point (NFPA 72 compliant)
- Up to 16 ANN-BUS annunciators- 8 per each ANN-Bus
- Remote Acknowledge, Alarm Silence, Reset and Drill via addressable modules or remote annunciator
- Upload/Download of program and data via USB with optional FS-Tools Programming Utility

### *SLC COMMUNICATION LOOP*

- Supports LiteSpeed™ and CLIP protocols
- SLC operates up to 10,000 ft. (3,000 m) in LiteSpeed mode with twisted, unshielded wire
- Single addressable SLC loop which meets NFPA Class B and Class A requirements
- 50 addressable device capacity (any combination of addressable detectors and modules)
- Compatible with Fire•Lite's addressable devices (refer to the *SLC Wiring Manual*)

### *NOTIFICATION APPLIANCE CIRCUITS (NACS)*

- Two independently programmable output circuits. Circuits can be configured for the following outputs:
  - **Style Y** (Class B)
  - **Style Z** (Class A)
- Silence Inhibit and Autosilence timer options
- Continuous, March Time, Temporal, or California code for main circuit board NACs with two-stage capability
- Selectable strobe synchronization per NAC
- 2.5 A special application, 250mA regulated, total power for NACs

***NOTE:*** *Maximum or total 24VDC system power shared between all NAC circuits and the ANN-BUS is 2.7 A*

### *PROGRAMMING AND SOFTWARE*

- Autoprogramming (learn mode) reduces installation time

- Custom English labels (per point) may be manually entered or selected from an internal library file
- Two programmable Form-C relay outputs
- 50 software zones
- Continuous fire protection during online programming
- Program Check automatically catches common errors not linked to any zone or input point
- **OFFLINE PROGRAMMING:** Create the entire program in your office using FS-Tools, a Windows®-based software package, and upload/download system programming locally. Offline programming requires an ethernet connection. FS-Tools is available on www.firelite.com.

## User interface

### *LED INDICATORS*

- Fire Alarm (red)
- CO Alarm (red)
- AC Power (green)
- Supervisory (yellow)
- Trouble (yellow)
- Ground fault (yellow)
- Battery fault (yellow)
- Disabled (yellow)
- Maintenance (yellow)
- Communication (yellow)
- Alarm Silenced (yellow)
- F1-F4 Programmable Function Keys (yellow)

### *KEYPAD*

- 16 key alpha-numeric pad
- Acknowledge
- Alarm Silence
- Drill (Manual Evacuate)
- Four (4) programmable function keys
- Reset (lamp test)

## Product Line Information

**ES-50X:** Addressable Fire Alarm Control Panel with one SLC loop. Includes main circuit board with display, pre-installed IPOTS-COM communicator, chassis with transformer, backbox with door, plastic bag containing screws, cables, key, etc. *(For ES-50XC, refer to DF-60954.)*

**FS-Tools:** Programming software for Windows®-based PC computer. Available for download at www.firelite.com.

**CELL-CAB-FL/CELL-MOD:** Optional GSM communicators.

**IPOTS-COM:** Dual technology (POTS and IP) communicator. (replacement board)

**DP-ES-R:** Optional dress panel for the ES-50X.

**TR-CE:** Optional trim ring for semi-flush mounting.

**BB-2F:** Optional cabinet for one or two modules.

**BB-6F:** Optional cabinet for up to six modules mounted on CHS-6 chassis.

**BB-26:** Battery backbox, holds up to two 25 AH batteries & CHG-75.

**BB-55F:** Battery box, houses two 55 AH batteries

**CHS-6:** Chassis, mounts up to six multi-modules in a BB-6F cabinet.

**CHG-75:** Battery charger for lead-acid batteries with a rating of 25 to 75 AH.

**CHG-120F:** Remote battery charging system for lead-acid batteries with a rating of 55 to 120 AH. Requires additional BB-55F for mounting.

**BAT Series:** Batteries, see data sheet DF-52397.

**PRN Series:** UL listed compatible event printer. Uses tractor-fed paper.

### *OPTIONAL MODULES*

**4XTMF Reverse Polarity Transmitter Module:** Provides a supervised output for local energy municipal box transmitter, alarm and trouble. Includes a disable switch and disable trouble LED.

### *COMPATIBLE ANNUNCIATORS*

**ANN-80:** Remote, red LCD annunciator mimics the information displayed on the FACP LCD display. Recommended wire type is unshielded.

**ANN-100:** Remote LCD annunciator mimics the information displayed on the FACP LCD display. Recommended wire type is unshielded. For use in FM applications only.

**ANN-I/O:** LED Driver Module provides connections to a user supplied graphic annunciator. (See DF-52430.)

**ANN-LED:** Annunciator Module provides three LEDs for each zone: Alarm, Trouble, and Supervisory. Ships with red enclosure. *(See DF-60241.)*

**ANN-RLED:** Provides alarm (red) indicators for up to 30 input zones or addressable points. *(See DF-60241.)*

**ANN-RLY:** Relay Module provides 10 programmable Form-C relays. Can be mounted inside the cabinet. (See DF-52431.)

**ANN-S/PG:** Serial/Parallel Printer Gateway module provides a connection for a serial or parallel printer. *(See DF-52429.)*

### *ADDRESSABLE DEVICES*

*All feature a polling LED and rotary switches for addressing.*

**SD365:** Addressable low-profile photoelectric smoke detector. LiteSpeed only.

**SD365-IV:** Addressable low-profile photoelectric smoke detector. Ivory. LiteSpeed and CLIP mode.

**SD365T:** Addressable low-profile photoelectric smoke detector with thermal sensor. LiteSpeed only.

**SD365T-IV:** Addressable low-profile photoelectric smoke detector with thermal sensor. Ivory. LiteSpeed and CLIP mode.

**SD365R:** Remote test capable addressable photoelectric smoke detector for use with DNR(W) duct detector housing. LiteSpeed only.

**SD365R-IV:** Remote test capable addressable photoelectric smoke detector for use with DNR(W) duct detector housing. Ivory. LiteSpeed and CLIP mode.

**H365:** Low-profile 135°F fixed thermal sensor. LiteSpeed only.

**H365-IV:** Low-profile 135°F fixed thermal sensor. Ivory. LiteSpeed and CLIP mode.

**H365R:** Low-profile, intelligent, rate-of-rise thermal sensor. LiteSpeed only.

**H365R-IV:** Low-profile, intelligent, rate-of-rise thermal sensor. Ivory. LiteSpeed and CLIP mode.

**H365HT**: Low-profile intelligent 190°F/88°C fixed thermal sensor. LiteSpeed only.

**H365HT-IV**: Low-profile intelligent 190°F/88°C fixed thermal sensor. Ivory. LiteSpeed and CLIP mode.

***Legacy Devices***

**SD355:** Addressable low-profile photoelectric smoke detector.

**SD355T:** Addressable low-profile photoelectric smoke detector with thermal sensor.

**SD355R:** Remote test capable addressable photoelectric smoke detector for use with DNR(W) duct detector housing.

**SD355CO:** Addressable, low-profile device that provides fire, heat, and carbon monoxide (CO) detection.

**H355:** Fast-response, low-profile heat detector.

**H355R:** Fast-response, low-profile heat detector with rate-of-rise option.

**H355HT:** Fast-response, low-profile heat detector that activates at 190°F/88°C.

**AD355:** Low-profile, intelligent, "Adapt" multi-sensor detector (B350LP base included).

**B200S:** Programmable, addressable sounder base

**B200SR:** Addressable sounder base.

**BEAM355:** Intelligent beam smoke detector.

**BEAM355S:** Intelligent beam smoke detector with integral sensitivity test.

**D355PL:** InnovairFlex low-flow non-relay duct-detector housing; includes SD355R.

**DNR:** InnovairFlex low-flow non-relay duct-detector housing. (Order SD355R/SD365R separately.)

**DNRW:** InnovairFlex low-flow non-relay duct-detector housing, with NEMA-4 rating. Watertight. (Order SD355R/SD365R separately.)

***Addressable Modules***

**MMF-300:** Addressable Monitor Module for one zone of normally-open dry-contact initiating devices. Mounts in standard 4.0" (10.16 cm.) box. Includes plastic cover plate and end-of-line resistor. Module may be configured for either a Style B (Class B) or Style D (Class A) IDC.

**MDF-300:** Dual Monitor Module. Same as MMF-300 except it provides two Style B (Class B) only IDCs.

**MMF-301:** Miniature version of MMF-300. Excludes LED and Style D option. Connects with wire pigtails. May mount in device backbox.

**MMF-302:** Similar to MMF-300. Addressable Monitor Module for one zone of conventional two-wire detectors. Requires resettable 24 VDC power. Refer to the *Device Compatibility Document* for listed compatible devices and quantity limitation.

**CMF-300:** Addressable Control Module for one Style Y/Z (Class B/A) zone of supervised polarized Notification Appliances. Mounts directly to a 4.0" (10.16 cm.) electrical box. NAC option requires external 24 VDC to power notification appliances.

**CRF-300:** Addressable relay module containing two isolated sets of Form-C contacts, which operate as a DPDT switch. Mounts directly to a 4.0" (10.16 cm.) box, surface mount using the SMB500.

**BG-12LX:** Addressable manual pull station with interface module mounted inside.

**I300:** This module isolates the SLC loop from short circuit conditions (required for Style 6 or 7 operation).

**ISO-6:** Six-fault isolator module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

**SMB500:** Used to mount all modules except MMF-301 and M301.

**MMF-300-10:** Ten-input monitor module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

**MMF-302-6:** Six-zone interface module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

**CMF-300-6:** Six-circuit supervised control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

**CRF-300-6:** Six-relay control module (Form-C relays). Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

***SWIFT Wireless Devices***

**W-GATE:** LiteSpeed Wireless Gateway

**W-SD355:** LiteSpeed intelligent, wireless photo detector.

**W-H355R:** LiteSpeed intelligent wireless rate of rise (135°) heat detector.

**W-SD355T:** intelligent wireless photo/heat detector.

**W-H355:** LiteSpeed intelligent wireless fixed-temperature (135°) heat detector.

**W-MMF:** LiteSpeed Intelligent wireless monitor module.

**W-CRF:** LiteSpeed Intelligent wireless relay module.

**W-BG12LX:** LiteSpeed Intelligent wireless pull station.

**WAV-RL, WAV-WL,WAV-CRL,WAV-CWL:** LiteSpeed Intelligent AV bases.

**W-USB:** Wireless USB radio/antenna dongle that plugs into the USB port of a PC running SWIFT Tools.

**SWIFT Tools:** Programming and diagnostic utility for the Wireless Gateway and devices. Available for download from firelite.com.

***NOTE:*** *For more information on Compatible Addressable Devices for use with the ES-50X, see the following data sheets (document numbers): SD365 Series (DF-61010), H365 Series (DF-61011), AD355 (DF-52386), BG-12LX (DF-52013), CMF-300-6 (DF-52365), CRF-300-6 (DF-52374), CMF/CRF Series (DF-52130), CP355 (DF-52383), H355 Series (DF-52385), I300 (DF-52389), ISO-6 (DF-60485), MMF-300 Series/MDF-300 (DF-52121), MMF-300-10 (DF-52347), MMF-302-6 (DF-52356), SD355/SD355T (DF-52384), and SLC Wiring Manual (51309).*

***NOTE:*** *Legacy 300 Series detection devices such as the CP300/CP350, SD300(T)/SD350(T) and older modules such as the M300, M301, M302, C304, and BG-10LX are not compatible with LiteSpeed polling. If the SLC contains one of these devices, polling must be set for standard CLIP protocol. Please consult factory for further information on previous 300 Series devices.*

***ADDRESSABLE DEVICE ACCESSORIES***

**End-of-Line Resistor Assembly (R-47K and R-3.9K):** The 47k ohm assembly supervises the MMF-300, MDF-300, MMF-301, and CMF-300 module circuits. The 3.9k ohm assembly supervises the MMF-302 module circuit. These resistors are included with each module.

**Power Supervision Relay:** Supervises the power to 4-wire smoke detectors and notification appliances.

## Wiring Requirements

While shielded wire is not required, it is recommended that all SLC wiring be twisted-pair to minimize the effects of electrical interference. Refer to the panel manual for wiring details.

# SYSTEM SPECIFICATIONS

## System Capacity

- Intelligent Signaling Line Circuits ..... 1
- Addressable device capacity ..... 50
- Programmable software zones ..... 50
- Annunciators ..... 16

## Electrical Specifications

**AC Power:** Operates in either 120 or 240 VAC, 50/60 Hz, 3.25 A, auto-sensing- no switch required. Wire size: minimum 14 AWG (2.00 mm2) with 600 V insulation. Nonpower-limited, supervised.

