



TRANSMITTAL MEMORANDUM

TO: The Honorable Mayor and City Council

FROM: Lacey G. Simpson, Acting City Manager

DATE: January 21, 2022

RE: **Public Works Director's Project Status Report – January 2022**

Attached for City Council review is the project status report of the Public Works Director for the month of January 2022. Should the City Council have questions regarding the Public Works Director's report, staff can respond accordingly.

PUBLIC WORKS DIRECTOR'S REPORT JANUARY 2022

Project:	KETCHIKAN GENERAL HOSPITAL ADDITION & ALTERATION
Project Cost:	\$45,207,269
Completion Date:	2016

PROJECT SUMMARY & BACKGROUND

In October of 2013, Ketchikan voters passed a \$43M Bond Referendum to fund the first phase of the expansion and alteration project. Principal funding will consist of the \$43M in bonds, \$15M from a legislative grant, and \$8M from PeaceHealth. On September 4, 2014, Council action finalized the Phase I Guaranteed Maximum Price of \$45,935,018. NAC Architecture has been issued a contract amendment bringing the total A/E contract to an amount not to exceed \$1,221,616. The DOWL HKM Contract Amendment has been approved for Phase I project management, bringing the contract total to \$1,801,000.

UPDATE

Phase I construction was observed to be substantially complete on June 24, 2016. The contractor continues to work on a short list of lingering items. LDC and the City continue to meet bi-weekly to discuss and work through obstacles to wrapping the work up. Meanwhile, LDC and Marble Construction finished the locker room finishes and temporary door infill (near the ER entrance) on August 17, removing the last outstanding item on the Phase I final Certificate of Occupancy. An issue with an occasional exceedance of the OR relative humidity requirements has been raised by PeaceHealth. The project's mechanical engineer has been tasked with offering HVAC operational suggestions (within the context and cost of the existing professional services agreement). Peace Health has also engaged a mechanical engineer to review the matter at their cost. PeaceHealth's stated goal is to have this resolved for the summer of 2019.

Phase II - T- Phase II-T is substantially complete. The contractor has finished all punch list items. The City is withholding funds to ensure remedy of the final outstanding issues. Vinyl floor replacement is now complete. WJE has completed the design work on the seismic joint between the addition and the old hospital. At this point, the work to repair the joint will occur in this year, possibly as early as spring. The shop drawing submittal process has begun, and an onsite meeting to review Layton's approach has occurred with our architect WJE. The parking garage intumescent repair has been pushed back to late summer/fall according to Dawson.

Project:	KETCHIKAN GENERAL HOSPITAL ORIGINAL BUILDING ROOF REPLACEMENT
Project Cost:	\$ 1,600,000
Completion Date:	June 2022

PROJECT SUMMARY & BACKGROUND

The design and construct a new roof system for the original portion of Ketchikan General Hospital has been eyed for replacement since the recent completion of PeaceHealth's Pharmacy remodel. During this construction the roof was opened up which allowed for a visual inspection and numerous leaks were identified. These were temporarily patched, however this roof is situated over the top of some very expensive equipment that is critical to the operation of the Hospital. In an effort to expedite the construction the City of Ketchikan and PeaceHealth are sharing responsibility for the project with the City of Ketchikan funding the design of the project and PeaceHealth funding construction.

UPDATE

Design for the Re-roof was completed by Welsh Whiteley Architects, LLC in June of 2021. Bids were opened August 13th with one qualified bidder. Council awarded Contract 21-06 to Coogan Construction Company of Juneau in the amount of 2,401,000.00 at the meeting of 9/2/2021. Due to difficulty in materials procurement, construction is not anticipated to begin until spring of 2022. However, prep work for the new roof drains including some asbestos abatement is anticipated to begin under a separate contract this winter. The project was estimated at \$1.6M but that was prior to the design and didn't include construction of new roof drains, asbestos removal for the construction of the roof drains, addition of EPDM repairs to existing troughs between the metal portions of the roof, and rapidly increasing material costs.

Project:	KETCHIKAN GENERAL HOSPITAL SOUTHEAST WINDOW WALL REPLACEMENT
Project Cost:	\$ 400,000
Completion Date:	January 2022

PROJECT SUMMARY & BACKGROUND

Welsh Whiteley Architects was contracted to design a new window and metal siding system for the Southeast façade of the Long Term Care wing of Ketchikan General Hospital due to ongoing leaks of the existing windows. The City of Ketchikan and PeaceHealth are sharing responsibility for the project with The City of Ketchikan funding the design of the project and PeaceHealth funding construction. Similar to the roof project, this approach is an effort to expedite the construction as the leaks have increased very recently.

