



MUNICIPAL LIGHT & POWER ENGINEERING DIVISION MEMORANDUM

2018 - 0057

DATE: March 28, 2018

TO: Planning Division, Community Development Director

THRU: Gary A. Agron, Division Manager, Engineering, ML&P
Victor R. Willis, Line Design & Planning Supervisor, ML&P *28-Mar-2018* *ML&P 3-28-18*

FROM: Jake K. Moe, P.E., Senior Line Design Engineer, ML&P *JM*

SUBJECT: Title 21.07.050 – Underground Ordinance: ML&P's 5-Year Plan

In accordance with Title 21.07.050, and pursuant to AS 42.05.381, the attached document notifies the MOA Planning Director, and utilities and entities with lines attached to ML&P poles, advanced notice of underground projects (2018-2022), approved by the General Manager of ML&P.

As an owner of electric utility poles in the Anchorage area, the Municipal Assembly requires ML&P to expend at least two percent of its gross annual retail revenues from sales within the Municipality of Anchorage to remove poles supporting nonconforming overhead utility lines and place the lines underground. ML&P has prepared you eleven (11) copies of the five-year (2018-2022) undergrounding plan for converting existing overhead lines to underground. ML&P forwarded electronic copies of the plan to all utilities and entities below.

In 2017, ML&P completed one large underground project, "Eureka Street & Fireweed Lane". On this project, all but one pole remain because attached utilities did not remove their facilities or an attached street light remained on the pole. ML&P cut the top of the pole off and transferred ownership to the remaining attached utility.

If you have any questions regarding ML&P's five-year undergrounding plan, please contact me (263-5407) at your convenience.

cc: Mark A. Johnston, General Manager	Rick Williams, GCI
Chris Schutte, Executive Director of ECD	Bobby Stone, ACS
Mollie Morrison, Finance Manager	Heather Cavanaugh, ACS
Tim Prior, Manager, Operations Division	Rebecca Colton, GCI
Jerry Hansen, PM&E	



**ML&P 5-YEAR PLAN
2018-2022**

**FOR THE REMOVAL
OF NON-CONFORMING OVERHEAD LINES
IN ACCORDANCE WITH MOA TITLE 21.07.050**

I. INTRODUCTION

Municipal Light and Power, ML&P, has been placing new distribution lines underground since the 1960s and burying existing overhead distribution lines since the early 1980s. On March 1, 2005, the Anchorage Assembly amended Title 21.07.050 to require Anchorage utilities to spend 2% of a three-year rolling average of the utility's annual gross retail revenues derived from utility service connections within the Municipality to underground existing overhead lines with the intent to accelerate the pace of burying existing overhead lines. Today the majority of ML&P's distribution system is underground. Pursuant to the Municipal Ordinance, ML&P annually develops a five-year plan which is submitted to the Municipal Planning Department for review and comment. The Plan identifies the location of lines anticipated to be buried in the coming five years. Some overhead distribution lines may never be buried due to conditions such as safety, soil conditions, and/or steep terrain. Electric lines of 69,000 volts and higher, considered Transmission, and are not required to be buried due to excessive cost and technical reasons at this point in industry development. Also, any other utility that attaches to ML&P poles is supposed to place its lines underground at the same time as per the Title 21 Ordinance. For more information, including answers to frequently asked questions, please visit the ML&P Underground webpage at <https://www.mlandp.com/News/Projects-Construction/Undergrounding>

II. PROJECT SELECTION

ML&P has set up a Title 21.07.050 Review Committee to identify potential projects to be included in its Five Year Plan. Decisions concerning which lines shall be buried and when depend on numerous factors. An evaluation review sheet is used that assesses potential projects and facilitates project priority decisions for the Committee. Some factors considered in project evaluations are:

- If there is an electrical system betterment derived that improves system condition or is required to meet forecasted load growth
- Where there are National Electrical Safety Code, NESC, issues can be improved by removing overhead lines
- Age of the facilities in the proposed project area
- View shed areas or areas with a high degree of public visibility
- Demonstrated neighborhood desire and support for a project
- Where other undergrounding project opportunities arise in conjunction with road or sewer/water projects or projects of other "wire" utilities
- Where undergrounding would eliminate an unusually heavy concentration of overhead electric lines.
- Where the street or general area is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic

III. PROJECT LISTING

The following spreadsheet lists the projects ML&P has identified for undergrounding within the next 5 years. Projects that were started but not completed last year will be completed during the following summer. Summary sheets are included for each project that identifies the general area where conversion from overhead to underground facilities is expected. As much as ML&P would like this five-year plan to be static, there are circumstances where other necessary but

unforeseen projects may preempt and change the anticipated timing of any project listed in any Five Year Plan.

IV. FUTURE PROJECT CONSIDERATIONS

ML&P receives requests for undergrounding from diversified sources. The requests that did not make the current five year plan will remain on ML&P's list of potential undergrounding project for re-evaluation each year. These projects are listed below in alphabetical order.

DESCRIPTION

9th/10th Alley: Cordova to Karluk
 10th/11th Alley: P Street to L Street
 11th & C Street
 11th Alley – A Street to Cordova
 11th/13th: Cordova to Gambell
 12th Ave: U Street to P Street
 13th & P Street
 14th & N Street
 15th & LaTouche
 16th & K Street
 20th & Norene Street
 40th & Wright Street
 42nd & Arctic Street
 42nd & Brantley
 Airport Heights Road
 Airport Heights School – 16th & Alder
 Alder Drive & 17th Ave
 Arctic Blvd. to Aurora St. -19th to 22nd
 B Street – 40th to Tudor
 Barrow – 26th Avenue
 Carlson Park - Stanford & Cornell Drive
 College Gate Elementary - 30th & Boniface
 Columbine Street - 16th to Debarr
 Cornell Court – Emory St.
 Cottonwood & Glennwood
 Culver Place – 22nd to 24th
 Eide St. & 33rd Ave
 Esquire/Forest Park Alley

