

**TOWN OF CROMWELL - TOWN COUNCIL
TOWN HALL COUNCIL CHAMBERS
41 WEST STREET, CROMWELL, CT 06416
REGULAR MEETING MINUTES**

Wednesday, March 8, 2023 - 7:00 p.m.

Present: Mayor S. Fortenbach, Deputy Mayor J. Henehan, Councilman
Demetriades, Councilwoman J. Donohue, Councilwoman P. Luna,
Councilman J. Polke, Councilman A. Waters

Also present: Town Manager Salvatore, Finance Director Sharon DeVoe, CMS
Building Committee Chairperson Rosanna Glynn, Chief
LaMontagne, Captain Sifodaskalakis, Public Works Director Spina,
Kari Olson Town Attorney

A. CALL TO ORDER

Mayor Fortenbach called the meeting to order at 7:00 p.m.

RECEIVED FOR RECORD
Mar 17 2023 03:23P
JoAnn Doyle
TOWN CLERK
CROMWELL, CT

B. PLEDGE OF ALLEGIANCE

The Council stood to recite the Pledge of Allegiance.

C. APPROVAL OF AGENDA

MOTION made by J. Donohue and **SECONDED** by J. Henehan to approve the
agenda.

All in favor.

D. LETTER OF COMMENDATION

MOTION made by J. Donohue and **SECONDED** by J. Henehan to table this item.

All in favor.

Q. EXECUTIVE SESSION

MOTION made by J. Donohue and **SECONDED** by J. Henehan to amend the
agenda by moving Item Q. Executive Session to after Item D. Letter of
Commendation and to take up Item Q.2 first and Item Q.1 second.

All in favor.

MOTION made by J. Polke and **SECONDED** by A. Waters to enter into
Executive Session to include Town Manager Salvatore, Finance Director Sharon
DeVoe, Assessor Shawna Baron, and Town Attorney Olson for Item Q2.

All in favor.

MOTION made by J. Henehan and **SECONDED** by J. Polke to invite Chief
LaMontagne, Town Manager Salvatore, Finance Director Sharon DeVoe for Item
Q1.

All in favor.

The Council went into Executive Session at 7:12 p.m.

The Town Council came out of Executive Session at 8:04 p.m.

MOTION made by P. Luna and **SECONDED** by J. Henehan to approve a supplemental appropriation within the Revenue Collectors' Budget in the amount of \$164,000 due to negotiation settlements after mediation and changes to legislation.

All in favor.

E. COMMISSION CHAIRMAN REPORTS/LIAISON REPORT/STAFF REPORTS

1. CMS Building Committee

Chairperson Rosanna Glynn was in attendance to answer any questions of the Town Council regarding her report.

DEI Committee Chairperson Alice Henley Chair reported:

- They have had a couple of changes in team leaders and a change in the Town Liaison.
- They currently have 5 members and meet once per month. They submit their minutes each time they meet.
- They have participated in many events including Trick or Trunk, Library's Dream the Dream, Summerfest, and CCD's Rock Painting Event.
- They are active on social media; they have a website and Facebook page
- The schools are doing an awesome job with diversity.
- They receive reports from LGBTQ and CCD.
- Community Conversations was stalled because of COVID as they really need to be held in person.

F. MAYOR'S UPDATE

Mayor Fortenbach read his report to the Council. See Attachment A.

He added:

- The Saint Patrick's Day Parade Committee nominated Liz Jones as the Town Honoree and Judy Radcliffe as the Town Marshal. He presented proclamations to both.
- He will be participating in the Saint Patrick's Day Parade this weekend.
- The Town had a third-party peer review of the CMS Project. We do not have a final draft yet, but he will get it to the Council as soon as it is complete.

G. TOWN MANAGER'S UPDATE

The Town Manager added the following to his report:

- We received an Arbitration Ruling this week regarding the employee who left the Police Department and requested sick leave payment. The Town won this ruling 3-0. As a result of this ruling, the active claim within IUOE Local #30 containing the same set of circumstances was withdrawn.

H. FINANCIAL/FINANCE DIRECTOR'S UPDATE

1. Budget Report

Finance Director Sharon DeVoe was in attendance to present her report to the Town Council.

2. Amend General Fund Budget total number

The Town Manager explained that the department budgets were approved by the Council individually, however, the totals did not carry to the summary page and as a result the total approved general fund budget number needs to be amended.