UPDATE

Design for the Southeast Window Wall was completed by Welsh Whiteley Architects, LLC in June of 2021. The bid was opened on July 23, 2021 with Marble Island, LLC as the only bidder. City Council awarded contract 21-12 Ketchikan General Hospital Southeast Window Wall Replacement to Marble Island, LLC in the amount of \$370,000.00. The Architect has approved all submittals and work will begin on February 14, 2022. The project has an anticipated project completion date in April of 2022.



Project:	WISH DOMESTIC VIOLENCE SHELTER - REMODEL
Project Cost:	\$1,500,000
Completion Date:	July 2021

PROJECT SUMMARY & BACKGROUND

In adopting the 2020 General Government Operating and Capital Budget, the City Council appropriated \$850,000 to be reimbursed through a Community Development Block Grant, and partnered with Women in Safe Homes, whose contribution to the project will be \$650,000, to renovate the former Ketchikan Regional Youth Facility into a shelter for battered spouses and children. Change Order #1 was approved by City Council at the meeting on May 19, 2021 for \$46,157.50 adjusting the project total to \$1,534,157.50. This change order is funded through the project contingency.

UPDATE

The property was conveyed to WISH and they are currently occupying and operating the building as the new Domestic Violence Shelter.

Project:	PARK AVENUE SAFE SHELTER
Project Cost:	\$683,499
Completion Date:	February 2022

PROJECT SUMMARY & BACKGROUND

At the Council meeting on October 21, 2020 City Council funded \$119,000 for the interior remodel of the former KYI building into a new overnight warming shelter for Ketchikan's homeless population. As of December 7 2020, the shelter has been occupied overnight and has been near or at capacity on a regular basis. Construction is complete and the shelter is functioning as intended. The City received a grant from the Alaska Community Foundation Coronavirus Nonprofit Relief Fund in the amount of \$683,499. Because of this grant, the City committed to funding the shelter addition project.

UPDATE

Construction has started at the shelter with framing, insulation and exterior siding work ongoing in the addition. The budget on this is expected to be very tight especially given the increased costs of shipping and building materials. It is likely some in-house effort will be required to make the addition feasible from a cost perspective, and FCHS has been asked to make a concerted effort to fundraise. At the Council meeting of September 2, Council awarded Contract 21-14 to PK builders in the amount of \$621,000.00. The first phase of the construction is wrapping up in the existing building and the addition construction is ongoing. The project is anticipated to wrap up in March of 2022.



Project:	TONGASS AVENUE CROSSWALK IMPROVEMENTS
Project Cost:	\$110,000
Completion Date:	Summer 2021

PROJECT SUMMARY & BACKGROUND

At its meeting of January 18, 2018, City Council approved funding in the amount of \$110,000 to undertake improvements to crosswalk safety along the Tongass Ave corridor. The intersections of Deermount and Stedman, the Ketchikan Medical Center, Tongass and Heckman and Tongass at the Vigor shipyard were identified as priority projects to improve pedestrian safety. ADOT informed that they need more data and monitoring to add a crosswalk at Heckman.

Staff was informed that ADOT has received a Federal Highway Safety Grant for design of safety upgrades at the Deermount intersection. Included in the design are sidewalk bulb-outs, new markings and signage, and enhanced lighting. Construction was expected in 2020 but never materialized. Per City Council's direction, staff is working on a permit submittal to ADOT in order to install a rectangular rapid flashing beacon and remove the existing lighted pedestrian sign. This trial is planned for the Deermount intersection.

Staff became aware of some LED lighting upgrades that have potential to increase conspicuity of pedestrians in crosswalks. Staff moved forward with the LED Lighting upgrades for the Ketchikan Medical Center and Tongass Ave crosswalk as a trial location for this upgrade.

ADOT is still gathering data at the Heckman Street intersection in order to determine if a traffic signal is warranted there.

UPDATE

None.