DESCRIPTION

Fairbanks & Gambell alley, near Fireweed
 Frontierland Park - 10th & E Street
 Garden Street - 15th & Sunrise Dr.
 Hillcrest Drive, east of Spenard
 Hollywood & Elm Street
 Hyder & 14th Avenue
 Inlet View Elementary – 12th & Inlet
 Kanchee Park - 3rd & Klevin
 Karluk Street – 4th to 10th
 Lawarance Court
 Lynn Drive & 40th
 Maplewood & 26th
 Maplewood/24th Trailhead
 Mt. View Lions Park
 Needle Circle
 North Star Street & 23rd Ave
 Old Seward – Tudor to 36th
 Orca Street: Merrill Field
 Park Street & 3rd Avenue
 Parkdale West Condos - 19th & Arctic
 Rogers Park Elementary–N.L. & LaTouche
 Salem Drive near MacInnes Street
 Seaforth Place to MacInnes Street
 Talkeetna & 17th
 Thompson Ave- Bragaw St. to Pine St
 Tudor & 42nd Alley
 Valley of the Moon Park – 17th & Arctic
 Winterset Drive near 36th
 Wonder Park School – 4th & Boniface

NOTES:

1. Projects listed are for planning purposes only. A listed project does not guarantee the project will be constructed in that respective year.
2. Costs for 2017 are actual as of 12/31/2017 Project Cost Reporting, all other chart amounts are estimated.
3. End of year construction for 2017 is expected to be greater than YTD. Actual money spent in 2017 will be reconciled in the first quarter of 2018.
4. Misc. Annual Constr. = Blanket Workorders (ex: overhead service retirements and a percentage of new services)
5. C = Outside Construction Expense, D = Design Expense & Procurement

***Ordinance Effective 6/1/05**

TITLE 21 PROJECT

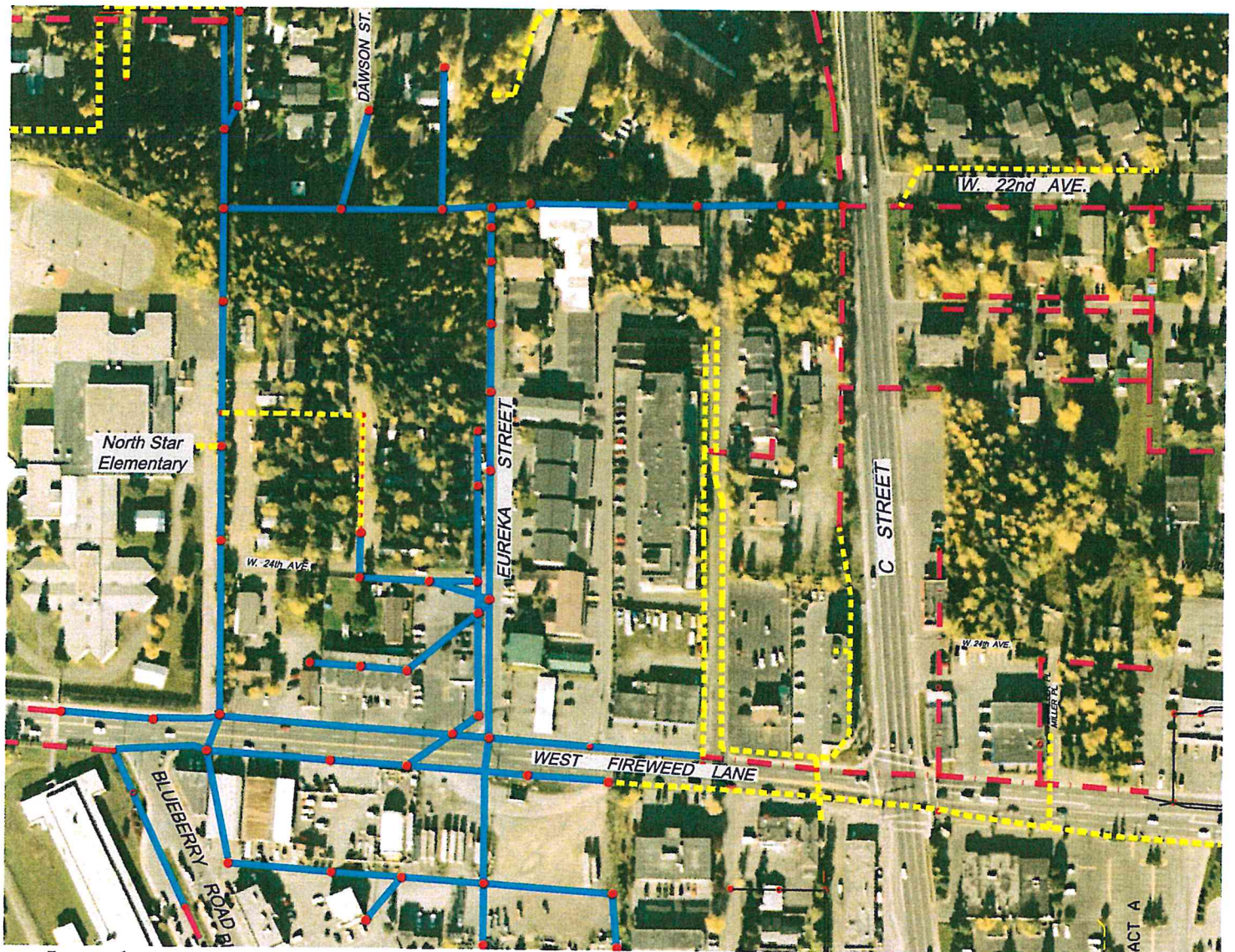
Eureka Street/Fireweed Lane

North Star Community Council: Wharton Subdivision



PROJECT COMPLETED: 2017

This project undergrounded overhead conductors in the Fireweed Lane area centered around Eureka Street. This project was in the Target Area described in the Title 21 Underground Ordinance because it removed overhead lines adjacent to a school site, North Star Elementary, and because a portion was in the area described as Mid-town.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1530

TITLE 21 PROJECT

Eureka Street/Fireweed Lane

North Star Community Council: Wharton Subdivision



BEFORE & AFTER PHOTOS

Photos taken facing west down Fireweed Lane just east of Eureka Street. Tops of poles were cut off so communication lines remain as they didn't participate in the underground project.



