

2/13/2020

To: Mayor and City Council members  
 Update on three ongoing sewer projects to upgrade and renew our aging infrastructure while relocating it out of the way of the future road widening project.  
 Trent



# Mykawa Lift Stations

**Scope:** Project includes installation of 18” gravity sewer on Hatfield Rd: the replacement and relocation of the Orange-Mykawa Lift Station to the ROW adjacent to Town Ditch to be served with the installation of a 12” gravity sewer line~3,400 LF along Mykawa from Orange to Walnut, and 8” force main from Mykawa west 2500 LF to Hatfield Rd; abandonment Shank Street Lift Station; replacement and relocation of Mykawa-Scott Lift Station, installation of new 8-inch force main for approximately 2,500 LF from Mykawa to SH35, and new 8-12-inch gravity line approximately 3,450 LF along Mykawa from Scott to Shank. Project will be coordinated with Mykawa Road construction.



**Justification:** Orange-Mykawa Lift Station will require a major rehabilitation within the next five years and is poorly located for servicing the area. The project will eliminate an existing inverted siphon in a gravity line and relocate the Orange-Mykawa Lift Station. In addition, the project will eliminate the Shank Street Lift Station and relocate the Scott Street Lift Station presently in conflict with the future Mykawa Road Widening.

**Construction Manager:** Jaime Dino

**Designer:** 5Engineering, LLC

**Contractor:** (Package 1&3)- Nerie Construction, LLC  
 (Package 2) – Black Castle General Contractor

**Budget Info:**

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
W/S Revenue Bonds	2017	795,000		795,000
W/S Revenue Bonds	2018	5,551,620		5,551,620
W/S Revenue Bonds				-
Impact Fee - Debt				-
Other Funding Sources		1,101,300		1,101,300
<b>Total Funding Sources</b>		<b>7,447,920</b>	-	<b>7,447,920</b>

Expenditures	To Date	Future	Total
PER	93,712		93,712
Land	101,026		101,026
Design	554,113		554,113
Construction	6,093,190	700	6,093,890
Construction Management/Inspection			-
Construction Materials Testing	53,000		53,000
FF&E			-

<b>Total Expenditures</b>	<b>6,895,041</b>	<b>700</b>	<b>6,895,741</b>
<b>Project Balance/Contingency</b>			<b>552,179</b>

**Schedule Info:**

	<b>Base Line</b>	<b>Current</b>
<b>Design Start</b>	May-16	May-16
<b>Bid Start</b>	August-17	April-19
<b>Construction Start - Package 1</b>	July-19	August-19
<b>Proposed Construction Completion - Package 1</b>	February-20	December-19
<b>Construction Start - Package 2</b>	July-19	September-19
<b>Proposed Construction Completion - Package 2</b>	September-20	
<b>Construction Start - Package 3</b>	July-19	August-19
<b>Proposed Construction Completion - Package 3</b>	March-20	

(Package 1) Rain Days: 13  
(Package 2) Rain Days: 5  
(Package 3) Rain Days: 2

Please note that this project was repackaged into 3 distinct types of construction projects to encourage bidder participation as noted in the pre-award memo published July 03, 2019. The packages and respective scopes as follow:

- Package 1 - Pipe Bursting: Hatfield Road to Orange Street.
- Package 2 – Lift Stations and Mykawa Road Gravity Sewer. (This package also includes abandoning all gravity sewer mains along with the decommissioning of 3 existing lift stations along Mykawa Road)
- Package 3 – Force mains: Orange Street and Scott Street.

**Highlights:**

**Package 1-** Since the last project update the contractor, Nerie Construction, has completed the following:

- Contractor installed the remaining manhole at the intersection of Woody Street and West Orange Street.
- Site restoration is ongoing.
- Inner lining of existing sanitary sewer manholes has been coated with Sewper Coat.
- Completed CCTV inspection of existing sanitary sewer line along W. Orange Street and Hatfield Road.
- Cast iron frame and covers have been placed on all sewer clean-outs as specified in the City's construction details.

The City's contactor, Nerie Construction, officially submitted their letter of substantial completion dated February 03, 2020 for Package 1, approximately 20 days ahead of schedule. A substantial walk-through inspection has been scheduled for February 12, 2020.