**Battery:** Two 12 V 18 AH lead-acid batteries. Battery Charger Capacity: 7-18 AH (ES-50X cabinet holds maximum of two 18 AH batteries.)

**Communication Loop:** Supervised and power-limited.

**Notification Appliance Circuits:** Terminal Block provides connections for two NACs, Style Y (Class B) or Style Z (Class A). Special Application power. Power-limited, supervised circuitry. Maximum signaling current per circuit: 2.5 amps special application, 250mA regulated. End-of-Line Resistor: 4.7k ohm, ½ watt (P/N 71252 UL listed) for Style Y (Class B) NAC; system capable of 1.9 kΩ - 22 kΩ ELR range. Refer to the *Fire•Lite Device Compatibility Document* for listed compatible devices.

**Two Programmable Relays and One Fixed Trouble Relay:** Contact rating: 2.0 A @ 30 VDC (resistive), 0.5 A @ 30 VAC (resistive). Form-C relays, non-power-limited, non-supervised.

## Cabinet Specifications

**Door:** 19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.72" (1.82 cm.) deep. **Backbox:** 19.00" (48.26 cm.) high x 16.65" (42.29 cm.) wide x 5.25" (13.34 cm.) deep. **Trim Ring (TR-CE):** 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide.

## Shipping Specifications

**Weight:** 26.9 lbs. (12.20 kg.) **Dimensions:** 20.00" (50.80 cm.) high x 22.5" (57.15 cm.) wide x 8.5" (21.59 cm.) deep.

## Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

## NFPA Standards

The ES-50X complies with the following NFPA 72 Fire Alarm Systems requirements:

- **LOCAL** (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- **AUXILIARY** (Automatic, Manual and Waterflow) (requires 4XTMF).
- **REMOTE STATION** (Automatic, Manual and Waterflow) (Where a DACT is not accepted, the alarm, trouble and supervisory relays may be connected to UL 864 listed transmitters. For reverse polarity signaling of alarm and trouble, 4XTMF is required.)
- **PROPRIETARY** (Automatic, Manual and Waterflow).
- **CENTRAL STATION** (Automatic, Manual and Waterflow, and Sprinkler Supervised).
- **OT, PSDN** (Other Technologies, Packet-switched Data Network)
- **IBC 2012, IBC 2009, IBC 2006, IBC 2003, IBC 2000** (Seismic).
- **CBC 2007** (Seismic)

## Agency Listings and Approvals

The listings and approvals below apply to the basic ES-50X control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL:** S624
- **FM approved**
- **CSFM:** 7165-0075:0500
- **FDNY:** COA #6261

***NOTE:** See DF-60954 for ULC-listed model.*



ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

Country of Origin: USA

# H365 Series

## Addressable Heat Detectors

FIRE·LITE ALARMS by Honeywell

**Addressable Devices**

The Fire•Lite® Alarms H365(A), H365R(A), and H365HT(A) addressable plug-in thermal detectors are designed for both performance and aesthetics and are a direct replacement for the H355 Series. A new modern, sleek, contemporary design and advanced thermal technologies make the H365(A) Series ideal for both system operation and building design.

Exclusively for use with Fire•Lite's addressable fire alarm control panels, the H365(A) Series point ID capability allows each detector's address to be set with rotary, decimal address switches, providing exact detector location for emergency personnel to quickly locate a fire during its early stages, potentially saving precious rescue time while also reducing property damage. Two LEDs on each sensor light to provide a local, visible sensor indication.

The H365(A) Series includes fixed temperature, rate-of-rise and high heat fixed temperature detectors that provide effective, intelligent property protection for a variety of applications. Detectors are available for both LiteSpeed™ and CLIP applications as designated.

## Features

***SLC LOOP:***

- Two-wire SLC loop connection
- Unit uses base for wiring

***ADDRESSING:***

- Addressable by device
- Rotary, decimal addressing
  (Refer to the *Fire•Lite panel manuals* for device capacity.)

***ARCHITECTURE:***

- Designed to meet UL 268 7th Edition
- Sleek, low-profile, stylish design
- State-of-the-art thermistor technology for fast response
- Integral communications and built-in device-type identification
- Built-in tamper resistant feature
- Built-in functional test switch activated by external magnet

***OPERATION:***

- Fixed temperature model (H365(A)) factory preset to 135°F (57°C)
- Rate-of-rise model (H365R(A)), 15°F (8.3°C) per minute
- High-temperature model (H365HT(A)) factory preset to 190°F (88°C)
- 360°-field viewing angle of the two visual alarm indicators, LEDs blink red in Normal condition and turn on steady red in Alarm
- LEDs blink every time the unit is polled

***MECHANICALS:***

- Sealed against back pressure
- SEMS screws for wiring of the separate base
- Designed for direct-surface or electrical-box mounting
- Plugs into separate base for ease of installation and maintenance
- Separate base allows interchange of photoelectric, ionization and thermal sensors

***OTHER SYSTEM FEATURES:***

- Remote test feature from the panel
- Walk test with address display
- Low standby current

***OPTIONS:***

- Remote LED output connection to optional RA100Z remote LED annunciator

## Installation

H365 Series plug-in intelligent thermal detectors use a detachable base to simplify installation, service and maintenance. Installation instructions are shipped with each detector.

Mount detector base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see *DF-60059*.

***NOTE:*** *Because of the inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring only.*
*When using relay or sounder bases, consult the I300(A) installation sheet I56-3626 for device limitations between isolator modules and isolator bases.*

## Applications

Use thermal detectors for protection of property. For further information, refer to I56-6525, Applications Manual for System Smoke Detectors, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications.

## Construction

These detectors are constructed of fire-resistant plastic. The H365 Series plug-in intelligent thermal detectors are designed to commercial standards and offer an attractive appearance.

## Operation

Each H365 Series detector uses one of the panel's addresses (total limit is panel dependent) on the Fire•LiteJCI Signaling Line Circuit (SLC). It responds to regular polls from the control panel and reports its type and the status. If it receives a test command from the panel (or a local magnet test), it stimulates its electronics and reports an alarm. It blinks its LEDs when polled and turns the LEDs on when commanded by the panel. The H365 Series offers features and performance that represent the latest in thermal detector technology.

## Product Line Information

***NOTE:** "-IV" suffix indicates CLIP and LiteSpeed device.*

***NOTE:** "A" suffix indicates Canadian version.*

**H365:** White, low-profile intelligent 135°F fixed thermal sensor, LiteSpeed only

**H365A:** Same as H365 but with ULC listing

**H365-IV:** Ivory, low-profile intelligent 135°F fixed thermal sensor, LiteSpeed and CLIP

**H365A-IV:** Same as H365-IV but with ULC listing

**H365R**: White, low-profile intelligent rate-of-rise thermal sensor, LiteSpeed only

**H365RA:** Same as H365R but with ULC listing

**H365R-IV:** Ivory, low-profile intelligent rate-of-rise fixed thermal sensor, LiteSpeed and CLIP

**H365RA-IV:** Same as H365R-IV but with ULC listing

**H365HT**: White, low-profile intelligent 190°F fixed thermal sensor, LiteSpeed only

**H365HTA**: Same as H365H but with ULC listing

**H365HT-IV:** Ivory, low-profile intelligent 190°F thermal sensor, LiteSpeed and CLIP

**H365HTA-IV** Same as H365H-IV but with ULC listing

### *INTELLIGENT BASES*

***NOTE:** For details on intelligent bases, see DF-60059.*

**B300-6:** White, 6" base, standard flanged low-profile mounting base *(CSFM: 7300-1653:0109)*

**B300-6-IV:** Ivory,6" base, standard flanged low-profile mounting base *(CSFM: 7300-1653:0109)*

**B300A-6:** Same as B300-6, ULC listed

**B300A-6-IV:** Ivory, 6" standard flanged low-profile mounting base, ULC listed

**B300-6-BP:** Bulk pack of B300-6, package contains 10

**B501-WHITE:** White, 4" standard European flangeless mounting base. UL/ULC listed *(CSFM: 7300-1653:0109)*

**B501-BL:** Black, 4" standard European flangeless mounting base. UL/ULC listed *(CSFM: 7300-1653:0109)*

**B501-IV:** Ivory color, 4" standard European flangeless mounting base. UL/ULC listed *(CSFM: 7300-1653:0109)*

**B501-WHITE-BP:** Bulk pack of B501-WHITE contains 10

**B224RB-WH:** White, relay base *(CSFM: 7300-1653:0216)*

**B224RB-IV:** Ivory, relay base *(CSFM: 7300-1653:0216)*

**B224RBA-WH:** White, relay base, ULC listing

**B224RBA-IV:** Ivory, relay base, ULC listing

**B224BI-WH:** White, isolator detector base (CSFM: 7300-1653:0216)

**B224BI-IV:** Ivory isolator detector base (CSFM: 7300-1653:0216)

**B224BIA-WH:** White, isolator detector base, ULC listing

**B224BIA-IV:** Ivory isolator detector base, ULC listing

**B200S-WH:** White, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol. *(CSFM: 7300-1653:0213)*

**B200S-IV:** Ivory, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol. *(CSFM: 7300-1653:0213)*

**B200SA-WH:** Same as B200S-WH, ULC listing

**B200SA-IV:** Same as B200S-IV, ULC listing

**B200SCOA-WH:** White, Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with CO Series detector applications

**B200SCOA-IV:** Ivory Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with CO Series detector applications, ULC listing

**B200S-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. *(CSFM: 7300-1653:0238)*

**B200S-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. *(CSFM: 7300-1653:0238)*

**B200SR-WH:** White, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications. *(CSFM: 7300-1653:0213)*

**B200SR-IV:** Ivory, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications. *(CSFM: 7300-1653:0213)*

**B200SRA-WH:** Same as B200SR-WH with, ULC listing

**B200SRA-IV:** Same as B200SR-IV in Ivory color, ULC listing

**B200SR-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications. *(CSFM: 7300-1653:0238)*

**B200SR-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications. *(CSFM: 7300-1653:0238)*

### *MOUNTING KITS AND ACCESSORIES*

**TR300**: White, replacement flange for B210LP(A) base

**TR300-IV:** Ivory, replacement flange for B210LP(A) base

**RA100Z(A):** Remote LED annunciator. 3-32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B300-6(A).

**M02-04-00:** Test magnet

**M02-09-00:** Test magnet with telescoping handle

**CK300:** Color Kit (includes cover and trim ring), white, 10-pack

**CK300-IV:** Color Kit (includes cover and trim ring), ivory, 10-pack

**CK300-BL:** Color Kit (includes cover and trim ring), black, 10-pack

# SYSTEM SPECIFICATIONS

**Size:** 2.0" (5.3 cm) high; base determines diameter

- **B300-6:** 6.1" (15.6 cm) diameter
- **B501:** 4" (10.2 cm) diameter

*For a complete list of detector bases see DF-60983*

**Shipping weight:** 3.4 oz. (95 g)

**Operating temperature range:**

- H365, H365R Series: –4°F to 100°F (–20°C to 38°C)
- H365H Series: –4°F to 150°F (–20°C to 66°C)

**Detector spacing:** UL approved for 50 ft. (15.24 m) center-to-center, FM approved for 25 x 25 ft. (7.62 x 7.62 m) spacing

**Relative humidity:** 10% – 93% non-condensing

**Thermal ratings:** fixed-temperature set point 135°F (57°C), rate-of-rise detection 15°F (8.3°C) per minute, high temperature heat 190°F (88°C)

**Mounting:** B300-6(A) flanged base, included

See **"Product Line Information: Intelligent Bases,"** if using a different base.

### *ELECTRICAL SPECIFICATIONS*

**Voltage range:** 15 - 32 volts DC peak

**Standby current (max. avg.):** 200µA @ 24 VDC (one communication every 5 seconds with LED enabled)

**Max current:** 4.5 mA @ 24 VDC ("ON")

## Listings and Approvals

Listings and approvals below apply to the H365 Series detectors. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL/ULC Listing: S2517
- FM Approved
- CSFM: 7272-0075:0501





For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX:(877) 699-4105.
www.firelite.com

Country of Origin: Mexico

# SD365 Series

## Addressable Photoelectric Smoke Detectors

FIRE-LITE ALARMS by Honeywell

**Addressable Devices**

The Fire•Lite® Alarms SD365(A), SD365R(A), and SD365HT(A) intelli-gent plug-in smoke detectors are designed for both performance and aesthetics, and are direct replacements for the SD355 Series. A new modern, sleek, contemporary design and enhanced optical sensing chamber is engineered to sense smoke produced by a wide range of combustion sources in accordance with more stringent code standards.