BEFORE



AFTER



TITLE 21 PROJECT

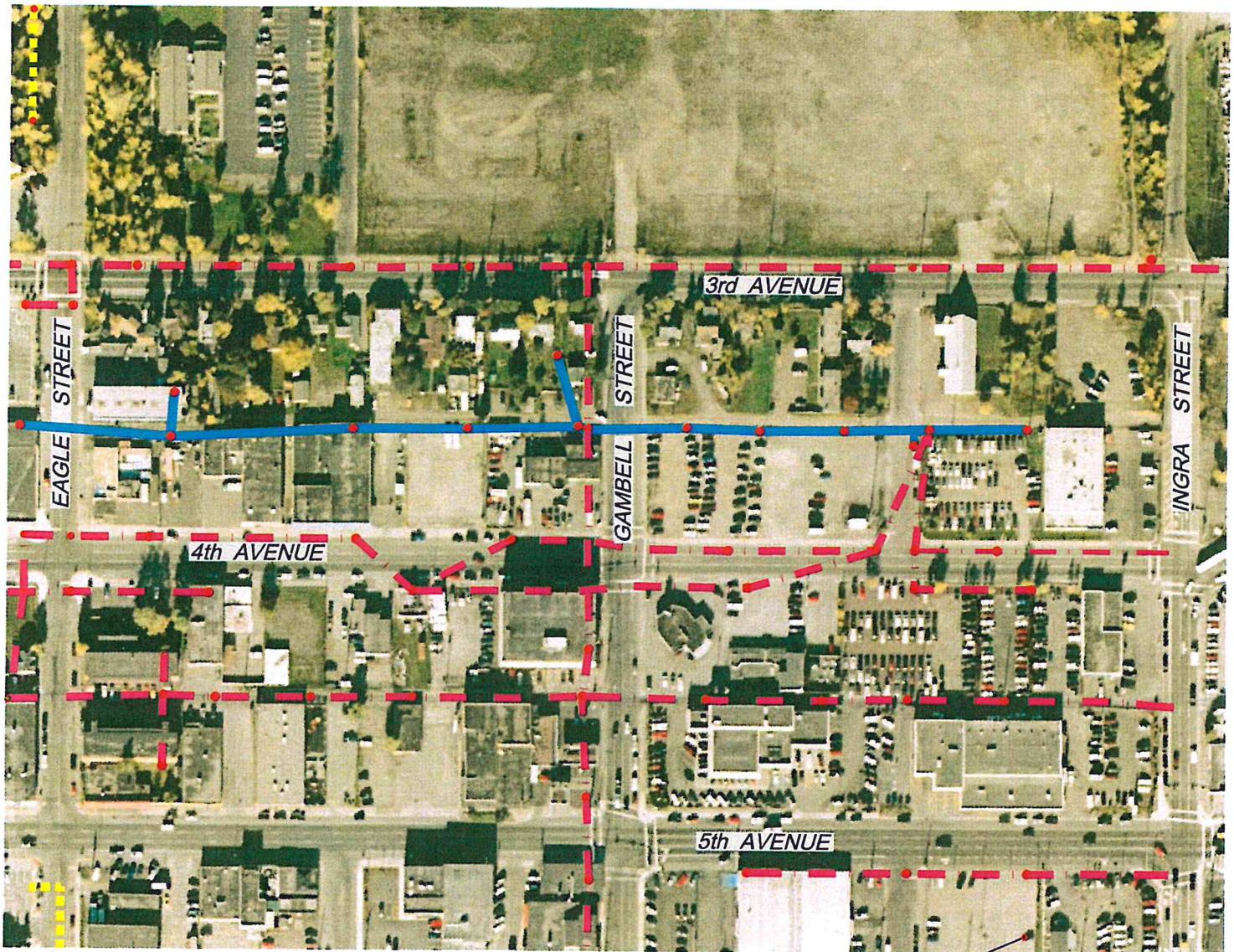
3rd & 4th Alley: Eagle to Ingra

Downtown Community Council: Anchorage Townsite East Addition Subdivision



PROJECT DESCRIPTION

This project will underground overhead power lines in the alley between 3rd & 4th Avenues extending from Eagle Street to Ingra Street. This line is currently on the 4.16kV system but will be upgraded to the 34.5kV or 12.47kV system when it goes underground. This project is in the target Area described in the Title 21 Underground Ordinance because it is located in the Central Business District. Also undergrounding lines that are tapped from the Gambell Street Utility Corridor will allow Gambell Street to one day be undergrounded.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1231

TITLE 21 PROJECT

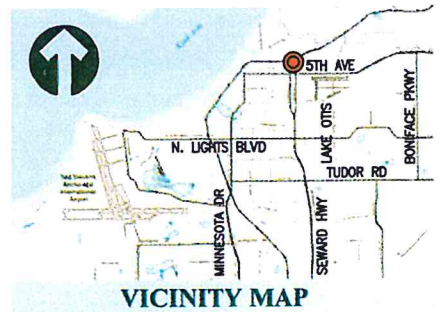
3rd & 4th Alley: Eagle to Ingra

Downtown Community Council: Anchorage Townsite East Addition Subdivision



BEFORE & AFTER PHOTOS

Photo taken facing west down the 3rd and 4th Alley near Gambell Street.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1231

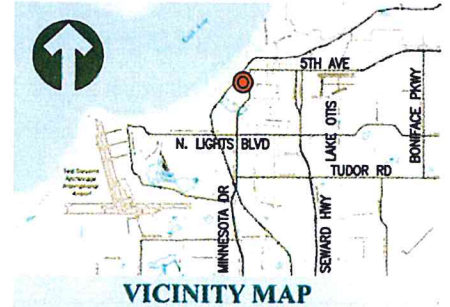
TITLE 21 PROJECT Bootleggers Cove

South Addition Community Council: L Street Slide Replat Subdivision



PROJECT DESCRIPTION

The first lines to underground begin at 5th Avenue and Pacific Place continuing south to 7th and up the bluff to 8th Avenue. The next two segments to underground are contingent on the acquisition of the necessary easements. One segment begins at 7th Avenue and Pacific Place and extends west to 'O' Place. The other segment begins on 7th at the alley between 'N' and 'O' Streets and terminates at the north end of the alley. This project is in the Target Area described in the Title 21 Underground Ordinance due to the proximity of two parks: Elderberry Park and Nulbay Park.