Project:	NEW AERIAL PHOTOS & TOPO MAPS
Project Cost:	\$240,000
Completion Date:	Summer 2022

PROJECT SUMMARY & BACKGROUND

The aerial orthophotos purchased jointly between the City, KPU, and Ketchikan Gateway Borough in 2008 are out of date. The aerial orthophotos purchased by FEMA in 2014 are also out of date and did not cover some vital facilities and areas, including Ketchikan Lakes, Whitman, Fawn Mountain, and Upper & Lower Silvis Lakes. The aerial maps and topographic maps are used for a variety of in-house purposes and public presentations. The cost of the project will be funded equally between the City and Ketchikan Public Utilities. An RFQ was prepared by Staff and publicly advertised. Numerous proposals were received, and evaluated by a selection committee. The City Council awarded the contract to Lidar America at the April 4, 2019 Council meeting. Prior to contract award, an increased photo resolution was negotiated without increasing the contract cost. This will result in state of the art picture clarity and increase the quality of data that can be obtained from the photo. Staff postponed the data acquisition flight in order to capture the Front, Mill, and Stedman improvements in the photos. Unfortunately, the ADOT project took longer than expected to finish and the weather window to complete the flight passed.

The Coronavirus pandemic delayed the project through 2020 due to Canadian travel restrictions. It is expected that the totality of the delays on this contract could result in additional costs.

UPDATE

The contractor has requested a large change order to the contract; Staff is considering terminating the contract for clause and will work with the City Attorney to that end.

BRIDGES & TRESTLES

Project:	SAYLES/GORGE AND WATER STREET TRESTLE #1 REPLACEMENT
Project Cost:	\$4,800,000
Completion Date:	2021

PROJECT SUMMARY & BACKGROUND

The Public Works Department is working in support of the Alaska Department of Transportation and Public Facilities for design and complete replacement of these two structures. The two projects are included in the Statewide Transportation Improvement Plan. ADOT permitting and design is ongoing. R&M Engineering from Anchorage was awarded the design by ADOT. Streets Division cleaned the underside of the structure to allow R&M to use scanning technology to survey the structure.

Public Works designed and installed an interim abutment to support the structure until the ADOT construction project begins.

Staff met with the ADOT bridge design team to evaluate design criteria and design concept options. For Water St #1 the design concept recommended is a retaining wall and fill section, eliminating the life-cycle costs of bridge ownership. Construction is anticipated to begin in 2022.

For Sayles/Gorge, two bridge design concepts were chosen for further vetting. Eliminating the bridge and constructing a fill section for Sayles Gorge was evaluated and ruled out. ADOT&PF's consultant completed a bridge selection report. The consultant evaluated a fill section along with steel and concrete structure. The steel and concrete structure was recommended.

A most recent proposed STIP amendment #3 by the State of Alaska ADOT&PF proposes pushing construction for both the Sayles/Gorge Viaduct and the Water Street Trestle #1 out one fiscal year, to 2023 and 2022 respectively.

Staff met with ADOT & their design team. Staff reviewed the Bridge Type Selection Report for Sayles-Gorge Bridge and agree with their recommendations. Staff also conducted a Plans-In-Hand review for Water St. #1 and provided comments and feedback to ADOT. The City was required to provide another local share necessary to enter the construction phase of the project in 2022. The required local share has been paid using funds appropriated in the 2022 budget.

UPDATE

None

STREETS DIVISION (Capital Improvement Projects)

Project:	TRANSPORTATION INFRASTRUCTURE (Annual CIP)
Capital Budget:	\$300,000
Completion Date:	2022

PROJECT SUMMARY & BACKGROUND

This budget item replaces the Safer Streets & Sidewalks, Staircase & Boardwalk Repair, Pavement Overlay-Surface Repair, Concrete Road Repair, Bridge Repair, Stormwater Infrastructure, ROW Maintenance, and Wall & Abutment Repair line items of the 2020-2021 budgets

In 2022 a major component (approximately \$100K) of this CIP may be new pavement on Valley Court as mandated by a previous legal settlement agreement.

UPDATE

Similar to 2021, Staff have been prioritizing projects and reviewing requests that have come in through Public Service Requests, as well as routine inspection of the Transportation Infrastructure. With the current budget shortfall we anticipate that more than 90% of the work will be of a **temporary repair** nature that will be self-performed by the Streets Division personnel.

2021 Interim Bituminous Road Repairs –Postponed until spring/summer 2022.

2021 Grant St Stormwater Erosion Repairs –The stormwater and bridge work is complete; road surfacing will be completed in spring/summer of 2022.