**Package 2 –** Since the last project update the contractor, Black Castle, has completed the following:

- Received wet well risers for both proposed Orange-Mykawa and Scott-Mykawa Lift Stations.
- Implemented dewatering methods around both Lift Station locations due to shallow water tables.

- Constructed and installed the Orange-Mykawa Lift Station and the Scott-Mykawa Lift Station – wet well via Caisson-Method. Once the wet well was set at its permanent elevation, the contractor placed a seal-slab at the foundation to ensure that the inside of the well's surface remains dry and allows form work to take place for the proposed 2' wet well floor for both lift station bottoms.
- Black Castle's boring Sub, Nerie Construction, started boring preparations which consist excavating 2 pits, a sending pit and receiving pit at the intersection of Orange Street and Mykawa Road.

During the contractor's field utility location activities, Enterprise Pipeline representatives suggested that the City adjust the vertical elevation of the proposed 12" sanitary sewer up and allow the Enterprise pipeline to remain under the City's sanitary sewer line. The limits of this change begin from the Orange-Mykawa Lift Station, heading north towards Hickory Slough.

Typically, pipeline companies prefer that any future utilities intersecting their facilities are to be installed below their existing facilities. Implementing this adjustment will now allow the City's sanitary sewer run to be shallower by approximately 9' to 10' depths (initial EL. 21.17' new adjusted EL. 30'-31') on the downstream of the system and will also be a potential cost savings to the City of up to \$90,000.00 while serving the same amount of area. The cooperation between the City and Enterprise Pipeline shows a great partnership and working together to get a reasonable solution.

**Package 3** – Since the last project update the contractor, Nerie Construction, has completed the following:

- Directional bored approximately 5,000 LF of 8" sanitary sewer force main at the following locations:
  - Woody Street to Mykawa Intersection, along W. Orange Street.
  - SH35 to Scott Road (with the exception of the BNSF railroad crossing)
- Completed the proposed 200 LF jack and bore under the Orange-Mykawa Intersection.
- Installed 2- 5-foot air release valve manholes.

During preparation of the proposed bore going under the BNSF Railroad, the railroad representative noted that the material on the approved permit issued by BNSF was different then what was noted on the construction drawings. This omission resulted in the contractor to be shut down until revisions to the permit are resubmitted and approved.

City Staff have made the necessary revisions and resubmitted for re-approval from BNSF Railroad. Once BNSF approves and issues new permit, the contractor will then remobilize and complete the proposed bore under the BNSF Railroad easement. The response is anticipated back by the end of February. Time loss for permit approval will be added back to the construction contract.

## Upcoming Work Items:

### Package 1

Once the substantial walk-through takes place on February 12, 2020, the project will only begin to focus on closing the project and finish up any punch list items noted on the walk-through.

### Package 2

In the upcoming weeks, Black Castle's sub-contractor, Nerie Construction, will continue to bore the proposed 12" sanitary sewer line from the Orange-Mykawa lift station, north towards Hickory Slough.

Black Castle will continue to work on building out the inside of both lift stations which includes the following:

- Complete form work for the 2' thick foundation floor.
- Install the concrete fillets as shown in the construction details.