Exclusively for use with Fire•Lite's addressable fire alarm control panels, the SD365(A) Series point ID capability allows each detector's address to be set with rotary, decimal address switches, providing exact detector location for emergency personnel to quickly locate a fire during its early stages, potentially saving precious rescue time while also reducing property damage. Two LEDs on each sensor light to provide a local, visible sensor indication.

The SD365(A) Series also offers 135°F (57°C) fixed temperature thermal sensing on the SD365T(A) and a remote test capable detector on the SD365R(A) for use with DNR(A)/DNRW duct smoke detector housings.

## Features

***SLC LOOP:***

- Two-wire SLC loop connection
- Unit uses base for wiring
- Compatible with LiteSpeed™ and CLIP protocol systems
- Stable communication technique with noise immunity

***ADDRESSING:***

- Addressable by device
- Rotary, decimal addressing
  (Refer to the *Fire•Lite panel manuals* for device capacity.)

***ARCHITECTURE:***

- Sleek, low-profile, stylish design
- Unique single-source design to respond quickly and dependably to a broad range of fires
- Integral communications and built-in device-type identification
- Built-in tamper resistant feature
- Remote test feature from the panel
- Walk test with address display (an address on 121 will blink the detector LED: 12-[pause]-1*(LiteSpeed systems only)*
- Built-in functional test switch activated by external magnet
- Removable cover and insect-resistant screen for simple field cleaning
- Expanded color options

***OPERATION:***

- Designed to meet UL 268 7th Edition
- Factory preset at 1.5% nominal sensitivity for panel alarm threshold level
- LED "blinks" when the unit is polled (communicating with the fire panel) and latches in alarm.
- Low standby current

***MECHANICALS:***

- Sealed against back pressure
- SEMS screws for wiring of the separate base
- Designed for direct-surface or electrical-box mounting
- Plugs into separate base for ease of installation and maintenance
- Separate base allows interchange of photoelectric, ionization and thermal sensors

***OPTIONS:***

- Optional relay, isolator, and sounder bases

## Installation

SD365 Series plug-in intelligent smoke detectors use a detachable base to simplify installation, service and maintenance. Installation instructions are shipped with each detector.

Mount detector base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see *DF-60059.*

***NOTE:*** *Because of the inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring only.*
*When using relay or sounder bases, consult the I300(A) installation sheet I56-3626 for device limitations between isolator modules and isolator bases.*

## Construction

These detectors are constructed of fire-resistant plastic. The SD365 Series plug-in intelligent smoke detectors are designed to commercial standards and offer an attractive appearance.

## Operation

Each SD365 Series detector uses one of the panel's addresses (total limit is panel dependent) on the Fire•Lite Signaling Line Circuit (SLC). It responds to regular polls from the control panel and reports its type and the status. If it receives a test command from the panel (or a local magnet test), it stimulates its electronics and reports an alarm. It blinks its LEDs when polled and turns the LEDs on when commanded by the panel. The SD365 Series offers features and performance that represent the latest in smoke detector technology.

## Detector Sensitivity Test

Each detector can have its sensitivity tested (required per NFPA 72, Chapter 14 on *Inspection, Testing and Maintenance*) when installed/connected to an Fire•Lite addressable fire alarm control panel. The results of the sensitivity test can be printed for record keeping.

## Product Line Information

***NOTE:** "-IV" suffix indicates CLIP and LiteSpeed device.*

***NOTE:** "A" suffix indicates Canadian version.*

**SD365:** White, low-profile intelligent photoelectric sensor, LiteSpeed only

**SD365A:** Same as SD365 but with ULC listing

**SD365-IV:** Ivory, low-profile intelligent photoelectric sensor

**SD365A-IV:** Same as SD365-IV but with ULC listing

**SD365T:** White, same as **SD365** but includes a built-in 135°F (57°C) fixed-temperature thermal device, LiteSpeed only

**SD365TA:** Same as SD365T but with ULC listing

**SD365T-IV:** Ivory, same as SD365T but includes a built-in 135°F (57°C) fixed-temperature thermal device

**SD365TA-IV:** Same as SD365T-IV but with ULC listing

**SD365R:** White, low-profile intelligent photoelectric sensor, remote test capable, for use with DNR/DNRW, LiteSpeed only

**SD365RA:** Same as SD365R but with ULC listing, for use with DNRA

**SD365R-IV:** Ivory, low-profile intelligent photoelectric sensor, remote test capable, for use with DNR/DNRW

**SD365RA-IV:** Same as SD365R-IV but with ULC listing, for use with DNRA

### *INTELLIGENT BASES*

***NOTE:** For details on intelligent bases, see DF-60059.*

**B300-6:** White, 6" base, standard flanged low-profile mounting base *(CSFM: 7300-1653:0109)*

**B300-6-IV:** Ivory,6" base, standard flanged low-profile mounting base *(CSFM: 7300-1653:0109)*

**B300A-6:** Same as B300-6, ULC listed

**B300A-6-IV:** Ivory, 6" standard flanged low-profile mounting base, ULC listed

**B300-6-BP:** Bulk pack of B300-6, package contains 10

**B501-WHITE:** White, 4" standard European flangeless mounting base. UL/ULC listed *(CSFM: 7300-1653:0109)*

**B501-BL:** Black, 4" standard European flangeless mounting base. UL/ULC listed *(CSFM: 7300-1653:0109)*

**B501-IV:** Ivory color, 4" standard European flangeless mounting base. UL/ULC listed *(CSFM: 7300-1653:0109)*

**B501-WHITE-BP:** Bulk pack of B501-WHITE contains 10

**B224RB-WH:** White, relay base *(CSFM: 7300-1653:0216)*

**B224RB-IV:** Ivory, relay base *(CSFM: 7300-1653:0216)*

**B224RBA-WH:** White, relay base, ULC listing

**B224RBA-IV:** Ivory, relay base, ULC listing

**B224BI-WH:** White, isolator detector base (CSFM: 7300-1653:0216)

**B224BI-IV:** Ivory isolator detector base (CSFM: 7300-1653:0216)

**B224BIA-WH:** White, isolator detector base, ULC listing

**B224BIA-IV:** Ivory isolator detector base, ULC listing

**B200S-WH:** White, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol. *(CSFM: 7300-1653:0213)*

**B200S-IV:** Ivory, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol. *(CSFM: 7300-1653:0213)*

**B200SA-WH:** Same as B200S-WH, ULC listing

**B200SA-IV:** Same as B200S-IV, ULC listing

**B200SCOA-WH:** White, Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with CO Series detector applications

**B200SCOA-IV:** Ivory Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with CO Series detector applications, ULC listing

**B200S-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. *(CSFM: 7300-1653:0238)*

**B200S-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. *(CSFM: 7300-1653:0238)*

**B200SR-WH:** White, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications. *(CSFM: 7300-1653:0213)*

**B200SR-IV:** Ivory, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications. *(CSFM: 7300-1653:0213)*

**B200SRA-WH:** Same as B200SR-WH with, ULC listing

**B200SRA-IV:** Same as B200SR-IV in Ivory color, ULC listing

**B200SR-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications. *(CSFM: 7300-1653:0238)*

**B200SR-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications. *(CSFM: 7300-1653:0238)*

### *MOUNTING KITS AND ACCESSORIES*

**TR300**: White, replacement flange for B210LP(A) base

**TR300-IV:** Ivory, replacement flange for B210LP(A) base

**RA100Z(A):** Remote LED annunciator. 3-32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B300-6(A).

**M02-04-00:** Test magnet

**M02-09-00:** Test magnet with telescoping handle

**CK300:** Color Kit (includes cover and trim ring), white, 10-pack

**CK300-IV:** Color Kit (includes cover and trim ring), ivory, 10-pack

**CK300-BL:** Color Kit (includes cover and trim ring), black, 10-pack

# SYSTEM SPECIFICATIONS

**Sensitivity:**

- UL Applications: 0.5% to 4.0% per foot obscuration.
- ULC Applications: 0.5% to 3.5% per foot obscuration

**Size:** 2.0" (5.3 cm) high; base determines diameter

- **B300-6:** 6.1" (15.6 cm) diameter
- **B501:** 4" (10.2 cm) diameter

*For a complete list of detector bases see DF-60983*

**Shipping weight:** 3.4 oz. (95 g)

**Operating temperature range:**

- SD365: 32°F to 122°F (0°C to 50°C)
- SD365T Series: 32°F to 100°F(0°C to 38°C)
- SD365R Series installed in a DNR/DNRW, -4°F to 158°F (-20°C to 70°C)

**UL/ULC Listed Velocity Range:** 0-4000 ft/min. (1219.2 m/min.), suitable for installation in ducts

**Relative humidity:** 10% – 93% non-condensing

**Thermal ratings:** fixed-temperature set point 135°F (57°C), rate-of-rise detection 15°F (8.3°C) per minute, high temperature heat 190°F (88°C)

### *ELECTRICAL SPECIFICATIONS*

**Voltage range:** 15 - 32 volts DC peak

**Standby current (max. avg.):** 200µA @ 24 VDC (one communication every 5 seconds with LED enabled)

**Max current:** 4.5 mA @ 24 VDC ("ON")

### *DETECTOR SPACING AND APPLICATIONS*

Fire•Lite recommends spacing detectors in compliance with NFPA 72. In low airflow applications with smooth ceiling, space detectors 30 feet (9.1m). For specific information regarding detector spacing, placement, and special applications refer to NFPA 72. A *System Smoke Detector Application Guide*, document A05-1003, is available at **www.systemsensor.com.**

## Listings and Approvals

Listings and approvals below apply to the SD365 Series detectors. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL/ULC Listing: S1059
- FM Approved
- CSFM: 7272-0075:0502



ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX:(877) 699-4105.
www.firelite.com

Country of Origin: Mexico

# ANN-80

## 80-Character Serial LCD Annunciator

FIRE·LITE ALARMS by Honeywell

**Annunciators**

## General

The ANN-80 annunciator is a compact, backlit, 80-character LCD fire annunciator that mimics the Fire Alarm Control Panel (FACP) display. It provides system status indicators for AC Power, Alarm, Trouble, Supervisory, and Alarm Silenced conditions. The ANN-80 and the FACP communicate over a two-wire serial interface employing the ANN-Bus communication format. Connected devices are powered, via two additional wires, by either the host FACP or a remote UL-listed, filtered power supply. The ANN-80 is red; for white, order ANN-80-W.

The ANN-80 displays English-language text of system point information including device type, zone, independent point alarm, trouble or supervisory status, as well as any custom alpha labels programmed into the control panel. It includes control switches for remote control of critical system functions. (A keyswitch prevents unauthorized operation of the control switches.)

Up to eight ANN-80s may be connected to the ANN-Bus of each FACP. No programming is required, which saves time during system commissioning.


## Features

- Listed to UL Standard 864, 9th Edition
- Backlit 80-character LCD display (20 characters x 4 lines)
- Mimics all display information from the host panel
- Control switches for System Acknowledge, Signal Silence, Drill, and Reset
- Control switches can be independently enabled or disabled at the FACP
- Keyswitch enables/disables control switches and mechanically locks annunciator enclosure
- Keyswitch can be enabled or disabled at the FACP
- Enclosure supervised for tamper
- System status LEDs for AC Power, Alarm, Trouble, Supervisory, and Alarm Silence
- Local sounder can be enabled or disabled at the FACP
- ANN-80 connects to the ANN-Bus terminal on the FACP and requires minimal panel programming
- Displays device type identifiers, individual point alarm, trouble, supervisory, zone, and custom alpha labels
- Time-and date display field
- Surface mount directly to wall or to single, double, or 4" square electrical box
- Semi-flush mount to single, double, or 4" square electrical box. Use ANN-SB80KIT for angled view mounting
- Can be remotely located up to 6,000 feet (1,800 m) from the panel
- Backlight turns off during AC loss to conserve battery power but will turn back on if an alarm condition occurs
- May be powered by 24 VDC from the host FACP or by remote power supply (requires 24 VDC)
- Up to eight ANN-80s can be connected on the ANN-Bus

## Controls and Indicators

- AC Power
- Alarm
- Trouble
- Supervisory
- Alarm Silenced

## Specifications

- **Operating voltage range:** 18 VDC to 28 VDC
- **Current consumption** @ 24 VDC nominal (filtered and non-resettable): 40 mA maximum
- **Ambient temperature:** 32°F to 120°F (0°C to 49°C)
- **Relative humidity:** 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F)
- 5.375" (13.65 cm.) high x 6.875" (17.46 cm.) wide x 1.375" (3.49 cm.) deep
- For use indoors in a dry location
- All connections are power-limited and supervised

## The ANN-Bus

### *POWERING THE DEVICES ON THE ANN-BUS FROM AUXILIARY POWER SUPPLY*

The ANN-Bus can be powered by an auxiliary power supply when the maximum number of ANN-Bus devices exceeds the ANN-Bus power requirements. See the FACP manual for more information.