Project:	SCHOENBAR CULVERT REHABILITATION
Project Cost:	\$2.65M
Completion Date:	2022

PROJECT SUMMARY & BACKGROUND

This project will rehabilitate and repair an existing 12-foot wide corrugated metal plate arch culvert located in Schoenbar Creek, adjacent to Schoenbar Road. The majority of the culvert is in good shape, but the bottom is rotted which makes it a good candidate for trenchless rehabilitation as opposed to a traditional dig and replace. Mill Creek Management Technologies, a trenchless rehabilitation specialty firm, performed a condition assessment report with recommendations. The report found that the culvert is salvageable and trenchless rehabilitation of the bottom is feasible. During Phase I of the project in 2019, it was discovered that there is a tremendous amount of groundwater flowing around, under and ultimately into the culvert through its rotted bottom. The groundwater was problematic in the 2019 project area; however, the amount of water intrusion in the remaining sections of culvert will make rehabilitation using concrete nearly impossible. An investigation into possible sources for the water intrusion was not fruitful.

Heavy rains during the summer of 2020 accelerated the culverts deterioration and prompted a temporary stabilization project to buy time to determine a long-term solution. This project was designed in-house and completed in January 2021.

In terms of a long-term solution for this pipe, the best solution would be to dig up the metal plate arch and replace it with a precast concrete culvert. However, current economic constraints make this approach difficult to fund to the point it would jeopardize the timing of the project. Unfortunately, we are out of time with this culvert.

Staff has prepared preliminary cost estimates for the long-term solution for this nearly 500-foot long culvert, and the rough order of magnitude is between \$2.5M if the design of a pipe inside the existing pipe is successful, and \$5M if we have to dig it up and replace it. The estimate range is not based on a completed design nor on actual permits, therefore it is offered to convey a sense of the seriousness of the situation, and is not suitable for drawing comparisons to the final estimate after a design is complete.

As an alternative to the dig and replace option, staff has completed an evaluation of 13 long-term rehabilitation options for the culvert and have narrowed the field to a few options that have undergone hydraulic and hydrologic analysis. One of the remaining options had better hydraulic conveyance than the others; as such FEMA permitting, consisting of a flood analysis and associated flood map revisions has been submitted for this rehab option. The Ketchikan Gateway Borough Planning department reviewed the submittal and offered its concurrence.

It should be noted that major inlet configurations changes are required in order for the rehabilitated culvert to have an acceptable hydraulic capacity.

In late 2021 Staff received concurrence from ADF&G on the request for installation of fish baffles to improve fish passage in the culvert, as the culvert conveys a fish bearing stream. An innovative baffle system had been evaluated in trials and tests by staff. This dynamic baffle is flexible in that it stands up in low flows to provide for fish passage and also folds down in high flows to allow for improved hydraulic conveyance (compared to traditional baffles & weirs) during storm conditions. ADF&G reneged from their original acceptance and added requirements for computational fluid dynamic modeling of the baffles and culvert. Staff contracted with the baffle supplier to conduct modeling of these baffles, and submitted the results to ADF&G. Staff has now accomplished the hurdle of obtaining an ADF&G permit for work in the culvert.

UPDATE

Staff continues its discussions with FEMA in providing necessary data for the Conditional Letter of Map Revision (CLOMR) submittal. In December 2021 staff worked with R&M Engineering Ketchikan to provide the necessary documentation back to FEMA for a CLOMR for the changes to Schoenbar Creek. FEMA did not provide a fee assessment until January 2022 despite receiving the additional documentation in early December. FEMA's policy is to not begin the 90-day review period until the fee has been paid. The fee has now been paid, however, the lack of notice from FEMA has delayed the project a month.

Staff also continues to work with the trenchless rehabilitation specialist to review our contract documents and prepare for future bid ready documents once permitting is approved and funding has been acquired.

Staff submitted an amendment to a Temporary Water Use Permit to extend the current permit as well as account for potential increased dewatering necessary for the liner application. The review period for this permit is 60 days.

Staff continues to await information in regards to funding source for the one outstanding permitting requirement of an environmental review. Once the funding agency has been identified the prepared package will be submitted to the responsible party.

