LEGEND AND EQUIPMENT SCHEDULE

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>1</td>
<td>INSTALL LED LUMINARE - KELLY HAPKIN POST TOP - 70W</td>
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<tr>
<td>2</td>
<td>INSTALL LED LUMINARE - KELLY HAPKIN POST TOP - 105W</td>
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<tr>
<td>3</td>
<td>INSTALL LED LUMINARE - LESTER AREA - 135W</td>
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<td>4</td>
<td>INSTALL LED LUMINARE - LESTER AREA - 95W</td>
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<tr>
<td>5</td>
<td>INSTALL LED LUMINARE - KELLY HAPKIN POST TOP - 125W</td>
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<tr>
<td>6</td>
<td>INSTALL LED LUMINARE - KELLY HAPKIN POST TOP - 105W</td>
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<tr>
<td>7</td>
<td>INSTALL LED RETROFIT KIT - KELLY HAPKIN POST TOP - 105W</td>
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<tr>
<td>8</td>
<td>INSTALL LED LUMINARE - KELLY HAPKIN POST TOP - 95W</td>
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<tr>
<td>9</td>
<td>INSTALL LED RETROFIT KIT - KELLY HAPKIN POST TOP - 105W</td>
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<tr>
<td>10</td>
<td>INSTALL LED RETROFIT KIT - STERNBERG 1610 LED PENDANT - 66W</td>
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<tr>
<td>11</td>
<td>INSTALL LED RETROFIT KIT - STERNBERG 0753 LED ADAPTR - 91W</td>
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<tr>
<td>12</td>
<td>INSTALL LED LUMINARE - KELLY HAPKIN POST TOP - 90W</td>
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<tr>
<td>13</td>
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<td>17</td>
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<tr>
<td>18</td>
<td>INSTALL RETROFIT KIT - KELLY HAPKIN POST TOP - 90W</td>
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</tbody>
</table>

NOTE: ALL LED LUMINARES, RETROFIT KITS, AND LIGHTING CONTROLLERS WILL BE FURNISHED BY THE CITY OF DULUTH TO THE CONTRACTOR.
3) 4 LUMINAIRE UPGRADES AT THIS LOCATION.

12) 4 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
1st Street – 12th to 13th Avenue East

Remove Existing Sternberg Riverwalk Coach Luminaire. Remove pole riser conductors. 4 total luminaires.

Install City furnished Holophane PTU Post-Top LED 70-watt Luminaire and powerline lighting controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.
3A 31 LUMINAIRE UPGRADES AT THIS LOCATION.
Wallace Avenue – East 4th Street to Arrowhead Road

Remove existing Holophane Post-top Luminaire. Remove pole riser conductors. 31 total luminaires.

Install City furnished Holophane PTU Post-Top 105-watt LED Luminaire. Furnish and install (3) #12 XHHW conductors from branch circuiting to luminaire including all necessary fusing and splicing equipment.
Remove existing Sterner Executive Shoebox Luminaire. Remove pole riser conductors. 15 total luminaires.

Install City furnished Leotek Arieta 155-watt or 65-watt LED Luminaire with shorting cap. Furnish and install (3) # 12 XHHW conductors from branch circuiting to luminaire including all necessary fusing and splicing equipment.
Remove existing Sterner Post Top Marina Style Luminaire. Remove pole riser conductors. 5 total luminaires.

Install City furnished Holophane Washington Post Top LED Luminaire. Furnish and install (3) # 12 XHHW conductors from branch circuiting to luminaire including all necessary fusing and splicing equipment.
Morgan Park – 88th Avenue West from Concord Street to Hilton Street

Remove existing Architectural Area Lighting Pendant Luminaire and Shepherd Hook arm assembly. Remove pole riser conductors. 30 total luminaires.