Legend

- Overhead line to be underground
- - - Overhead line to remain
- - - Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grids: 1229 & 1329

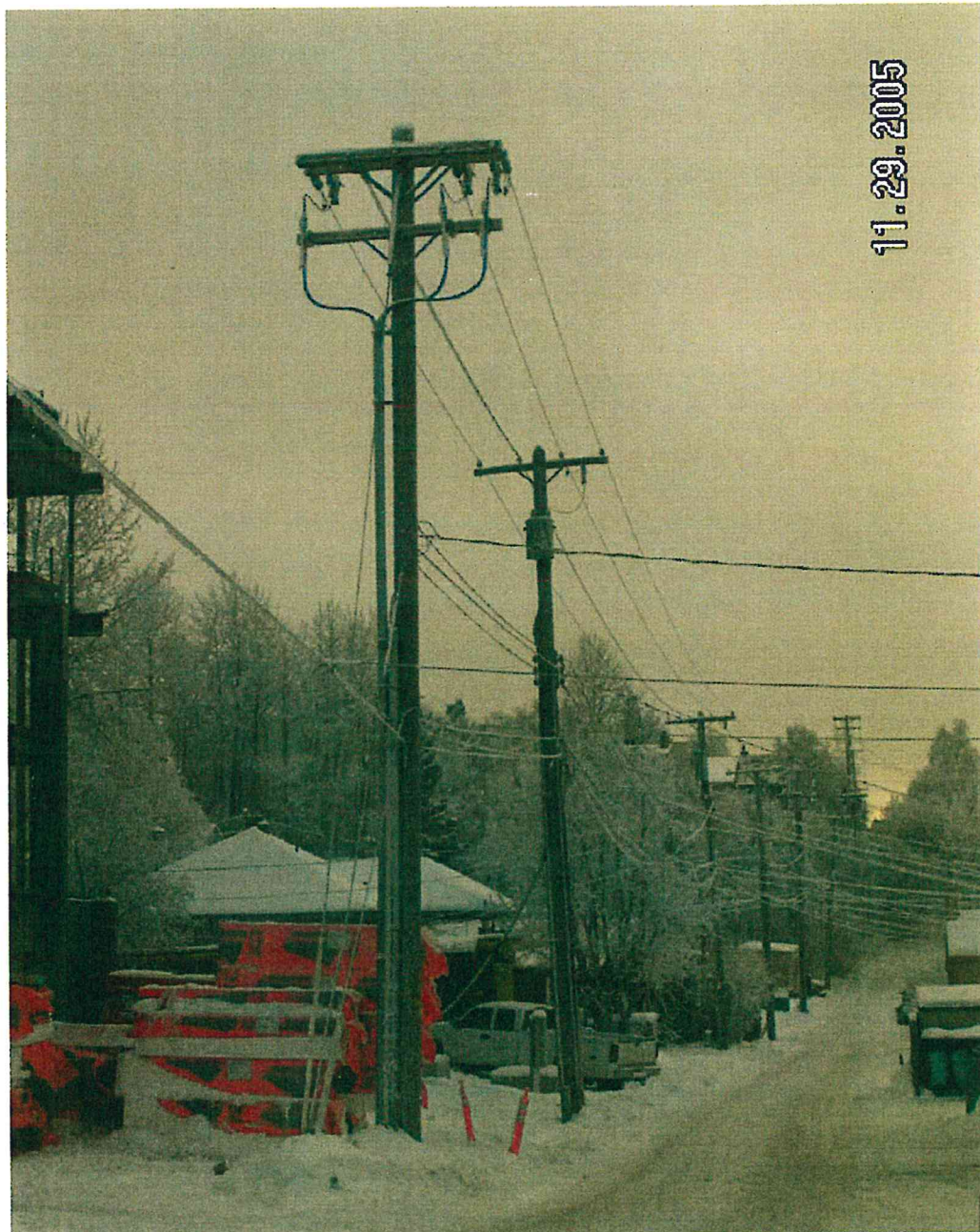
TITLE 21 PROJECT Bootleggers Cove

South Addition Community Council: L Street Slide Replat Subdivision



EXISTING PHOTO

Photo taken facing south down Pacific Place near the intersection of Pacific Place and West 5th Avenue.



For additional information contact Jake Moe (ML&P) 263-5407

Grids: 1229 & 1329



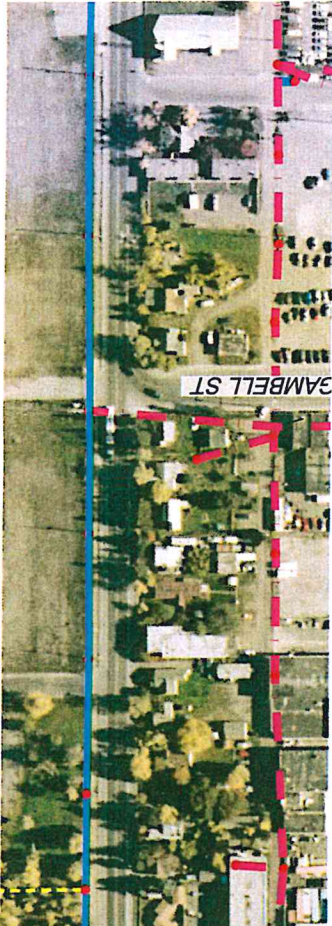
TITLE 21 PROJECT

3rd Avenue: Barrow Street to LaTouche Street

Downtown Community Council: Anchorage Townsite East Addition Subdivision

DESCRIPTION

This project will underground overhead powerlines along 3rd Avenue from Barrow Street to LaTouche Street. This line is currently on the 4.16kV system but will be upgraded to the 34.5kV or 12.47kV system when it goes underground. This project is in the Target Area described in the Title 21 Underground Ordinance because it is located in the Central Business District. This project is planned to be coordinated with a PM&E project along 3rd Avenue from Ingrá Street to Post Road. MOA will also be jointly involved in the project to install new lighting along 3rd Avenue.



- Legend
- Overhead line undergrounded
 - Overhead line to remain
 - Existing Underground line
 - Project location on Vicinity Map
 - Power Pole



Not to Scale
Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1231 & 1232

TITLE 21 PROJECT

3rd Avenue: Barrow St. to LaTouche St.

Downtown Community Council: Anchorage Townsite East Addition Subdivision



EXISTING PHOTO

Photo taken facing west down 3rd Avenue near LaTouche Street.



TITLE 21 PROJECT

Arctic Blvd & 27th

Spenard Community Council: Sunbeam Subdivision



PROJECT DESCRIPTION

This project will underground overhead conductors in back lot lines of 27th Avenue and the primary line on 27th Avenue. Transformers and pedestals will be installed as necessary to serve the residences affected by the removal of poles from 1529-62H to 1529-92E and from 1529-62A to 1529-92D and from 1529-61D to 1529-91H. This project is in a Target Area described in the Title 21 Underground Ordinance because it is in the area described as Mid-town.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1529

TITLE 21 PROJECT

Arctic Blvd & 27th

Spenard Community Council: Sunbeam Subdivision



EXISTING PHOTO

Photo taken west down 27th Avenue between Arctic Boulevard and Spenard Road.