WASTEWATER DIVISION (Capital Improvement Projects)

Project:	TONGASS AVE SEWER FORCE MAIN REHAB & GRAVITY SEWER REPLACEMENT PHASE II
Project Cost:	\$8,000,000
Completion Date:	2018

PROJECT SUMMARY & BACKGROUND

Phase II involves rehabilitating the City's remaining 2,700-linear feet of sewer force main and 1,700-linear feet of sewer gravity mains. This section of gravity sewer is known to be a major contributor to the sewer system's inflow and infiltration. On June 15, 2017 the City Council approved this project's nomination for the National Infrastructure Program. At the same meeting, the City Council approved an amendment adding funds to a contract with Steph Engineering to fast track design of this project. The project has been broken into four distinct segments that will each be separate construction projects. These projects are critical in order to reduce the amount of infiltration and inflow coming to the wastewater treatment plant. High peak flows in August and October, during heavy rain events that also corresponded to high tides, resulted in bypassing at pump stations. Based on historical infiltration and inflow studies, it is envisioned that these projects will take a significant step towards muting those peak flows. Value engineering is complete. As such, the project design will incorporate portions of trenchless technology to help mitigate high cost, elevated risk and potential impacts to residents and businesses along the project corridor. Design Status:

-Segment 1 is complete

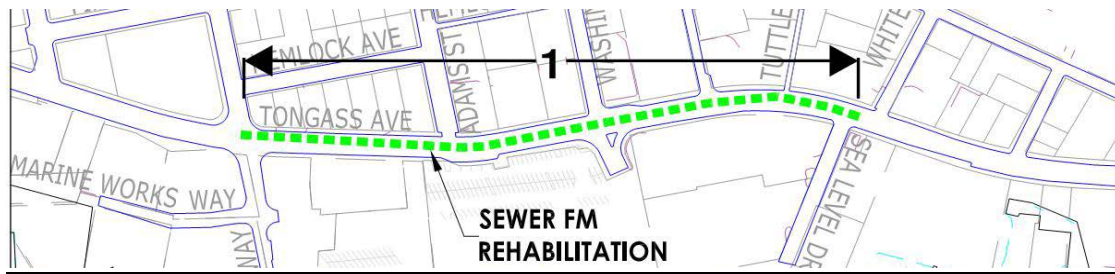
-Segment 2 is 65%

-Segment 3 is 80%

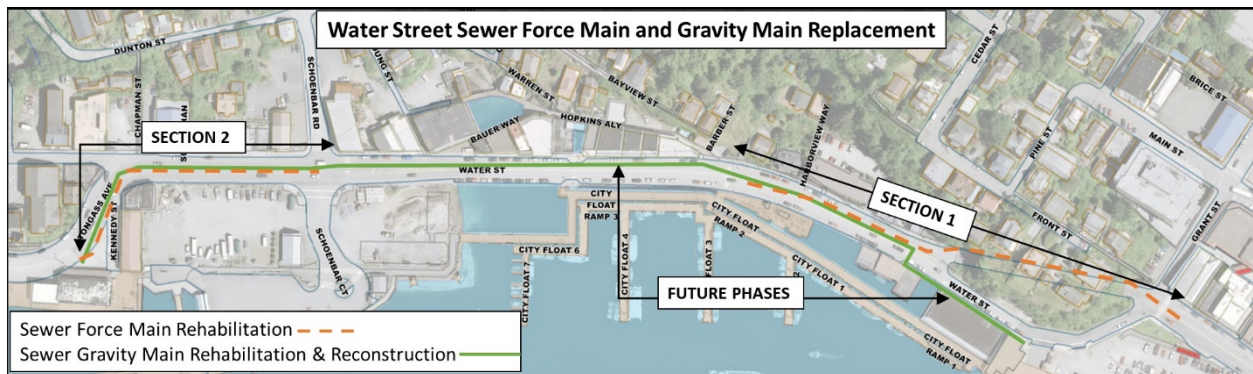
-Segment 4 is 90%

Staff has been in contact with the design firm and review of designs for each phase are ongoing. Staff completed the install of 5 flow monitoring devices along the Water Street Corridor. The installation allowed measurement of infiltration and inflow in the sewer lines along this corridor to occur for a 5 month window of time. Assessment of the data being collected through the flow monitoring study showed that there was identifiable tidal influence in the area surrounding Pump Station 3, just after the Tongass and Water Street viaducts.

Staff submitted a request to Congressman Don Young for potential funding of Segment 1 (Jefferson St to Pump Station 4), and on May 3, it was announced that Don Young has selected the project as part of his Community Project Funding request. This selection does not guarantee funding award but is a step towards that direction.



Tongass Ave Sewer Replacement



Updated Sections of Water Street Sewer Replacement

UPDATE

Staff continues to move the two projects along, with submittal of an Engineering Plan review package to the ADEC this month for both the Tongass Force Main and Water Street Sewer Force Main and Gravity Main Replacement.