### *ANN-BUS DEVICE ADDRESSING*

Each ANN-Bus device requires a unique address (ID Number) in order to communicate with the FACP. A maximum of 8 devices can be connected to the FACP ANN-Bus communication circuit. See the FACP manual for more information.

### *WIRE REQUIREMENTS: COMMUNICATIONS CIRCUIT*

The ANN-80 connects to the FACP ANN-Bus communications circuit. To determine the type of wire and the maximum wiring distance that can be used with FACP ANN-Bus accessory modules, it is necessary to calculate the total worst case current draw for all modules on a single 4-conductor bus. The total worst case current draw is calculated by adding the individual worst case currents for each module.

***NOTE:*** *For total worst case current draw on a single ANN-Bus refer to appropriate FACP manual.*

### *WIRE REQUIREMENTS: POWER CIRCUIT*

- 14 to 18 AWG (0.75 - 2.08 $mm^2$) wire for 24 VDC power circuit is acceptable. Power wire distance limitation is set by 1.2 volt maximum line drop form source to end of circuit.
- All connections are power-limited and supervised.
- A maximum of eight ANN-80 modules may be connected to this circuit.

## Ordering Options

**ANN-80:** Red 80 character LCD Annunciator.

**ANN-80-W:** White, 80 character LCD Annunciator.

**ANN-SB80KIT-R:** Red surface mount backbox with angled wedge.

**ANN-SB80KIT-W:** White surface mount backbox with angled wedge.

## Agency Listings and Approvals

The listings and approvals below apply to the ANN-80. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL:** S2424
- **FM approved**
- **CSFM:** 7120-0075:0211
- **MEA:** 442-06-E





For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

Country of Origin: USA

# MMF-300(A) Series, MDF-300

## Addressable Monitor Modules

FIRE·LITE® ALARMS by Honeywell

**Addressable Devices**

## General

Four different monitor modules are available for Fire•Lite's intelligent control panels to suit a variety of applications. Monitor modules are used to supervise a circuit of dry-contact input devices, such as conventional heat detectors and pull stations, or monitor and power a circuit of two-wire smoke detectors (MMF-302(A)).

**MMF-300(A)** is a standard-sized module (typically mounts to a 4" [10.16 cm] square box) that supervises either a Style D (Class A) or Style B (Class B) circuit of dry-contact input devices.

**MMF-301(A)** is a miniature monitor module a mere 1.3" (3.302 cm) H x 2.75" (6.985 cm) W x 0.65" (1.651 cm) D that supervises a Style B (Class B) circuit of dry-contact input devices. Its compact design allows the MMF-301(A) to be mounted in a single-gang box behind the device it monitors.

**MMF-302(A)** is a standard-sized module used to monitor and supervise compatible two-wire, 24 volt, smoke detectors on a Style D (Class A) or Style B (Class B) circuit.

**MDF-300(A)** is a standard-sized dual monitor module used to monitor and supervise two independent two-wire Style B (Class B) dry-contact initiating device circuits (IDCs) at two separate, consecutive addresses in intelligent, two-wire systems.

LiteSpeed™ is a communication protocol developed by Fire•Lite Engineering that greatly increases the speed of communication between analog intelligent devices. Intelligent devices communicate in a grouped fashion. If one of the devices within the group has new information, the panel CPU stops the group poll and concentrates on single points. The net effect is response speed greater than five times that of other communication protocols.

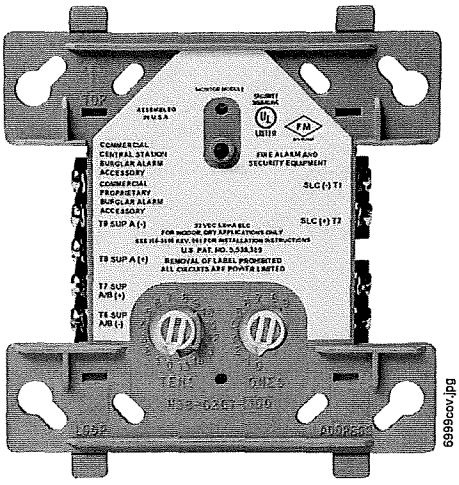
## MMF-300(A) Monitor Module

- Built-in type identification automatically identifies this device as a monitor module to the control panel.
- Powered directly by two-wire SLC loop. No additional power required.
- High noise (EMF/RFI) immunity.
- SEMS screws with clamping plates for ease of wiring.
- Direct-dial entry of address: 01 – 159 on MS-9600 series panels, 01 – 99 on other compatible systems.
- LED flashes during normal operation and latches on steady to indicate alarm.

The MMF-300(A) Monitor Module is intended for use in intelligent, two-wire systems, where the individual address of each module is selected using the built-in rotary switches. It provides either a two-wire or four-wire fault-tolerant Initiating Device Circuit (IDC) for normally-open-contact fire alarm and supervisory devices. The module has a panel-controlled LED indicator. The MMF-300(A) can be used to replace M300(A) modules in existing systems.

### *MMF-300(A) Applications*

Use to monitor a zone of four-wire smoke detectors, manual fire alarm pull stations, waterflow devices, or other normally-open dry-contact alarm activation devices. May also be used to monitor normally-open supervisory devices with special supervisory indication at the control panel. Monitored circuit may be wired as an NFPA Style B (Class B) or Style D (Class A) Initiating Device Circuit. A 47K Ohm End-of-Line Resistor (provided) terminates the Style B circuit. No resistor is required for supervision of the Style D circuit.




MMF-300(A) (Type H)

### *MMF-300(A) Operation*

Each MMF-300(A) uses one of the available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC). A flashing LED indicates that the module is in communication with the control panel. The LED latches steady on alarm (subject to current limitations on the loop).

### *MMF-300(A) Specifications*

**Nominal operating voltage:** 15 to 32 VDC.

**Maximum current draw:** 5.0 mA (LED on).

**Average operating current:** 375 µA (LED flashing), 1 communication every 5 seconds, 47k EOL.

**Maximum IDC wiring resistance:** 1500 Ohms.

**Maximum IDC Voltage:** 11 Volts.

**EOL resistance:** 47K Ohms.

**Temperature range:** 32°F to 120°F (0°C to 49°C).

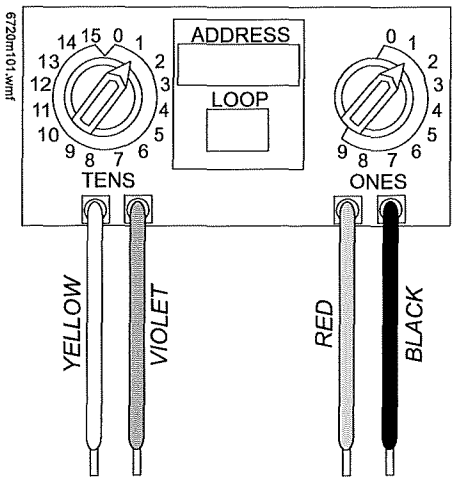
**Humidity range:** 10% to 93% noncondensing.

**Dimensions:** 4.5" (11.43 cm) high x 4" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4" (10.16 cm) square x 2.125" (5.398 cm) deep box.

## MMF-301(A) Mini Monitor Module

- Built-in type identification automatically identifies this device as a monitor module to the panel.
- Powered directly by two-wire SLC loop. No additional power required.
- High noise (EMF/RFI) immunity.

- Tinned, stripped leads for ease of wiring.
- Direct-dial entry of address: 01 – 159 on MS-9600 series panels, 01 – 99 on other compatible systems




The MMF-301(A) Mini Monitor Module can be installed in a single-gang junction directly behind the monitored unit. Its small size and light weight allow it to be installed without rigid mounting. The MMF-301(A) is intended for use in intelligent, two-wire systems where the individual address of each module is selected using rotary switches. It provides a two-wire initiating device circuit for normally-open-contact fire alarm devices. The MMF-301(A) can be used to replace M301(A) modules in existing systems.

### *MMF-301(A) Applications*

Use to monitor a single device or a zone of four-wire smoke detectors, manual fire alarm pull stations, waterflow devices, or other normally-open dry-contact devices. May also be used to monitor normally-open supervisory devices with special supervisory indication at the control panel. Monitored circuit/device is wired as an NFPA Style B (Class B) Initiating Device Circuit. A 47K Ohm End-of-Line Resistor (provided) terminates the circuit.

### *MMF-301(A) Operation*

Each MMF-301(A) uses one of the available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC).

### *MMF-301(A) Specifications*

**Nominal operating voltage:** 15 to 32 VDC.

**Average operating current:** 350 µA, 1 communication every 5 seconds, 47k EOL; 600 µA Max. (Communicating, IDC Shorted).

**Maximum IDC wiring resistance:** 1500 Ohms.

**Maximum IDC Voltage:** 11 Volts.

**Maximum IDC Current:** 450 µA.

**EOL resistance:** 47K Ohms.

**Temperature range:** 32°F to 120°F (0°C to 49°C).

**Humidity range:** 10% to 93% noncondensing.

**Dimensions:** 1.3" (3.302 cm) high x 2.75" (6.985 cm) wide x 0.65" (1.651 cm) deep.

**Wire length:** 6" (15.24 cm) minimum.

## MMF-302(A) Interface Module

- Supports compatible two-wire smoke detectors.
- Supervises IDC wiring and connection of external power source.
- High noise (EMF/RFI) immunity.
- SEMS screws with clamping plates for ease of wiring.
- Direct-dial entry entry of address: 01 – 159 on MS-9600 series panels, 01 – 99 on other compatible systems.
- LED flashes during normal operation.
- LED latches steady to indicate alarm on command from control panel.

The MMF-302(A) Interface Module is intended for use in intelligent, addressable systems, where the individual address of each module is selected using built-in rotary switches. This module allows intelligent panels to interface and monitor two-wire conventional smoke detectors. It transmits the status (normal, open, or alarm) of one full zone of conventional detectors back to the control panel. All two-wire detectors being monitored must be UL compatible with the module. The MMF-302(A) can be used to replace M302(A) modules in existing systems.

### *MMF-302 (A) Applications*

Use the MMF-302(A) to monitor a zone of two-wire smoke detectors. The monitored circuit may be wired as an NFPA Style B (Class B) or Style D (Class A) Initiating Device Circuit. A 3.9 K Ohm End-of-Line Resistor (provided) terminates the end of the Style B or D (class B or A) circuit (maximum IDC loop resistance is 25 Ohms). Install ELR across terminals 8 and 9 for Style D application.

### *MMF-302(A) Operation*

Each MMF-302(A) uses one of the available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC). A flashing LED indicates that the module is in communication with the control panel. The LED latches steady on alarm (subject to current limitations on the loop).

### *MMF-302(A) Specifications*

**Nominal operating voltage:** 15 to 32 VDC.

**Maximum current draw:** 5.1 mA (LED on).

**Maximum IDC wiring resistance:** 25 Ohms.

**Average operating current:** 270 µA, 1 communication and 1 LED flash every 5 seconds, 3.9k eol.

**EOL resistance:** 3.9K Ohms.

**External supply voltage (between Terminals T10 and T11):**

- DC voltage: 24 volts power limited.
- Ripple voltage: 0.1 Vrms maximum.
- Current: 90 mA per module maximum.

**Temperature range:** 32°F to 120°F (0°C to 49°C).

**Humidity range:** 10% to 93% noncondensing.

**Dimensions:** 4.5" (11.43 cm) high x 4" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4" (10.16 cm) square x 2.125" (5.398 cm) deep box.

## MDF-300(A) Dual Monitor Module

The MDF-300(A) Dual Monitor Module is intended for use in intelligent, two-wire systems. It provides two independent two-wire initiating device circuits (IDCs) at two separate, consecutive addresses. It is capable of monitoring normally open contact fire alarm and supervisory devices. The module has a single panel-controlled LED.