TITLE 21 PROJECT

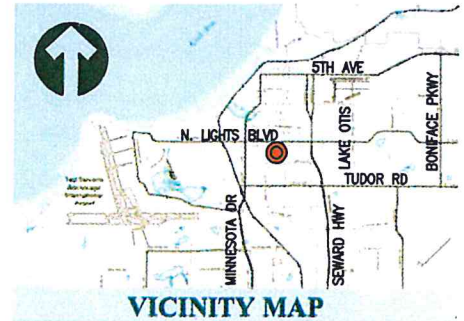
Arctic Benson Park

Midtown Community Council: Bel Aire Subdivision



PROJECT DESCRIPTION

This project will start at 31st Avenue and underground south through Arctic Benson Park, across 32nd Avenue and in the alley between Arctic Blvd. and Bering Street. Street light lines in the park will also be underground. This project is in the Target Area described in the Title 21 Underground Ordinance because it will remove overhead lines that go through a park and is in the area described as Mid-town. Additionally, MOA Parks and Recreation has requested that this line be underground.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1630

TITLE 21 PROJECT

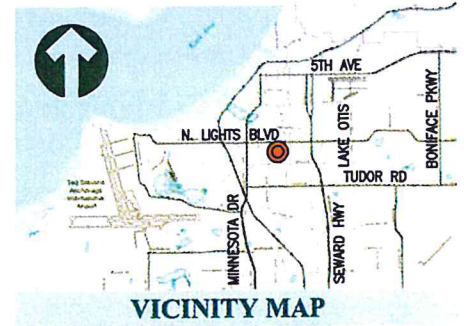
Arctic Benson Park

Midtown Community Council: Bel Aire Subdivision



EXISTING PHOTO

Photo taken facing east down West 32nd Avenue near the intersection of Arctic Boulevard and West 32nd Avenue.



TITLE 21 PROJECT

Mountain View Lions Park

Mountain View Community Council: Military Reserve Subdivision



PROJECT DESCRIPTION

This project will underground overhead power lines along McCarrey Street and Mountain View Drive. Overhead lines are currently located in the park and overhead structures disrupt audience seating arrangements of baseball games on the north field. This project is anticipated to occur simultaneously as the MOA Intersection Improvement Project at McCarrey Street and Mountain View Drive. This project is a top priority for the Mt. View Community Council. This project is the Target Area described in the Title 21 Underground Ordinance because the overhead lines are in a park.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1237

TITLE 21 PROJECT

Mountain View Lions Park

Mountain View Community Council: Military Reserve Subdivision



EXISTING PHOTO

Photo taken facing north near Blackburn Field in Lions Park. Notice downguy disrupts viewing from spectators to the ball field.



TITLE 21 PROJECT

Arctic to Aurora

North Star Community Council: Thompson Subdivision



PROJECT DESCRIPTION

This project will underground power lines in the neighborhood east of Arctic Blvd., south of 19th Avenue, north of 22nd Avenue and west of Aurora Drive. Currently there are access issues as the lines are located in backyards. This project has been requested by the neighborhood and is the top priority underground project in the North Star Community Council.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1430 & 1530

TITLE 21 PROJECT

Arctic to Aurora

North Star Community Council: Thompson Subdivision



EXISTING PHOTO

Photo taken facing west down West 21st Street near an alley between Blueberry Street and Borealis Drive.