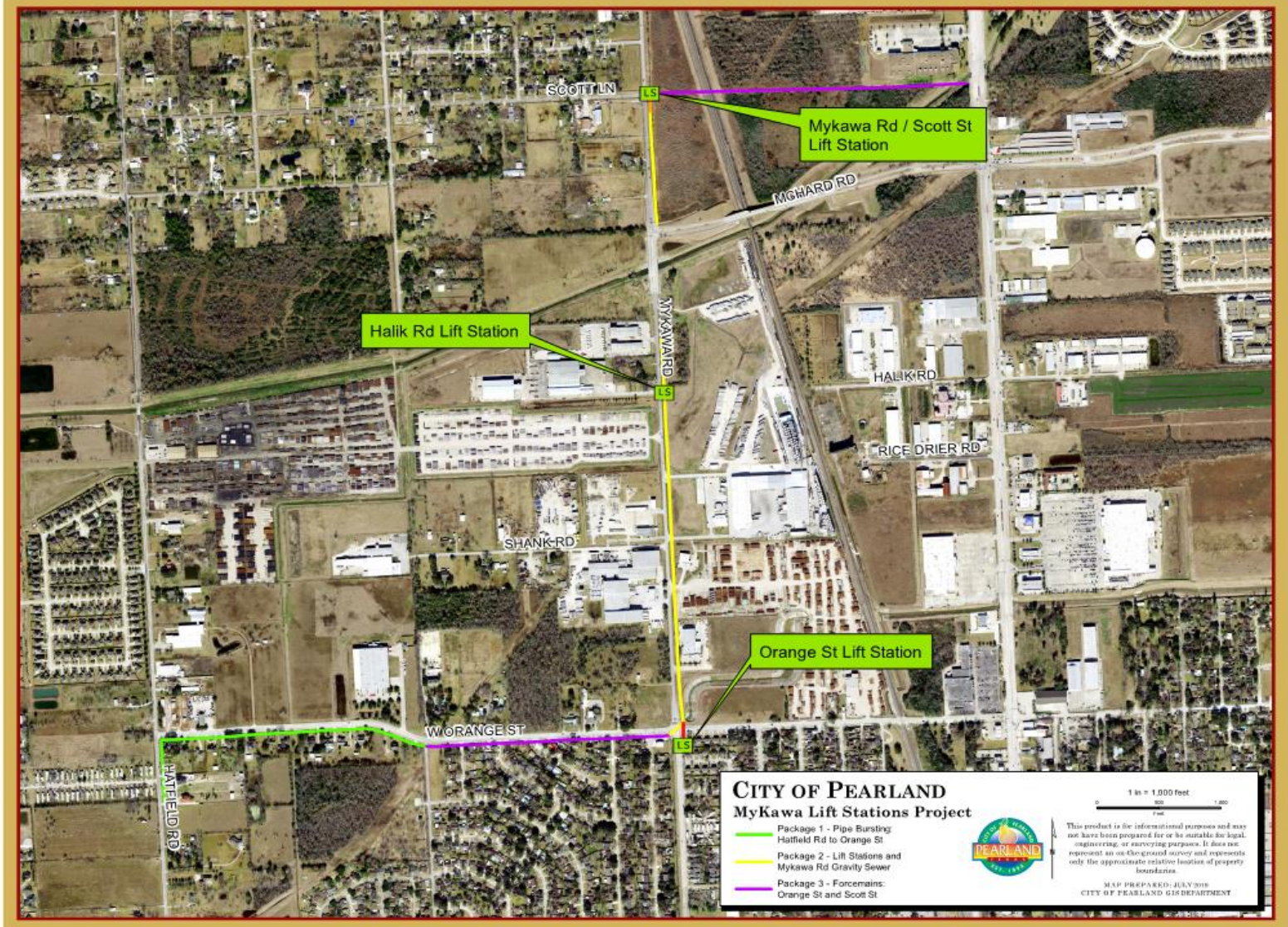
### **Package 3**

Completion of the package 3 construction is dependent on the approval of the BNSF permit. Once the City has received the permit, the contractor will complete the bore under the railroad easement and afterwards will officially submit for substantial completion.

**Previous Memos:** 01/26/17;04/27/16;02/02/17;09/21/17;02/15/18;06/27/19;07/03/19;11/07/19



**Project Location Map:**







Cast iron frame and covers for residential cleanouts.



Site restoration along W. Orange Street.





Residential sewer cleanout installation.



Manhole installation at the corner of Woody Street and W. Orange Street.



Interior lining (Sewper Coat) being applied for extended protection inside of manhole.



Dewatering for the proposed Scott-Mykawa lift station wet well.





Dewatering for the proposed Orange-Mykawa lift station- wet well.



Installation of the Orange-Mykawa lift station wet well.



Installation of the Orange-Mykawa lift station wet well.



Air release manhole installation for force main.





Bore pit set up for upcoming jack and bore activity at the intersection of Orange Street and Mykawa Road.



Open trench installation of 8" sanitary sewer force main.

