

**City of Palmer
Action Memorandum No. 15-059**

Subject: Authorize an Extension of the City Wastewater Utility to Serve Mountain Ranch 5 Subdivision

Agenda of: June 9, 2015

Council Action: Authorized

Originator Information:

Originator: Tom Healy, Public Works Director
Date: May 15, 2015 **Requested agenda date:** June 9, 2015

Department Information:

Route to:	Department Director:	Signature:	Date:
_____	Community Development	_____	_____
<u> x </u>	Finance	_____	_____
_____	Public Safety	_____	_____
<u> x </u>	Public Works	<u><i>Tom Healy</i></u>	<u>5/15/14</u>

Approved for presentation by:

	Signature:	Remarks:
City Manager	<u><i>Joseph A. Haanen</i></u>	_____
City Attorney	<u><i>[Signature]</i></u>	_____
City Clerk	<u><i>[Signature]</i></u>	_____

Certification of Funds:

Total amount of funds listed in this legislation: \$ _____

This legislation (√):

Has no fiscal impact Creates a positive impact in the amount of: \$ _____
 Negative impact in the amount of: \$ _____

Funds are (√):

Budgeted Line item(s): _____
 Not budgeted Affected line item(s): _____

General fund assigned balance (after requested budget modification): \$ _____

Enterprise unrestricted net position (after requested budget modification): \$ _____

Director of Finance Signature: *[Signature]*

Attachment(s):

- Holler Engineering letter dated May 7, 2015

Summary statement:

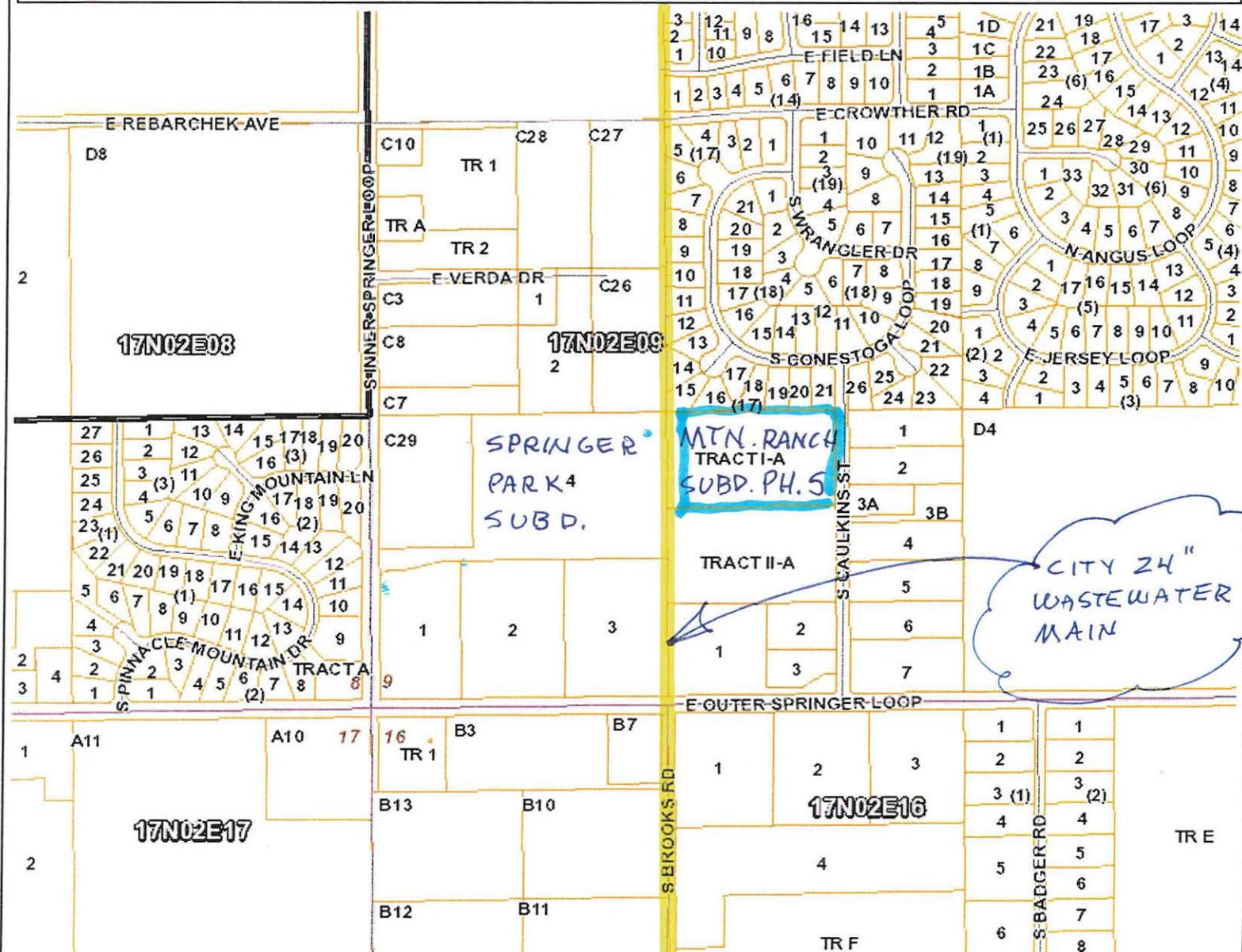
City Code Section 13.08.070 states that "no property located outside the limits of the city shall be served directly or indirectly by the city utility systems unless such connection has been authorized by the city council..."