***NOTE:*** *The MDF-300(A) provides two Style B (Class B) IDC circuits ONLY. Style D (Class A) IDC circuits are NOT supported in any application.*

### *MDF-300(A) SPECIFICATIONS*

**Normal operating voltage range:** 15 to 32 VDC.

**Maximum current draw:** 6.4 mA (LED on).

**Average operating current:** 750 µA (LED flashing).

**Maximum IDC wiring resistance:** 1,500 Ohms.

**Maximum IDC Voltage:** 11 Volts.

**Maximum IDC Current:** 240 µA

**EOL resistance:** 47K Ohms.

**Temperature range:** 32° to 120°F (0° to 49°C).

**Humidity range:** 10% to 93% (non-condensing).

**Dimensions:** 4.5" (11.43 cm) high x 4" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4" (10.16 cm) square x 2.125" (5.398 cm) deep box.

### *MDF-300(A) AUTOMATIC ADDRESSING*

The MDF-300(A) automatically assigns itself to two addressable points, starting with the original address. For example, if the MDF-300(A) is set to address "26", then it will automatically assign itself to addresses "26" and "27".

***NOTE:*** *"Ones" addresses on the MDF-300(A) are 0, 2, 4, 6, or 8 only. Terminals 6 and 7 use the first address, and terminals 8 and 9 use the second address.*

**CAUTION:**
Avoid duplicating addresses on the system.

## Installation

MMF-300(A), MMF-302(A), and MDF-300(A) modules mount directly to a standard 4" (10.16 cm) square, 2.125" (5.398 cm) deep, electrical box. They may also be mounted to the SMB500 surface-mount box. Mounting hardware and installation instructions are provided with each module. All wiring must conform to applicable local codes, ordinances, and regulations. These modules are intended for power-limited wiring only.

The MMF-301(A) module is intended to be wired and mounted without rigid connections inside a standard electrical box. All wiring must conform to applicable local codes, ordinances, and regulations.

## Agency Listings and Approvals

In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL:** *S2424.*
- **ULC:** *S2424.*
- **FM Approved.**
- **CSFM:** 7300-0075:0185.
- **MEA:** 72-01-E.

## Product Line Information

***NOTE:*** *"A" suffix indicates ULC-listed model.*

**MMF-300(A):** Monitor module.

**MMF-301(A):** Monitor module, miniature.

**MMF-302(A):** Monitor module, two-wire detectors.

**MDF-300(A):** Monitor module, dual, two independent Class B circuits.

**SMB500:** Optional surface-mount backbox.

***NOTE:*** *See installation instructions and refer to the SLC Wiring Manual, PN 51309.*

## Architects'/Engineers' Specifications

Specifications of these devices and all FireLite products are available from FireLite.

ISO 9001 CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

SYSTEM SENSOR®

# Indoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications


*System Sensor L-Series audible visible notification products are rich with features guaranteed to cut installation times and maximize profits with lower current draw and modern aesthetics.*

## Features

- Updated Modern Aesthetics
- Small profile devices for Horns and Horn Strobes
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and two volume selections
- Mounting plate for all standard and all compact wall units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with legacy SpectrAlert and SpectrAlert Advance devices
- Compatible with MDL3 sync module
- Strobes and Horn Strobes listed for wall mounting only
- Horns listed for wall or ceiling use

## Agency Listings

SIGNALING UL LISTED
S5512
S4011

FM APPROVED
FM approved except for ALERT models 3057383, 3057072

7125-1653 0504
7135-1653 0503

**The System Sensor L-Series** offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement.

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to a suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.

# L-Series Specifications

## Architect/Engineer Specifications

### General

L-Series standard horns, strobes, and horn strobes shall mount to a standard 2 x 4 x 1⁷/₈-inch back box, 4 x 4 x 1½-inch back box, 4-inch octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2 x 4 x 1⁷/₈-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products for all standard models and a separate universal mounting plate shall be used for mounting wall compact models. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 30, 75, 95, 110, 135, and 185.

### Strobe

The strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

### Horn Strobe Combination

The horn strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The horn on horn strobe models shall operate on a coded or non-coded power supply.

### Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize Strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4¹¹/₁₆ x 4¹¹/₁₆ x 2¹/₈-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

## Physical/Electrical Specifications

| | |
|---|---|
| **Standard Operating Temperature** | 32°F to 120°F (0°C to 49°C) |
| **Humidity Range** | 10 to 93% non-condensing |
| **Strobe Flash Rate** | 1 flash per second |
| **Nominal Voltage** | Regulated 12 DC or regulated 24 DC/FWR[1] |
| **Operating Voltage Range[2]** | 8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal) |
| **Operating Voltage Range MDL3 Sync Module** | 8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal) |
| **Input Terminal Wire Gauge** | 12 to 18 AWG |
| **Wall-Mount Dimensions (including lens)** | 5.6″L x 4.7″W x 1.91″D (143 mm L x 119 mm W x 49 mm D) |
| **Compact Wall-Mount Dimensions (including lens)** | 5.26" L x 3.46" W x 1.91" D (133 mm L x 88 mm W x 49 mm D) |
| **Horn Dimensions** | 5.6″L x 4.7″W x 1.25″D (143 mm L x 119 mm W x 32 mm D) |
| **Compact Horn Dimensions** | 5.25" L x 3.45" W x 1.25" D (133 mm L x 88 mm W x 32 mm D) |

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. Strobe products will operate at 12 V nominal only for 15 cd and 30 cd.

## UL Current Draw Data

**UL Max. Strobe Current Draw (mA RMS)**

| | | 8–17.5 Volts | 16–33 Volts | |
|---|---|---|---|---|
| | Candela | DC | DC | FWR |
| Candela Range | 15 | 88 | 43 | 60 |
| | 30 | 143 | 63 | 83 |
| | 75 | N/A | 107 | 136 |
| | 95 | N/A | 121 | 155 |
| | 110 | N/A | 148 | 179 |
| | 135 | N/A | 172 | 209 |
| | 185 | N/A | 222 | 257 |

**UL Max. Horn Current Draw (mA RMS)**

| | | 8–17.5 Volts | 16–33 Volts | |
|---|---|---|---|---|
| Sound Pattern | dB | DC | DC | FWR |
| Temporal | High | 39 | 44 | 54 |
| Temporal | Low | 28 | 32 | 54 |
| Non-Temporal | High | 43 | 47 | 54 |
| Non-Temporal | Low | 29 | 32 | 54 |
| 3.1 KHz Temporal | High | 39 | 41 | 54 |
| 3.1 KHz Temporal | Low | 29 | 32 | 54 |
| 3.1 KHz Non-Temporal | High | 42 | 43 | 54 |
| 3.1 KHz Non-Temporal | Low | 28 | 29 | 54 |
| Coded | High | 43 | 47 | 54 |
| 3.1 KHz Coded | High | 42 | 43 | 54 |

**UL Max. Current Draw (mA RMS), Wall Horn Strobe, Candela Range (15–185 cd)**

| | 8–17.5 Volts | | 16–33 Volts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DC Input | 15cd | 30cd | 15cd | 30cd | 75cd | 95cd | 110cd | 135cd | 185cd |
| Temporal High | 98 | 158 | 54 | 74 | 121 | 142 | 162 | 196 | 245 |
| Temporal Low | 93 | 154 | 44 | 65 | 111 | 133 | 157 | 184 | 235 |
| Non-Temporal High | 106 | 166 | 73 | 94 | 139 | 160 | 182 | 211 | 262 |
| Non-Temportal Low | 93 | 156 | 51 | 71 | 119 | 139 | 162 | 190 | 239 |
| 3.1K Temporal High | 93 | 156 | 53 | 73 | 119 | 140 | 164 | 190 | 242 |
| 3.1K Temporal Low | 91 | 154 | 45 | 66 | 112 | 133 | 160 | 185 | 235 |
| 3.1K Non-Temporal High | 99 | 162 | 69 | 90 | 135 | 157 | 175 | 208 | 261 |
| 3.1K Non-Temporal Low | 93 | 156 | 52 | 72 | 119 | 138 | 162 | 192 | 242 |

| | 16–33 Volts | | | | | | |
|---|---|---|---|---|---|---|---|
| FWR Input | 15cd | 30cd | 75cd | 95cd | 110cd | 135cd | 185cd |
| Temporal High | 83 | 107 | 156 | 177 | 198 | 234 | 287 |
| Temporal Low | 68 | 91 | 145 | 165 | 185 | 223 | 271 |
| Non-Temporal High | 111 | 135 | 185 | 207 | 230 | 264 | 316 |
| Non-Temportal Low | 79 | 104 | 157 | 175 | 197 | 235 | 283 |
| 3.1K Temporal High | 81 | 105 | 155 | 177 | 196 | 234 | 284 |
| 3.1K Temporal Low | 68 | 90 | 145 | 166 | 186 | 222 | 276 |
| 3.1K Non-Temporal High | 104 | 131 | 177 | 204 | 230 | 264 | 326 |
| 3.1K Non-Temporal Low | 77 | 102 | 156 | 177 | 199 | 234 | 291 |

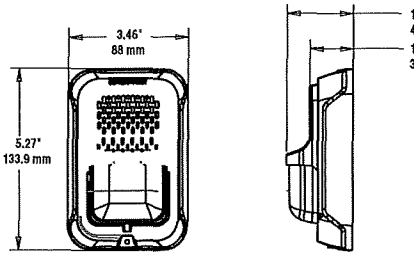
## Horn Tones and Sound Output Data

**Horn and Horn Strobe Output (dBA)**

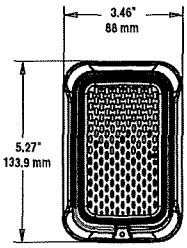
| Switch Position | Sound Pattern | dB | 8–17.5 Volts DC | 16–33 Volts DC | 16–33 Volts FWR |
|---|---|---|---|---|---|
| 1 | Temporal | High | 84 | 89 | 89 |
| 2 | Temporal | Low | 75 | 83 | 83 |
| 3 | Non-Temporal | High | 85 | 90 | 90 |
| 4 | Non-Temporal | Low | 76 | 84 | 84 |
| 5 | 3.1 KHz Temporal | High | 83 | 88 | 88 |
| 6 | 3.1 KHz Temporal | Low | 76 | 82 | 82 |
| 7 | 3.1 KHz Non-Temporal | High | 84 | 89 | 89 |
| 8 | 3.1 KHz Non-Temporal | Low | 77 | 83 | 83 |
| 9* | Coded | High | 85 | 90 | 90 |
| 10* | 3.1 KHz Coded | High | 84 | 89 | 89 |

* Settings 9 and 10 are not available on 2-wire horn strobes. Temporal coding must be provided by the NAC. If the NAC voltage is held constant, the horn output remains constantly on.