For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1430 & 1530

TITLE 21 PROJECT

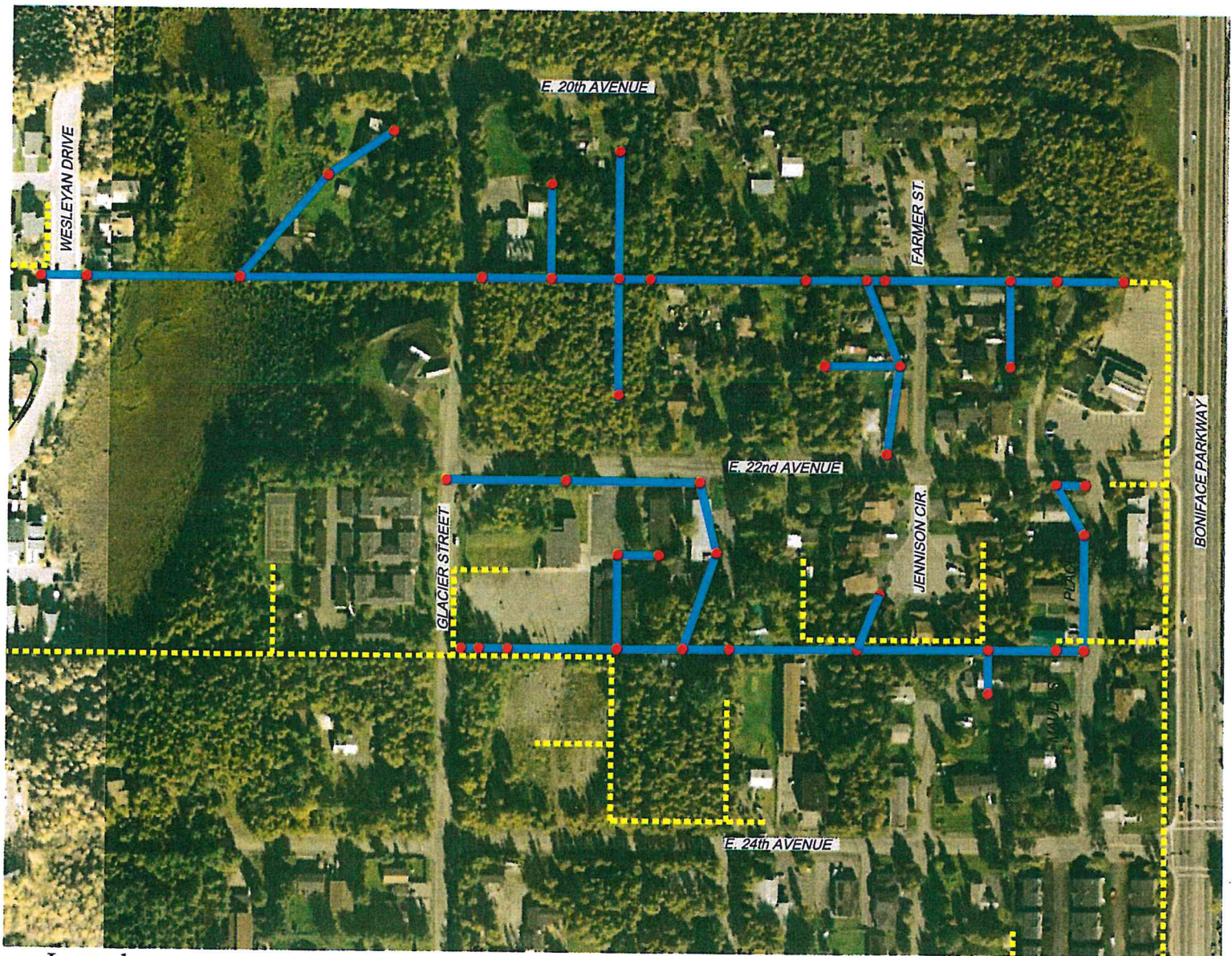
Glacier Street & 22nd Avenue

Russian Jack Community Council



PROJECT DESCRIPTION

This project will remove overhead electric lines west of Boniface Parkway and north of E. 24th Avenue. The new underground lines will connect primary loops for increased reliability. This area has seen a very high number of outages, especially due to high winds and squirrels. Restoring outages have been difficult due to accessibility issues. This project is in the Target Area described in the Title 21 Underground Ordinance because undergrounding these overhead lines will eliminate the power outage risk associated with the high winds. The MOA Planning Department issued a "Three Second Gust Wind Zones" map. This project is inside the highest wind speed in ML&P territory, 120 MPH.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid Map No: 1537

TITLE 21 PROJECT

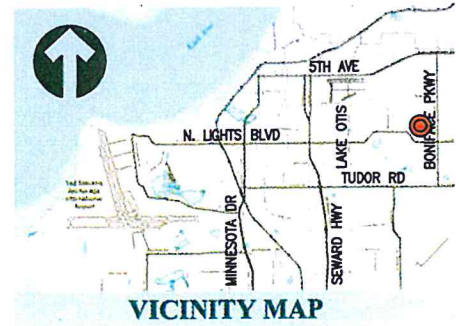
Glacier Street & 22nd Avenue

Russian Jack Community Council



EXISTING PHOTO

Photo taken facing west from Maudest Place down the overhead lines between East 22nd Avenue and East 24th Avenue.



TITLE 21 PROJECT

Logan Street: E. 17th Ave. to E. 20th Ave.

Airport Heights Community Council: City View Subdivision



PROJECT DESCRIPTION

This project will underground overhead conductors in east and west back lot lines of Logan Street from E. 17th Avenue to E. 20th Avenue. Multiple customers have requested these lines be undergrounded. The existing poles are some of the oldest in ML&P territory and there is safety and access issues resolved by undergrounding this area.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1434

TITLE 21 PROJECT

Logan Street: E. 17th Ave. to E. 20th Ave.

Airport Heights Community Council: City View Subdivision



EXISTING PHOTO

Photo was taken facing east into the backyards from Logan Street at an area between East 17th Avenue and East 20th Avenue. Note the pole top extension added to the pole to raise the distribution lines in order to get proper clearances.



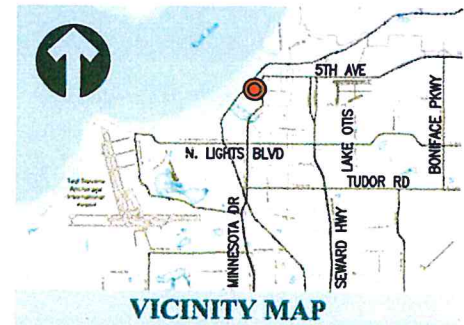
TITLE 21 PROJECT W. 9th Avenue & P Street

South Addition Community Council: L Street Slide Replat Subdivision



PROJECT DESCRIPTION

This project will underground overhead conductors along P Street, R Street, David Place, and W. 9th Avenue. Multiple customers have requested these lines be underground. This project is in a target area described in the Title 21 Underground Ordinance because existing overhead lines are adjacent to the Delaney Park Strip.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1328

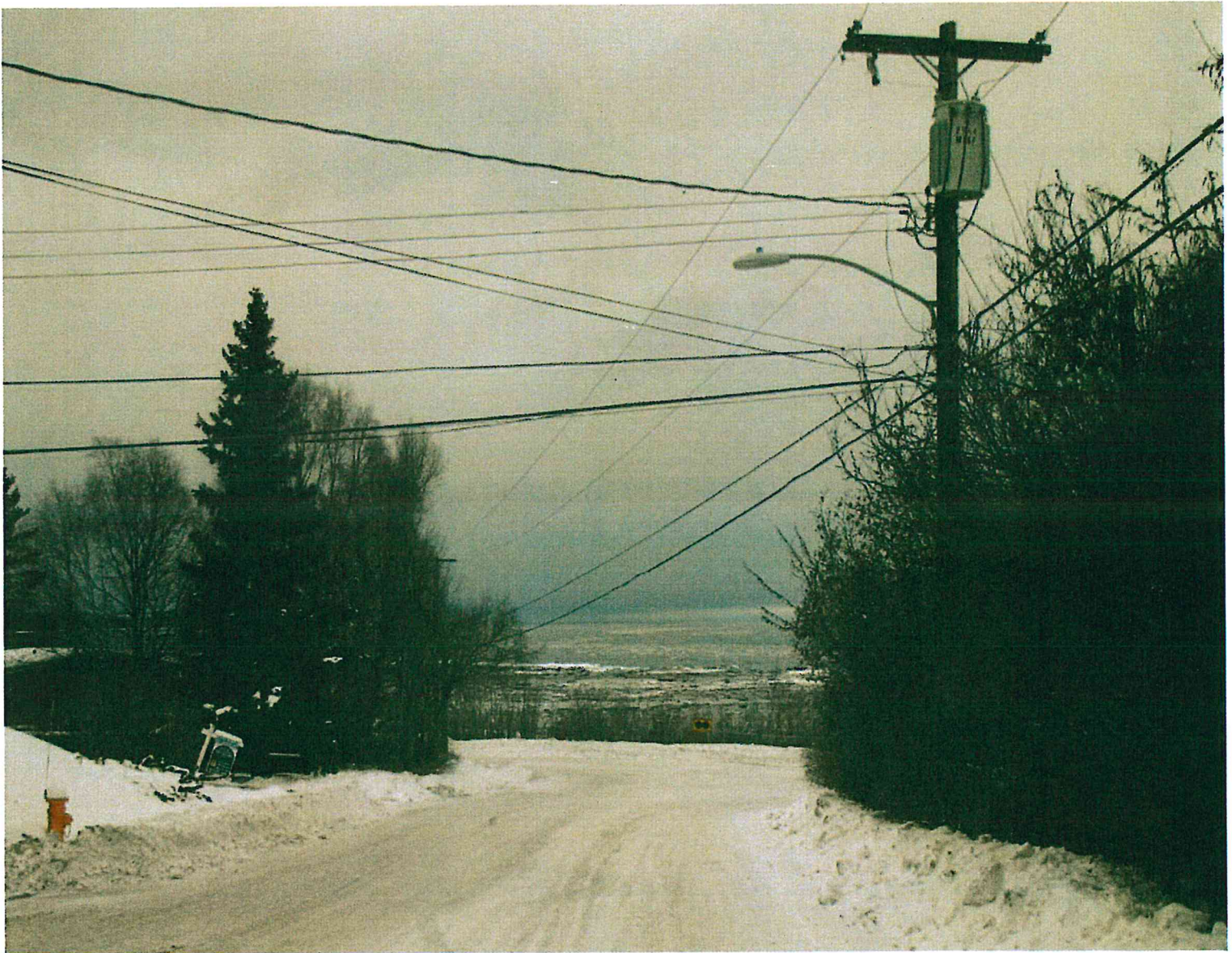
TITLE 21 PROJECT W. 9th Avenue & P Street