Approval of this action memorandum will grant City Council approval to the extension of the City wastewater collection system to and throughout Mountain Ranch 5 Subdivision. This 13-lot subdivision intersects with Caulkins Road south of Mountain Ranch 4 Subdivision. The owner and developer is Jess Hall. The developer will construct the wastewater collection system under a utility extension agreement with the City. Large diameter wastewater mains in the area are adequate to handle the additional flows from this subdivision.

Administration recommendation: Approve Action Memorandum No. 15-059.



Matanuska-Susitna Borough



Legend

Public Facilities

- Administrative
- Animal Control
- City Hall or Courthouse
- Community Center
- Landfill or Transfer Station
- Library
- Medical
- Post Office
- Public Safety Fire and/or Police
- Public Safety Law Enforcement
- School

Alaska Railroad

- #### Streets
- Highway
 - Major Street
 - Medium Street
 - Minor Street
 - Primitive Road
 - Private Road

- Mat-Su Borough Bound
- Incorporated Cities
- Parcels
- Flood Zone

1:7,797

0.2 0 0.12 0.2 Miles

NAD_1983_StatePlane_Alaska_4_FIPS_5004_Feet
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Reported on 05/27/2015 09:35 AM

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Notes

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HOLLER ENGINEERING

Water, Wastewater & Soils Consulting

3375 N Sams Dr. Wasilla, Alaska 99654 • 376-0410

May 7, 2015

Tom Healy
Director, Public Works Department
City of Palmer
231 W. Evergreen Ave.
Palmer, AK 99645

Re: *Mountain Ranch 5 Subdivision*; Sewer Main Extension; Plan Drawings for
Review HE Project # 14119

Dear Mr. Healy:

On behalf of project owner Jess Hall, we are submitting plan information and requesting your review of the referenced sewer main extension project. The mains will serve a new, 13-lot residential subdivision. A concurrent submittal will be under review by ADEC Wastewater Discharge Program. ADEC will approve the system for construction contingent on your department's approval and written verification of hydraulic adequacy downstream to the proposed tie-in. Please see the attached drawings for the location and layout of the new improvements.

Main Sewer Lines

Plan and profile plan drawings of the proposed conventional gravity collection system are attached. Standard construction specifications and details from the city specifications are incorporated by reference and are not included with this submittal. Holler Engineering will be on site multiple times during construction to ensure construction meets ADEC/PW standards for materials and installation practices.

Wastewater flows. Using traditional methods to model wastewater flows in larger systems would result in a per-lot flow rate of 0.6 GPM to 1.3 GPM, however the small size of the new collection system would in our opinion warrant a higher peaking factor. We estimate a max peak flow rate of 3 GPM per lot, or 13 homes x 3 GPM/home = 39 GPM. The planned 8" diameter DIP with the total load runs in one section only, with a slope of 0.5%. Using a Manning's roughness coefficient of 0.012 and limiting the flow depth to 4", the section of pipe would have an estimated capacity of 90 GPM and 1.2 ft/second velocity.

Main and service line pipe materials. The new main lines will be constructed of 8" diameter class 50 ductile iron pipe matching city specifications, with a plan gradient of 0.5%. Depth of cover will vary from 10' to 12.5', with extruded polystyrene insulation

placed as necessary to meet city minimum cover standards. Residential service lines will be 4" DIP with minimum cover of 4', more commonly over 6'.

Manholes. Standard concrete manhole bases, sections, cones, frames and covers will be installed in 3 locations as shown on the attached plan.

At this point, we are requesting your written verification that your sewer piping system downstream of the tie-in point can handle the additional hydraulic load, which will need to be forwarded to ADEC staff prior to their approval to construct. Any comments or concerns you have with the plan would also be appreciated. Thank for your assistance, and please feel free to call with any questions or concerns you may have.

Sincerely,



Curtis Holler, PE

c: Jess Hall, w/enclosures