Install City furnished Hallbrook Pendant LED Luminaire and Arm Assembly and powerline lighting controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.
Hawk Ridge – Snowy Owl Circle, Bald Eagle Trail, Broadwing Drive, Redtail Drive

Remove existing Holophane Vienna and Bern Lower Luminaire Housing. Remove pole riser conductors. 10 total Luminaires.

Install City furnished Holophane Bern Pendant LED Lower Housing Retrofit Kit. Install 13 City furnished powerline lighting controllers (includes controllers for (3) existing luminaires). Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.
9 LUMINAIRE UPGRADES AT THIS LOCATION.

9 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
Remove existing Holophane Bern Luminaire. Remove pole riser conductors. 9 total luminaires.

Install City furnished Holophane Bern Pendant LED Luminaire and powerline lighting controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment. Install City furnished Swivel Nipple as required.
(7A) 7 LUMINAIRE UPGRADES AT THIS LOCATION.

(12) 7 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
Northridge Estates – Northridge Drive

Remove existing Holophane Bern Luminaire. Remove pole riser conductors. 7 total luminaires.

Install City furnished Holophane Bern Pendant LED Luminaire and powerline lighting controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment. Install City furnished Swivel Nipple as required.
21 LUMINAIRE UPGRADES AT THIS LOCATION.

21 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
Remove existing Holophane internal (HPS) lamp and ballast assembly. Remove pole riser conductors. 21 total luminaires.

Install City furnished Holophane Granville LED Retrofit Kit and power line controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.
82 LUMINAIRE UPGRADES AT THIS LOCATION.

82 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
99 LUMINAIRE UPGRADES AT THIS LOCATION.

99 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
Central Avenue-Grand Avenue to I-35. Grand Avenue – Central Avenue to 59th Avenue West

Remove existing Holophane Granville lamp and ballast assembly. Remove pole riser conductors. 181 total luminaires.

Install City furnished Holophane Granville LED Retrofit Kit and powerline lighting controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.
6 LUMINAIRE UPGRADES AT THIS LOCATION.

10 LUMINAIRE UPGRADES AT THIS LOCATION.

18 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
Remove existing Holophane Granville & Sternberg G793 Acorn lamp and ballast assembly. Remove pole riser conductors. 18 total luminaires – 6 Holophane and 12 Sternberg.

Install City furnished Holophane Granville LED Retrofit Kit or Sternberg G793 LED Acorn Retrofit Kit and power line controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.
8. 4 LUMINAIRE UPGRADES AT THIS LOCATION.

12. 4 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
Lincoln Park – West 10th Street Bridge

Remove existing Holophane Utility Granville lamp and ballast assembly. Remove pole riser conductors. 4 total luminaires.

Install City furnished Holophane Granville LED Retrofit Kit and powerline lighting controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.
Remove existing Sternberg 1910 Pendant lamp and ballast assembly. Remove pole riser conductors. 8 total luminaires.

Install City furnished Sternberg 1930 LED Pendant Retrofit Kit and powerline lighting controller. Furnish and install (5) #12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.
51 LUMINAIRE UPGRADES AT THIS LOCATION.

51 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
10. 35 LUMINAIRE UPGRADES AT THIS LOCATION.

12. 35 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
Remove existing Sternberg G793 Acorn lamp and ballast assembly. Remove pole riser conductors. 86 total luminaires.

Install City furnished Sternberg G793 LED Acorn Retrofit Kit and powerline lighting controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment. Maintain function of internal house-side shield.
49 LUMINAIRE UPGRADES AT THIS LOCATION.

49 POWERLINE CONTROLLER UPGRADES AT THIS LOCATION.
Upper Piedmont – Hutchinson Road to Haines Road

Remove existing Sun Valley LCGR Acorn Luminaire. Remove pole riser conductors. 49 total luminaires.

Install City furnished Holophane Granville LED Acorn Luminaire and powerline lighting controller. Furnish and install (5) # 12 XHHW conductors from branch circuiting and controller to luminaire including all necessary fusing and splicing equipment.