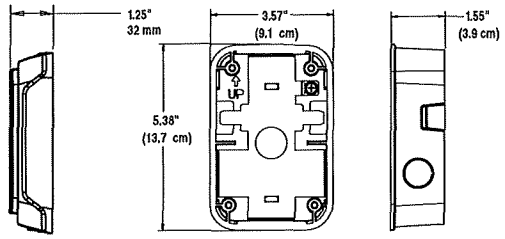
## L-Series Dimensions



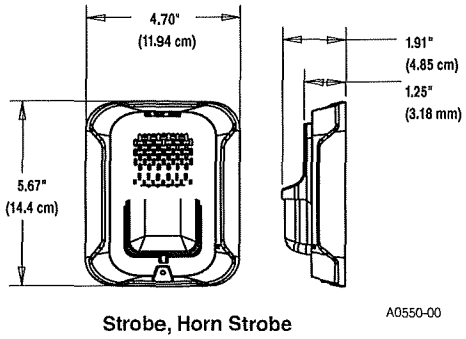

Compact Strobe, Horn Strobe



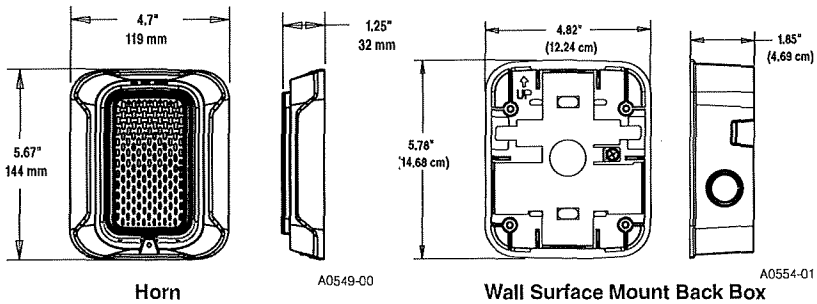

Compact Horn




Compact Wall Surface Mount Back Box
SBBGRL, SBBGWL




Strobe, Horn Strobe




Horn

Wall Surface Mount Back Box
SBBRL/SBBWL

## L-Series Ordering Information

| Model | Description |
|---|---|
| **Wall Horn Strobes** | |
| P2RL | 2-Wire, Horn Strobe, Red |
| P2WL | 2-Wire, Horn Strobe, White |
| P2GRL | 2-Wire, Compact Horn Strobe, Red |
| P2GWL | 2-Wire, Comp 2 fils act Horn Strobe, White |
| P2RL-P | 2-Wire, Horn Strobe, Red, Plain |
| P2WL-P | 2-Wire, Horn Strobe, White, Plain |
| P2RL-SP | 2-Wire, Horn Strobe, Red, FUEGO |
| P2WL-SP | 2-Wire, Horn Strobe, White, FUEGO |
| P4RL | 4-Wire, Horn Strobe, Red |
| P4WL | 4-Wire, Horn Strobe, White |
| **Wall Strobes** | |
| SRL | Strobe, Red |
| SWL | Strobe, White |
| SGRL | Compact Strobe, Red |
| SGWL | Compact Strobe, White |
| SRL-P | Strobe, Red, Plain |
| SWL-P | Strobe, White, Plain |
| SRL-SP | Strobe, Red, FUEGO |
| SWL-CLR-ALERT | Strobe, White, ALERT |

| Model | Description |
|---|---|
| **Horns*** | |
| HRL* | Horn, Red |
| HWL* | Horn, White |
| HGRL* | Compact Horn, Red |
| HGWL* | Compact Horn, White |
| **Accessories** | |
| TR-2 | Universal Wall Trim Ring Red |
| TR-2W | Universal Wall Trim Ring White |
| SBBRL | Wall Surface Mount Back Box, Red |
| SBBWL | Wall Surface Mount Back Box, White |
| SBBGRL | Compact Wall Surface Mount Back Box, Red |
| SBBGWL | Compact Wall Surface Mount Back Box, White |

**Notes:**
All -P models have a plain housing (no "FIRE" marking on cover).
All -SP models have "FUEGO" marking on cover.
All -ALERT models have "ALERT" marking on cover.
*Horn-only models are listed for wall or ceiling use.

SYSTEM SENSOR®
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495
www.systemsensor.com


AVDS865-05 • 2/22/2018

SYSTEM SENSOR®

# Indoor Selectable-Output Strobes and Horn Strobes for Ceiling Applications

*System Sensor L-Series audible visible notification products are rich with features guaranteed to cut installation times and maximize profits with lower current draw and modern aesthetics.*


## Features

- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Field-selectable candela settings on ceiling units: 15, 30, 75, 95, 115, 150, and 177
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and two volume selections
- Universal mounting plate for ceiling units
- Mounting plate shorting spring feature checks wiring continuity before device installation
- Electrically Compatible with legacy SpectrAlert and SpectrAlert Advance devices
- Compatible with MDL3 sync module
- Listed for ceiling mounting only

**The System Sensor L-Series** offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, wall and ceiling mounting options, System Sensor L-Series can meet virtually any application requirement.

The entire L-Series product line of ceiling-mount strobes and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature a plug-in design with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation, the L-Series utilizes a universal mounting plate so installers can mount them to a wide array of back boxes. With an onboard shorting spring, installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to a suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.

## Agency Listings

| SIGNALING UL LISTED | FM APPROVED | |
|---|---|---|
| S5512<br>S4011 | FM approved except for ALERT models<br>3057383 | 7125-1653 0504<br>7135-1653 0503 |

# L-Series Specifications

## Architect/Engineer Specifications

### General

L-Series ceiling-mount strobes and horn strobes shall mount to a standard 4 x 4 x 1½-inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang 2 x 4 x 17/8-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Ceiling strobes and horn strobes shall have field-selectable candela settings including 15, 30, 75, 95, 115, 150, and 177.

### Strobe

The strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

### Horn Strobe Combination

The horn strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The horn on horn strobe models shall operate on a coded or non-coded power supply.

### Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize L-Series strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4 11/16 x 4 11/16 x 2 1/8-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

## Physical/Electrical Specifications

| | |
|---|---|
| **Standard Operating Temperature** | 32°F to 120°F (0°C to 49°C) |
| **Humidity Range** | 10 to 93% non-condensing |
| **Strobe Flash Rate** | 1 flash per second |
| **Nominal Voltage** | Regulated 12 VDC or regulated 24 DC/FWR[1] |
| **Operating Voltage Range[2]** | 8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal) |
| **Operating Voltage Range (MDL3)** | 8.5 to 17.5V (12 V nominal) or 16.5 to 33 V (24V nominal) |
| **Input Terminal Wire Gauge** | 12 to 18 AWG |
| **Ceiling-Mount Dimensions (including lens)** | 6.8" diameter x 2.5" high (173 mm diameter x 64 mm high) |
| **Ceiling-Mount Surface Mount Back Box Skirt Dimensions (SBBCRL, SBBCWL)** | 6.9" diameter x 3.4" high (175 mm diameter x 86 mm high) |

**Notes:**

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 30 cd.

## UL Current Draw Data

**UL Max. Strobe Current Draw (mA RMS)**

| | | 8–17.5 Volts | 16–33 Volts | |
|---|---|---|---|---|
| | Candela | DC | DC | FWR |
| Candela Range | 15 | 87 | 41 | 60 |
| | 30 | 153 | 63 | 86 |
| | 75 | N/A | 111 | 142 |
| | 95 | N/A | 134 | 164 |
| | 115 | N/A | 158 | 191 |
| | 150 | N/A | 189 | 228 |
| | 177 | N/A | 226 | 264 |

**UL Max. Horn Current Draw (mA RMS)**

| | | 8–17.5 Volts | 16–33 Volts | |
|---|---|---|---|---|
| Sound Pattern | dB | DC | DC | FWR |
| Temporal | High | 39 | 44 | 54 |
| Temporal | Low | 28 | 32 | 54 |
| Non-Temporal | High | 43 | 47 | 54 |
| Non-Temporal | Low | 29 | 32 | 54 |
| 3.1 KHz Temporal | High | 39 | 41 | 54 |
| 3.1 KHz Temporal | Low | 29 | 32 | 54 |
| 3.1 KHz Non-Temporal | High | 42 | 43 | 54 |
| 3.1 KHz Non-Temporal | Low | 28 | 29 | 54 |
| Coded | High | 43 | 47 | 54 |
| 3.1 KHz Coded | High | 42 | 43 | 54 |

**UL Max. Current Draw (mA RMS), Ceiling Horn Strobe, Candela Range (15–177 cd)**

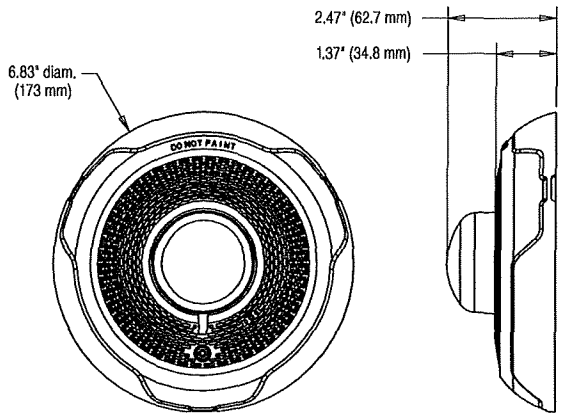
| | 8–17.5 Volts | | 16–33 Volts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DC Input | 15cd | 30cd | 15cd | 30cd | 75cd | 95cd | 115cd | 150cd | 177cd |
| Temporal High | 103 | 167 | 71 | 90 | 143 | 165 | 187 | 217 | 254 |
| Temporal Low | 96 | 165 | 54 | 71 | 137 | 161 | 185 | 211 | 249 |
| Non-Temporal High | 106 | 173 | 71 | 90 | 141 | 165 | 187 | 230 | 273 |
| Non-Temportal Low | 95 | 166 | 54 | 71 | 124 | 161 | 170 | 216 | 258 |
| 3.1K Temporal High | 111 | 164 | 69 | 94 | 147 | 163 | 184 | 229 | 257 |
| 3.1K Temporal Low | 103 | 163 | 54 | 88 | 143 | 155 | 185 | 212 | 252 |
| 3.1K Non-Temporal High | 111 | 172 | 69 | 94 | 144 | 164 | 202 | 229 | 271 |
| 3.1K Non-Temporal Low | 103 | 169 | 54 | 88 | 131 | 155 | 187 | 217 | 259 |
| | 16–33 Volts | | | | | | | | |
| FWR Input | 15cd | 30cd | 75cd | 95cd | 115cd | 150cd | 177cd | | |
| Temporal High | 107 | 135 | 179 | 198 | 223 | 254 | 286 | | |
| Temporal Low | 78 | 101 | 151 | 172 | 199 | 229 | 262 | | |
| Non-Temporal High | 107 | 135 | 179 | 198 | 223 | 254 | 286 | | |
| Non-Temportal Low | 78 | 101 | 151 | 172 | 199 | 229 | 262 | | |
| 3.1K Temporal High | 108 | 135 | 179 | 200 | 225 | 255 | 289 | | |
| 3.1K Temporal Low | 79 | 101 | 150 | 171 | 196 | 229 | 260 | | |
| 3.1K Non-Temporal High | 108 | 135 | 179 | 200 | 225 | 255 | 289 | | |
| 3.1K Non-Temporal Low | 79 | 101 | 150 | 171 | 196 | 229 | 260 | | |

## Horn Strobe Tones and Sound Output Data

**Horn Strobe Output (dBA)**

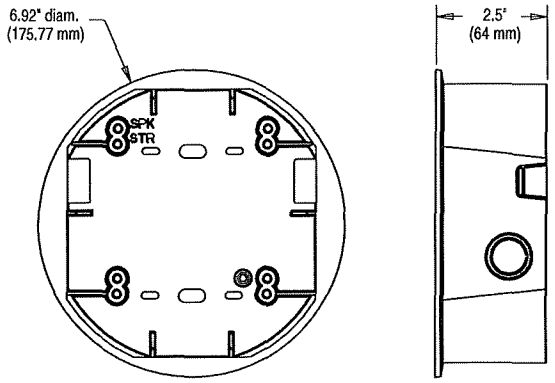
| | | | 8–17.5 Volts | 16–33 Volts | |
|---|---|---|---|---|---|
| Switch Position | Sound Pattern | dB | DC | DC | FWR |
| 1 | Temporal | High | 84 | 89 | 89 |
| 2 | Temporal | Low | 75 | 83 | 83 |
| 3 | Non-Temporal | High | 85 | 90 | 90 |
| 4 | Non-Temporal | Low | 76 | 84 | 84 |
| 5 | 3.1 KHz Temporal | High | 83 | 88 | 88 |
| 6 | 3.1 KHz Temporal | Low | 76 | 82 | 82 |
| 7 | 3.1 KHz Non-Temporal | High | 84 | 89 | 89 |
| 8 | 3.1 KHz Non-Temporal | Low | 77 | 83 | 83 |

## L-Series Dimensions



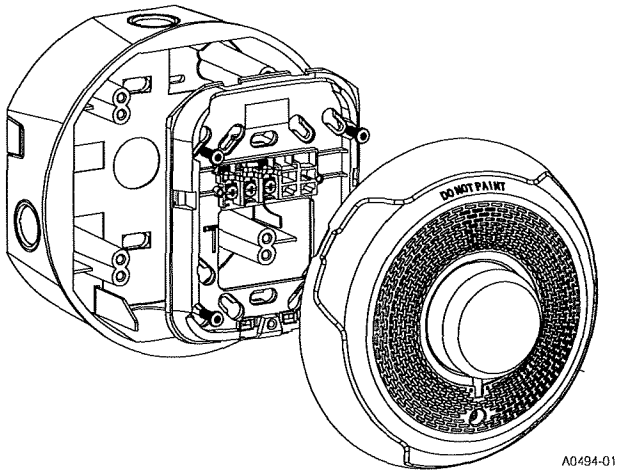

A0545-00

**Ceiling-Mount Horn Strobes**



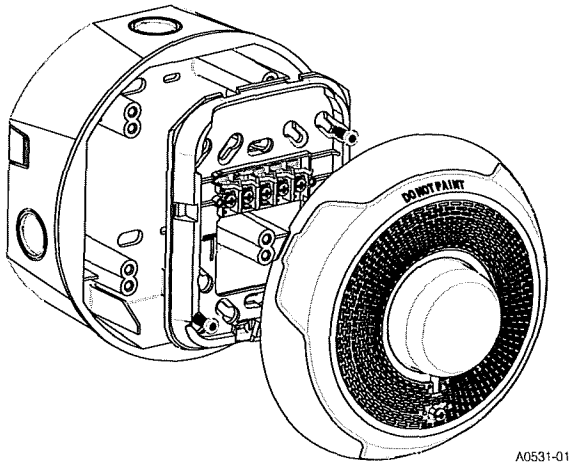

A0546-00

**Ceiling Surface Mount Back Box**




A0494-01

**2-Wire Ceiling Mount Horn Strobes with Ceiling Surface Mount Back Box**




A0531-01

**4-Wire Ceiling Mount Horn Strobes with Ceiling Surface Mount Back Box**

## L-Series Ordering Information

| Model | Description |
|---|---|
| **Ceiling Horn Strobes** | |
| PC2RL | 2-Wire, Horn Strobe, Red |
| PC2WL | 2-Wire, Horn Strobe, White |
| PC4RL | 4-Wire, Horn Strobe, Red |
| PC4WL | 4-Wire, Horn Strobe, White |

| Model | Description |
|---|---|
| **Ceiling Strobes** | |
| SCRL | Strobe, Red |
| SCWL | Strobe, White |
| SCWL-CLR-ALERT | Strobe, White, ALERT |
| **Accessories** | |
| TRC-2 | Universal Ceiling Trim Ring Red |
| TRC-2W | Universal Ceiling Trim Ring White |
| SBBCRL | Ceiling Surface Mount Back Box, Red |
| SBBCWL | Ceiling Surface Mount Back Box, White |

For a ceiling-listed horn-only device, see AVDS865 "Indoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications".