South Addition Community Council: L Street Slide Replat Subdivision



EXISTING PHOTO

Photo taken facing west down 9th Avenue towards the Inlet near the intersection of 9th Avenue and P Street.





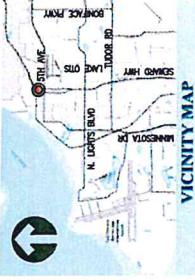
TITLE 21 PROJECT

Gambell Street: 3rd Avenue to 15th Avenue

Downtown Community Council: Anchorage Townsite East Addition Subdivision

DESCRIPTION

This project will underground overhead powerlines along Gambell Street from 3rd Avenue to the south side of 15th Avenue. This line has multiple system voltages on it. This project is planned to be in conjunction with an Alaska DOT project that will also be upgrading the street lighting. This project will not be occurring without participation of Alaska DOT. Gambell Street is described as a Target Area outlined in the Title 21 Underground Ordinance.



Legend

- Overhead line undergrounded
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

Grid: 1231, 1331 & 1431

For additional information contact lake Moe (ML&P) 263-5407

TITLE 21 PROJECT

Gambell Street: 3rd Avenue to 15th Avenue

Downtown Community Council: Anchorage Townsite East Addition Subdivision



EXISTING PHOTO

Photo taken facing north down Gambell Street near 14th Avenue.



TITLE 21 PROJECT

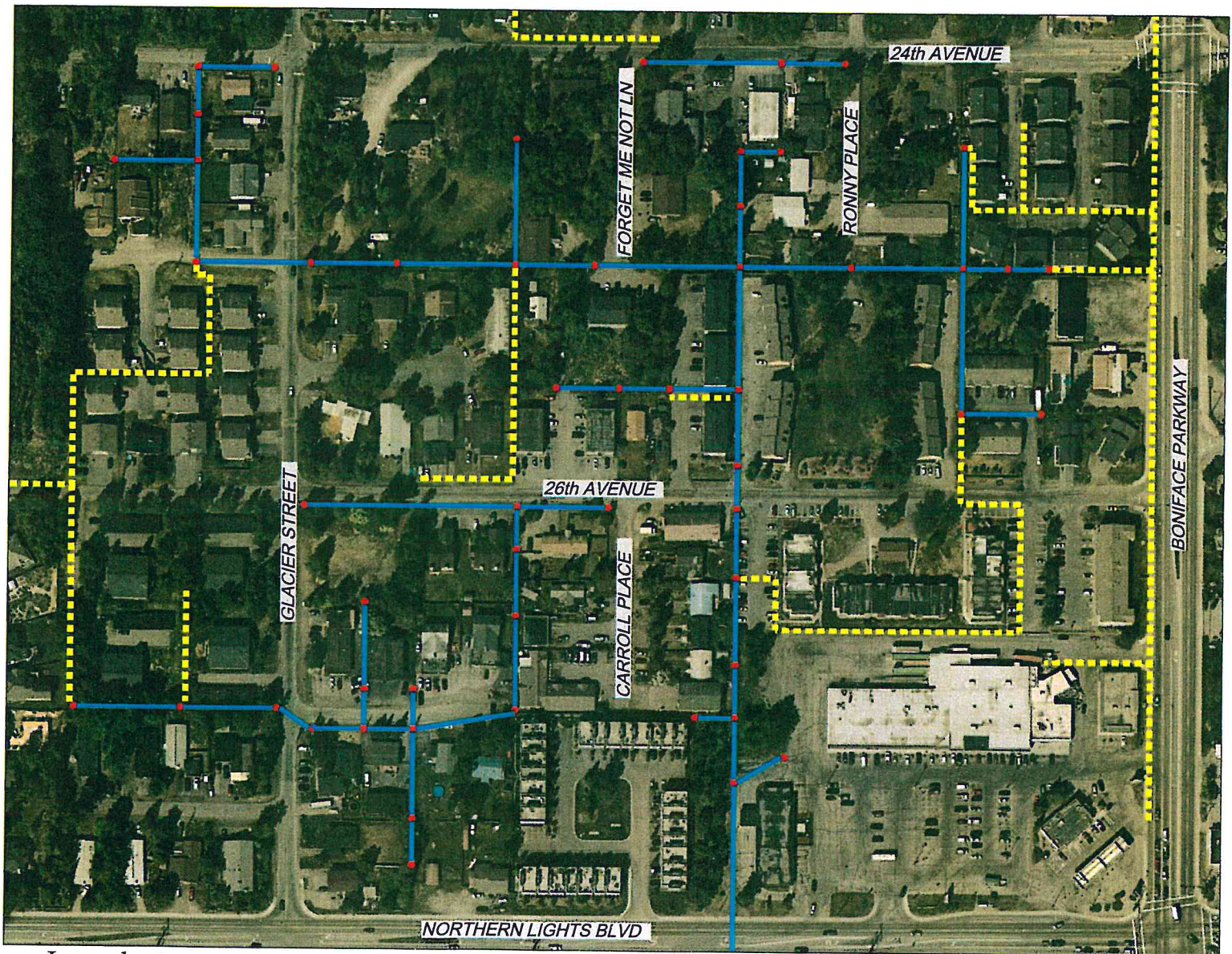
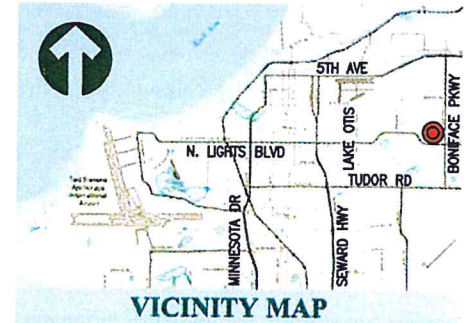
24th Avenue & Glacier Street