Project:	PUMP STATIONS GENERATOR REPLACEMENT
Project Cost:	\$130,000 per year
Completion Date:	March 2023

PROJECT SUMMARY & BACKGROUND

In adopting the 2018 General Government Operating and Capital Budget, the City Council appropriated money to large and small pump station upgrades for replacement of the aged generators and components at each of the seven pump stations. Electrical engineering company Haight & Associates was hired to design a year by year phased set of construction documents that will go out to bid beginning in 2019.

On September 17, the City Council approved a contract to procure the 150kW Generator Set. Staff is moving forward with that purchase and arranging for the installation. The 150KW Cummins/Onan Generator set has been ordered and is expected within the next 6 months.

The gen-set for Pump Station 2 is currently being up-fitted with a municipal water cooling system and should be shipping to Ketchikan this Fall. The gen-set for pump station 6 has been ordered. The lead time for these units has increased due to the pandemic and are currently unpredictable.

UPDATE

The new Generator is still scheduled to ship out to Ketchikan this month after successful run testing.

WASTEWATER DIVISION (Operations)

In addition to the routine work performed on a regular basis, the Wastewater Division performed the following work during the past month:

- Crews were very busy over the last month performing ice and snow control.
- Due to severe winter storms and extreme flows to the pump stations and treatment plant, crews successfully responded to numerous after hour and weekend emergencies to prevent the overflow of wastewater as well as narrowly preventing a bypass situation of wastewater into Tongass Narrows.
- On call Wastewater crews responded to multiple power outages over the last month. No disruption to pumping or treatment resulted from the outages.
- The Wastewater lab, collection and treatment teams continues to effectively meet and surpass our effluent limits through effective communication and teamwork.

STREETS DIVISION (Operations)

In addition to the routine work performed on a regular basis, the Streets Division performed the following work during the past month:

- The Streets Division over the past month has been dealing with an unusually high amount of snow and icy conditions. Crews have been working day and night plowing snow. When the snow stopped falling, crews were tasked with widening roads by removing snow that was impeding traffic. Once snow removal was completed in key areas, crews turned their focus to stairs and sidewalks. While it is actively snowing, we are unable to get crews to stairs and sidewalks, which causes major build-up and icing.

GARAGE DIVISION (Operations)

In addition to the routine work performed on a regular basis, the Garage Division performed the following work during the past month:

- The Garage crew has been busy keeping up with maintenance on the plows and salters during the persistent winter weather in the past month.
- We replaced a radiator and water pump on an ambulance.
- The crew repaired a shifting issue on the large plow truck.
- We have changed out several plow and belly blades due to snow events.
- The crew finished fabricating light holders for the Osh Kosh and installed them.
- We have been rotating KPD vehicles in to be serviced.
- The crew repaired a brake issue on the Streets Vector truck.



Fabricated Tail Light Holders on Osh Kosh Dump Truck

BUILDING MAINTENANCE DIVISION (Operations)

In addition to the routine work performed on a regular basis, the Building Maintenance Division performed the following work during the past month:

- Building Maintenance crew has been busy with snow and ice removal and control at various City buildings during the past month.
- At TFCC, we fixed a urinal, helped with front door closure issues, replaced low water controls for both boilers, and are monitoring the water pressure in the boilers.
- We replaced the controls and restarted the fire place at the Library, and ordered a new soap dispenser.
- FS #1 ran out of heating fuel, so we had a contractor bleed the fuel lines and restarted the electric boiler. The boiler also needed a number of fuses replaced.
- At the Garage, we repaired an electrical issue on the apparatus door. The wall heating unit there has failed, and we are getting quotes for a new motor and the replacement of the entire unit.

- Annual smoke and fire alarm inspections were performed at City Hall, and new batteries have been ordered for the fire panel. We also repaired a fan coil on the 3rd floor, and made improvements to the 4th floor restroom.
- We replaced a fan belt at the Museum, and will be training Museum staff on how to build a new exhibit table at the Building Maintenance shop.
- Besides miscellaneous job orders, we replaced HVAC filters at various City buildings.

BUILDING INSPECTION DEPARTMENT

PERMITS

PERMITS ISSUED	SINCE LAST REPORTING PERIOD	YEAR-TO-DATE
Traffic Control Permits:	1	1
Permits to Excavate:	1	1
Side Sewer Permits:	0	0
Site Development Permits:	0	0
Building Permits:	2	2
UPDATED: 1/20/22		