SYSTEM SENSOR®

3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495


AVDS868-02 • 12/01/2017

SYSTEM SENSOR®

# Outdoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications


SPECTRAlert ADVANCE from System Sensor

*SpectrAlert® Advance outdoor audible visible products are rich with features that cut installation times and maximize profits.*

## Features

- Weatherproof per NEMA 4X, IP56
- Listed to UL 1638 (strobe) and UL 464 (horn)
- Compatible with System Sensor synchronization protocol and legacy SpectrAlert products
- Field-selectable candela settings: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Rotary switch for horn tone and three volume selections
- Horn rated at 88+ dBA at 16 volts
- Rated from –40°F to 151°F
- Universal mounting plate with an onboard shorting spring that tests wiring continuity before devices are installed
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Listed for ceiling or wall mounting

**SpectrAlert Advance** offers the broadest line of outdoor horns, strobes, and horn strobes in the industry. With white or red plastic housings, wall or ceiling mounting options, and plain or FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement, including indoor, outdoor, wet, and dry applications in temperatures from –40°F to 151°F.

Like the entire SpectrAlert Advance line, outdoor horns, strobes, and horn strobes for wall applications include a variety of features that increase application flexibility and simplify installation. First, field-selectable settings, including candela, automatic selection of 12- or 24-volt operation, horn tones, and three volume options enable installers to easily adapt devices to meet requirements.

Next, SpectrAlert Advance devices use a universal mounting plate for both wall and ceiling applications. This mounting plate includes an onboard shorting spring that ensures wiring continuity before devices are installed, so installers can verify proper wiring without mounting the devices and exposing them to potential construction damage. Once the plates are mounted, all SpectrAlert Advance devices utilize a plug-in design with a single captured screw to speed installation and virtually eliminate costly ground faults.

Outdoor devices ship with weatherproof plastic back boxes (metal back boxes are available separately) that accommodate in-and-out wiring for daisy chaining devices. Plastic back boxes feature removable side flanges and improved resistance to saltwater corrosion. Knock-outs located on the back eliminate the need to drill holes for screw-in mounting. Plastic and metal weatherproof back boxes come with ¾-inch top and bottom conduit entries and ¾-inch knock-outs at the back. A screw-in NPT plug with an O-ring gasket for a watertight seal is included with each back box.

## Agency Listings

SIGNALING UL LISTED
S4011 (chimes, horn strobes, horns)
S3593 (outdoor and alert strobes)

FM APPROVED
3023572

MEA approved
MEA452-05-E

7300-1653:187 (outdoor strobes)
7125-1653:188 (horn strobes, chime strobes)
7135-1653:189 (horns, chimes)

# SpectrAlert Advance Outdoor Horn, Strobe, and Horn StrobeSpecifications

## Architect/Engineer Specifications

### General

SpectrAlert Advance outdoor horns, strobes, and horn strobes shall mount to a weatherproof back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Outdoor SpectrAlert Advance products shall operate between –40 and 151 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

### Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The strobe shall be suitable for use in wet environments.

### Horn Strobe Combination

The horn strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options shall be set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn or horn strobe models shall operate on a coded or non-coded power supply. The horn strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The horn strobe shall be suitable for use in wet environments.

## Physical/Electrical Specifications

| | |
|---|---|
| **Operating Temperature** | –40°F to 151°F (–40°C to 66°C) |
| **Strobe Flash Rate** | 1 flash per second |
| **Nominal Voltage** | Regulated 12 DC/FWR or regulated 24 DC/FWR[1] |
| **Operating Voltage Range[2]** | 8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal) |
| **Operating Voltage with MLD3 Sync Module** | 8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal) |
| **Input Terminal Wire Gauge** | 12 to 18 AWG |
| **Wall-Mount Dimensions (including lens)** | 5.6″L x 4.7″W x 2.5″D (142 mm L x 119 mm W x 64 mm D) |
| **Horn Dimensions** | 5.6″L x 4.7″W x 1.3″D (142 mm L x 119 mm W x 33 mm D) |
| **Wall-Mount Weatherproof Back Box Dimensions (SA-WBB)** | 5.7″L x 5.1″W x 2.0″D (145 mm L x 130 mm W x 51 mm D) |

**Notes:**

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. 2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

## UL Current Draw Data

**UL Max. Strobe Current Draw (mA RMS)**

| | | 8–17.5 Volts | | 16–33 Volts | |
|---|---|---|---|---|---|
| | Candela | DC | FWR | DC | FWR |
| Standard Candela Range | 15 | 123 | 128 | 66 | 71 |
| | 15/75 | 142 | 148 | 77 | 81 |
| | 30 | NA | NA | 94 | 96 |
| | 75 | NA | NA | 158 | 153 |
| | 95 | NA | NA | 181 | 176 |
| | 110 | NA | NA | 202 | 195 |
| | 115 | NA | NA | 210 | 205 |
| High Candela Range | 135 | NA | NA | 228 | 207 |
| | 150 | NA | NA | 246 | 220 |
| | 177 | NA | NA | 281 | 251 |
| | 185 | NA | NA | 286 | 258 |

**UL Max. Horn Current Draw (mA RMS)**

| | | 8–17.5 Volts | | 16–33 Volts | |
|---|---|---|---|---|---|
| Sound Pattern | dB | DC | FWR | DC | FWR |
| Temporal | High | 57 | 55 | 69 | 75 |
| Temporal | Medium | 44 | 49 | 58 | 69 |
| Temporal | Low | 38 | 44 | 44 | 48 |
| Non-Temporal | High | 57 | 56 | 69 | 75 |
| Non-Temporal | Medium | 42 | 50 | 60 | 69 |
| Non-Temporal | Low | 41 | 44 | 50 | 50 |
| Coded | High | 57 | 55 | 69 | 75 |
| Coded | Medium | 44 | 51 | 56 | 69 |
| Coded | Low | 40 | 46 | 52 | 50 |

**UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15–115 cd)**

| | 8–17.5 Volts | | 16–33 Volts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DC Input | 15 | 15/75 | 15 | 15/75 | 30 | 75 | 95 | 110 | 115 |
| Temporal High | 137 | 147 | 79 | 90 | 107 | 176 | 194 | 212 | 218 |
| Temporal Medium | 132 | 144 | 69 | 80 | 97 | 157 | 182 | 201 | 210 |
| Temporal Low | 132 | 143 | 66 | 77 | 93 | 154 | 179 | 198 | 207 |
| Non-Temporal High | 141 | 152 | 91 | 100 | 116 | 176 | 201 | 221 | 229 |
| Non-Temporal Medium | 133 | 145 | 75 | 85 | 102 | 163 | 187 | 207 | 216 |
| Non-Temporal Low | 131 | 144 | 68 | 79 | 96 | 156 | 182 | 201 | 210 |
| **FWR Input** | | | | | | | | | |
| Temporal High | 136 | 155 | 88 | 97 | 112 | 168 | 190 | 210 | 218 |
| Temporal Medium | 129 | 152 | 78 | 88 | 103 | 160 | 184 | 202 | 206 |
| Temporal Low | 129 | 151 | 76 | 86 | 101 | 160 | 184 | 194 | 201 |
| Non-Temporal High | 142 | 161 | 103 | 112 | 126 | 181 | 203 | 221 | 229 |
| Non-Temporal Medium | 134 | 155 | 85 | 95 | 110 | 166 | 189 | 208 | 216 |
| Non-Temporal Low | 132 | 154 | 80 | 90 | 105 | 161 | 184 | 202 | 211 |

**UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135–185 cd)**

| | 16–33 Volts | | | | | 16–33 Volts | | | |
|---|---|---|---|---|---|---|---|---|---|
| DC Input | 135 | 150 | 177 | 185 | FWR Input | 135 | 150 | 177 | 185 |
| Temporal High | 245 | 259 | 290 | 297 | Temporal High | 215 | 231 | 258 | 265 |
| Temporal Medium | 235 | 253 | 288 | 297 | Temporal Medium | 209 | 224 | 250 | 258 |
| Temporal Low | 232 | 251 | 282 | 292 | Temporal Low | 207 | 221 | 248 | 256 |
| Non-Temporal High | 255 | 270 | 303 | 309 | Non-Temporal High | 233 | 248 | 275 | 281 |
| Non-Temporal Medium | 242 | 259 | 293 | 299 | Non-Temporal Medium | 219 | 232 | 262 | 267 |
| Non-Temporal Low | 238 | 254 | 291 | 295 | Non-Temporal Low | 214 | 229 | 256 | 262 |

## Candela Derating

For K series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

**Strobe Output (cd)**

| Listed Candela | Candela rating at –40°F |
|---|---|
| 15 | Do not use below 32°F |
| 15/75 | |
| 30 | |
| 75 | 44 |
| 95 | 70 |
| 110 | 110 |
| 115 | 115 |
| 135 | 135 |
| 150 | 150 |
| 177 | 177 |
| 185 | 185 |

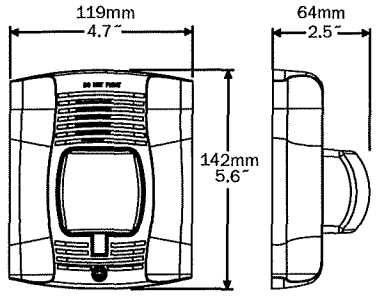
## Horn Tones and Sound Output Data

**Horn and Horn Strobe Output (dBA)**

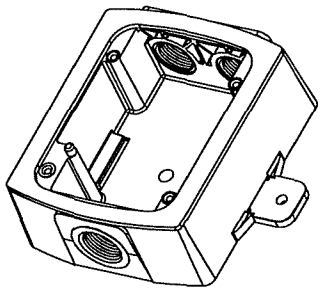
| | | | 8–17.5 Volts | | 16–33 Volts | | 24-Volt Nominal | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Reverberant | | Anechoic | |
| Switch Position | Sound Pattern | dB | DC | FWR | DC | FWR | DC | FWR | DC | FWR |
| 1 | Temporal | High | 78 | 78 | 84 | 84 | 88 | 88 | 99 | 98 |
| 2 | Temporal | Medium | 74 | 74 | 80 | 80 | 86 | 86 | 96 | 96 |
| 3 | Temporal | Low | 71 | 73 | 76 | 76 | 83 | 80 | 94 | 89 |
| 4 | Non-Temporal | High | 82 | 82 | 88 | 88 | 93 | 92 | 100 | 100 |
| 5 | Non-Temporal | Medium | 78 | 78 | 85 | 85 | 90 | 90 | 98 | 98 |
| 6 | Non-Temporal | Low | 75 | 75 | 81 | 81 | 88 | 84 | 96 | 92 |
| 7† | Coded | High | 82 | 82 | 88 | 88 | 93 | 92 | 101 | 101 |
| 8† | Coded | Medium | 78 | 78 | 85 | 85 | 90 | 90 | 97 | 98 |
| 9† | Coded | Low | 75 | 75 | 81 | 81 | 88 | 85 | 96 | 92 |

†Settings 7, 8, and 9 are not available on 2-wire horn strobe.