Russian Jack Community Council



EXISTING PHOTO

This project will remove overhead electric lines west of Boniface Parkway, south of E. 24th Avenue, north of Northern Lights Boulevard. The new underground lines will connect primary loops for increased reliability. This area has seen a very high number of outages, especially due to high winds and squirrels. Restoring outages have been difficult due to accessibility issues. This project is in the Target Area described in the Title 21 Underground Ordinance because undergrounding these overhead lines will eliminate the power outage risk associated with the high winds. The MOA Planning Department issued a "Three Second Gust Wind Zones" map. This project is inside the highest wind speed in ML&P territory, 120 MPH.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

Grid: 1537

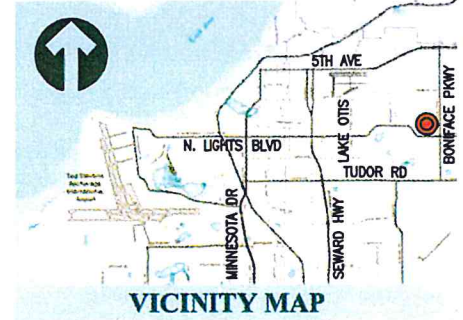
TITLE 21 PROJECT

24th Avenue & Glacier Street
Russian Jack Community Council



EXISTING PHOTO

Photo taken facing east down 26th Avenue.



TITLE 21 PROJECT

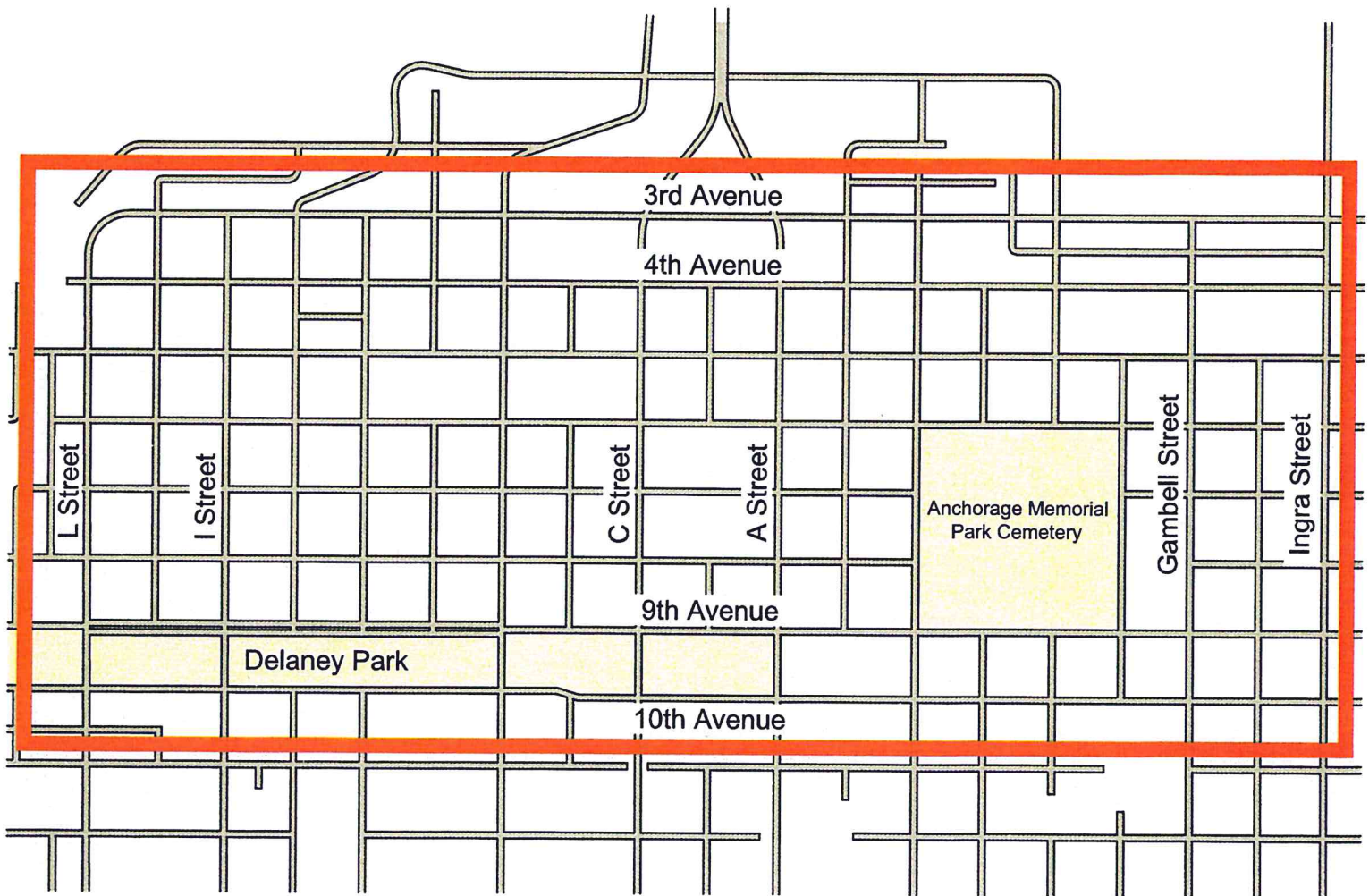
Central Business District

Downtown Community Council



PROJECT DESCRIPTION

This project will underground existing 4kV overhead lines and convert them to 35kV or 12kV underground lines. The 4kV lines are part of an aging system that will be removed from the ML&P system by 2019. This is a ML&P betterment project and will depend on system studies and property owner cooperation as to priority. Most of these lines are found in downtown alleys. This project is in the Target Area described in the Title 21 Underground Ordinance because it is located in the Central Business District.



Legend

- Overhead line to be underground
- Overhead line to remain
- Existing Underground line
- Project location on Vicinity Map
- Power Pole



Not to Scale

Drawing for use by ML&P only.

For additional information contact Jake Moe (ML&P) 263-5407

TITLE 21 PROJECT

Central Business District
Downtown Community Council



EXISTING PHOTO

Photo taken facing north-west at Fairbanks Street at the entrance of the Anchorage Memorial Park Cemetery.