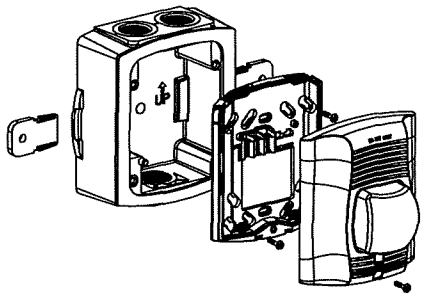
## SpectrAlert Advance Diagrams




Wall-Mount Horn Strobes



Wall Plastic Weatherproof Back Box



Wall-Mount Horn Strobe with Plastic Weatherproof Back Box

## SpectrAlert Advance Ordering Information

| Model | | Description |
|---|---|---|
| **Red** | **White** | |
| **Wall Horn Strobes** | | |
| P2RK | P2WK | 2-Wire Horn Strobe, Standard cd, Outdoor (includes plastic weatherproof back box) |
| P2RK-P | P2WK-P | 2-Wire Horn Strobe, Standard cd, Outdoor, Plain (includes plastic weatherproof back box) |
| P2RK-R | P2WK-R | 2-Wire Horn Strobe, Standard cd, Outdoor (does not include plastic weatherproof back box) |
| P2RHK | P2WHK | 2-Wire Horn Strobe, High cd, Outdoor (includes plastic weatherproof back box) |
| P2RHK-P | P2WHK-P | 2-Wire Horn Strobe, High cd, Outdoor, Plain (includes plastic weatherproof back box) |
| P2RHK-R | P2WHK-R | 2-Wire Horn Strobe, High cd, Outdoor (does not include plastic weatherproof back box) |
| P4RK | P4WK | 4-Wire Horn Strobe, Standard cd, Outdoor (includes plastic weatherproof back box) |
| P4RK-R | — | 4-Wire Horn Strobe, Standard cd, Outdoor (does not include plastic weatherproof back box) |
| P2RHK-120 | — | 2-Wire Horn Strobe, High cd, Outdoor, 120 V (includes plastic weatherproof back box) |
| **Wall Strobes** | | |
| SRK | SWK | Strobe, Standard cd, Outdoor (includes plastic weatherproof back box) |
| SRK-P | SWK-P | Strobe, Standard cd, Outdoor, Plain (includes plastic weatherproof back box) |
| SRK-R | SWK-R | Strobe, Standard cd, Outdoor (does not include plastic weatherproof back box) |
| SRHK | SWHK | Strobe, High cd, Outdoor (includes plastic weatherproof back box) |
| SRHK-P | SWHK-P | Strobe, High cd, Outdoor, Plain (includes plastic weatherproof back box) |
| SRHK-R | SWHK-R | Strobe, High cd, Outdoor (does not include plastic weatherproof back box) |
| **Horns** | | |
| HRK | — | Horn, Red, Outdoor (includes plastic weatherproof back box) |
| HRK-R | — | Horn, Red, Outdoor (does not include plastic weatherproof back box) |
| **Accessories** | | |
| SA-WBB | SA-WBBW | Metal Weatherproof Back Box |
| WTP | WTPW | Metal Weatherproof Outdoor Flush-mounting Plate |

**Notes:**
All -P models have a plain housing (no "FIRE" marking on cover). All -R models require metal weatherproof outdoor flush mounting plate or a metal weatherproof outdoor back box (order separately). "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings. **When replacing standard outdoor units both the device and back box must be replaced.**

SYSTEM SENSOR®
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495
www.systemsensor.com


AVDS115-02 • 12/3/2019

MEYER GROUP ARCHITECTURE
RESPECTING OUR CLIENTS. RESPECTING OUR ENVIRONMENT.

**DULUTH OFFICE**
1600 Alworth Building
306 West Superior Street
Duluth, MN 55802
P: (218) 727-1330 | F: (218) 727-1338

2/19/2020

James Barclay
Assistant City Administrator
City of Cloquet
1307 Cloquet Avenue
Cloquet, MN 55720

**Re: City of Cloquet – Library – 2020 - Addition & Renovation**
**Proposal for Additional Engineering & Architectural Services**
**Meyer Group Project (No: 18-037)**

James,

On behalf of our team, thank you for giving us the opportunity to work with the City of Cloquet on this project. Enclosed is our Fee Proposal for Additional Architecture and Engineering Services for the above referenced project.

Based our original Owner-Architect Agreement & Scope of Work, we are requesting Additional Services and an adjustment in our contract based on several areas of additional work requested and proceeded with:

*Our Current Contract /Fee*:

| | |
|---|---|
| $ 123,000 (base on 7% of Original Estimated Construction Cost) | **$ 123,000** |
| *Previous Adjustments* | |
| - *Added MN B-3 Compliance* | $ 9,500 |
| - *Additional Plumbing Engineering* | $ 3,910 |
| - *Additional HVAC Engineering* | $ 6,400 |
| - *Additional Electrical Engineering* | $ 3,200 |
| *Current Contract Amount w/ Adjustments* | ***$ 146, 010*** |

*Additional Services – Beyond Original Scope of Work*

| | |
|---|---|
| - *Revised - Low Voltage Bidding & Coordination* | *$ 6,000* |
| - *Server / IT Relocation* | *$ 2,500 (includes Elec & Cabling revisions)* |
| - *Administrative Offices – Planning* | *$ 3,500* |
| - *Teen Area – Additional Decorative Design* | *$ 2,000* |
| - *Architectural Revisions (Relative to Value-Engineering)* | *$ 10,000 (does not include Mezzanine Removal)* |

- *Site Plan – Revised Utility Connections*
- *Demo Plan – Salvage Notes*
- *Door Schedule – Keying Schedule, Hardware, Card Readers*
- *Casework – Revised Details*
- *Roof Plan – Soffit & Ventilation Details*
- *Wall details – Interior elevations*
- *Floor Plan, Details – Book Drop*
- *Finish Plan – Flooring*
- *Additional Roof Vent Details*

| | |
|---|---|
| ***Total Additional Services – This Request*** | ***$ 24,000*** |
| ***Total New Contract Amount*** | ***$ 170, 010*** |

*At this point of the project, we are currently at over $231,000 of Architectural Labor on the project, not including Consultant fees, with several months of work remaining. So, at this point feel compelled to request additional compensation to offset our cost of providing these services to the City of Cloquet.*

*Attached, please find a Project Labor Report for the Library project, with our total labor spent to date, for your information.*

Please feel free to contact me with any questions you may have on this request for additional services.

MEYER GROUP ARCHITECTURE
RESPECTING OUR CLIENTS. RESPECTING OUR ENVIRONMENT.

**DULUTH OFFICE**
1600 Alworth Building
306 West Superior Street
Duluth, MN 55802
P: (218) 727-1330 | F: (218) 727-1338

Sincerely,

Tim Meyer, AIA, CID, NCARB, LEED AP
Principal Architect

cc Rebecca Butler – Accountant; File

## *2020 – Standard Hourly Rates*

| | |
|---|---|
| Principal Architect | $ 180.00 / Hr |
| Project Architect | $ 140.00 / Hr |
| Project Manager | $ 135.00 / Hr |
| Landscape Architect | $ 130.00/ Hr |
| Project Designer | $ 100.00 / Hr |
| Interior Designer | $ 95.00 / Hr |
| Intern/Designer 1 | $ 80.00/ Hr |
| Intern/Designer 2 | $ 90.00/ Hr |
| Intern/Designer 3 | $ 100.00/ Hr |
| Planner | $ 95.00/Hr |
| Grant-writer | $ 75.00/ Hr |
| CAD Technician 1 | $ 80.00 / Hr |
| CAD Technician 2 | $ 90.00/ Hr |
| Senior CAD Technician | $ 95.00/ Hr |
| 3-D Technician | $ 80.00 / Hr |
| Graphic Designer | $ 80.00 / Hr |
| Clerical | $ 55.00 / Hr |

**Reimbursable Expenses:**

Expenses connected with the work such as travel, vehicle rental, equipment rental, subsistence, lodging, etc., will be charged at cost. Outside consultants, soil testing service, etc. will be charged at cost plus 10%. Vehicle mileage will be charged at $0.62 per mile, if required.

Rates Effective: 1/1/2020

**End of Proposal**

CLOQUET

DEPARTMENT OF PUBLIC WORKS

101 14th Street; Cloquet, MN 55720
Phone: (218) 879-6758 Fax: (218) 879-6555
Street - Water - Sewer – Engineering - Park
www.cloquetmn.gov

# REQUEST FOR COUNCIL ACTION

| | |
|---|---|
| To: | Mayor and City Council |
| From: | Caleb Peterson, Public Works Director |
| Reviewed By: | Tim Peterson, City Administrator TCP |
| Date: | March 5, 2020 |

**ITEM DESCRIPTION:** Disposal of Surplus Equipment

**Proposed Action**
Staff recommends the City Council move to authorize the sale of listed surplus equipment.

**Background**
In doing annual equipment inventory, staff has identified various miscellaneous items which are no longer needed and require disposal. When disposing items that have salvage value, the City must be careful to follow applicable state law. As per past practice, staff proposes to offer these times for sale through the local online auction service Lots 4 Bid.

**Surplus Equipment:**

- 2007 GMC K-2500 4X4 Vin# 1GTH34K77E582633
- Used Hockey Zamboni for parts
- 1970's Miller WD-5 diesel 500 Amp welder/generator Vin# HF857071
- 1968 Lincoln TM 300/300 stick welder
- 6- wrought iron park benches
- Basketball hoop
- Old security cameras from Pump Station #2
- Genie duel person 750 LB lift model #DPL30SP
- Northstar model 328272D pull behind lawn sprayer
- Bobcat skid steer snow bucket
- Mixed Steel concrete forms
- 22 ton air/hydraulic floor jack
- 1968 Wayne 220V 30 Gal. Air Compressor

**Policy Objectives**
To dispose of surplus equipment in accordance with State Statue.

**Financial/Budget/Grant Considerations**
It has been determined that it is no longer financially feasible to maintain these items in inventory or they are no longer needed by the City. This surplus equipment does have some salvage value and this money would be returned to the appropriate department fund accounts.

**Advisory Committee/Commission Action**
N/A

**Supporting Documents Attached**
N/A

CLOQUET

**DEPARTMENT OF PUBLIC WORKS**

101 14th Street; Cloquet, MN 55720
Phone: (218) 879-6758 Fax: (218) 879-6555
Street - Water - Sewer – Engineering - Park
www.cloquetmn.gov

# REQUEST FOR COUNCIL ACTION

| | |
|---|---|
| To: | Mayor and City Council |
| From: | Caleb Peterson, Public Works Director |
| Reviewed By: | Tim Peterson, City Administrator |
| Date: | March 5, 2020 |

**ITEM DESCRIPTION:** Tandem Axle Trailer Purchase

**Proposed Action**
Staff recommends that the City Council move to authorize the purchase of a Nova CT014 Tandem Axle Trailer from Pine River Sales in an amount not to exceed $8,100.00.

**Background/Overview**
As part of the adopted 2020 Capital Improvement Program (CIP) and budget, Public Works is scheduled to purchase a tandem axle equipment trailer. The replacement of Unit 304 is included in the equipment replacement schedule due to suspension issues and general deterioration. The unit is currently 20 years old and will be traded or sold at auction upon replacement. This unit is used on a regular basis to transport the Department's trench box to all dig/underground repair sites. This critical piece of safety equipment is mandated by OSHA at virtually all underground work sites where Staff entry into the hole is required.

The Public Works Department has obtained quotes from two local dealers as follows:

| Trailer Model | Supplier | Bid Price |
|---|---|---|
| NOVA CTO14 | Pine River Sales, Inc. | $8,082.75 |
| Felling FT-12-2 | Widdes Trailer Sales | $14,600.00 |

**Policy Objectives**
To replace/purchase necessary equipment in accordance with the approved Capital Improvement Plan.

**Financial/Budget/Grant Considerations**
The 2020 Budget includes $10,000.00 for this purchase from the water fund. After a review of the proposals, it is recommended the bid be awarded to Pine River Sales in an amount not to exceed $8,100.

**Advisory Committee/Commission Action**
N/A

**Supporting Documentation Attached**
N/A