MOTION made by P. Luna and **SECONDED** by J. Donohue to amend the motion made on March 1, 2023 to approve the General Fund total by striking \$21,520,088 and inserting \$21,638,570.

All in favor.

3. Discussion and approval of offering a sign on bonus for Police Department

Chief LaMontagne explained that the Police Department is short staffed and they are attempting to attract certified officers to apply for employment. See Attachment B.

MOTION made by J. Demetriades and **SECONDED** by J. Donohue to negotiate an up to \$5,000 lump sum payment with the terms and conditions the Chief of Police and Town Manager can reach an agreement with the union for.

All in favor.

4. Tax Refunds

MOTION made by A. Waters and **SECONDED** by J. Henahan to approve Tax Refunds #1-13.

All in favor.

I. CHIEF OF POLICE'S UPDATE

Chief LaMontagne was in attendance to present her update to the Town Council. She provided the following updates in addition to her report:

- Officer Robert Haughton gave his notice of retirement effective on March 14th. He is a 23-year-old veteran with the Town of Cromwell.
- As a result of being short so many officers, our second SRO has been taken out of the schools to cover for the lack of patrol staff. She explained she does not want to take them out of schools. However, they have to at this time because the Police Department is short staffed and the first priority of the Police Department is to patrol.
- They are in the process of doing a background check on a recruit in the academy expected to graduate on April 4th.
- Detective Tolton is taking on more responsibly at the schools teaching the DARE program.
- On February 20th a suicidal male called. The responding officers spent 90 minutes talking to him, they were successfully able to get the male to agree to get treatment. She commended all officers involved.

- On February 5th officers responded to Saint John's Church for a male in cardiac arrest. Life saving measures were performed by someone at the church until first responders arrived. The person is doing well.

Chief LaMontagne announced her retirement effective at the end of June. It is bittersweet but she is happy. She will be at the golf tournament on June 29th saying goodbye. The Town Council thanked her for her hard work and congratulated her.

The Town Manager said that he hired her in 1990. He saw a lot in her, she came up through the ranks. She will be missed but she will maintain her residency in Town so we will still see her.

Councilman Polke personally thanked Chief LaMontagne and assured her that she would be missed.

Councilman Demetriades thanked her for her years of service and emphasized thinking about ways that we can incentivize salaries and benefits so that applicants choose Cromwell over anywhere else.

J. PUBLIC WORKS DIRECTOR'S UPDATE

Public Works Director Spina was in attendance to present his report to the Town Council. He informed the Council that they received a 6-wheel dump truck at the Highway Department yesterday. The dealer informed him that the next one will be here in 3-4 months. He will keep one for a spare. He added they have been down one all winter and have been borrowing the Sewer Department's truck.

K. CITIZEN COMMENTS *(limited to 2 minutes per speaker, please be respectful)*
None.

L. NEW BUSINESS

1. Discussion and possible action regarding proposed change to Town Code § 54-12. Interruptions in Employment

Mayor Fortenbach explained the proposed change in the Code. The Town Manager explained that this request is not coming from the Pension Board, it is originating through his office. We do have an individual that was affected by this change, which is the reason for the retroactive language back to July 1, 2022. He checked with legal and it is an acceptable request.

MOTION made by J. Demetriades and **SECONDED** by J. Polke to make a motion to make the proposed change to remove the five months.
All in favor.

2. Discussion and possible action regarding request to Waive Bidding Requirement for Sanitary Sewer System Rehabilitation Project

A memorandum was provided to the Town Council. See Attachment C. Public Works Director Spina explained to the Council that Cardinal Engineering is

familiar with the project as they have done the first five phases. Additionally, keeping Cardinal Engineering on the project would be beneficial because there would be learning curve if another company was hired at this phase.

MOTION made by J. Henehan and **SECONDED** by P. Luna to approve the request to waive bidding requirements for the Sanitary Sewer System Rehabilitation Project (Phase VI) in the amount of \$250,000.
All in favor.

M. APPROVAL OF MINUTES

1. February 8, 2023 Special Meeting Minutes

MOTION made by J. Henehan and **SECONDED** by P. Luna to approve the Special Meeting Minutes of February 8, 2023.
All in favor.

2. February 8, 2023 Regular Meeting Minutes

MOTION made by J. Polke and **SECONDED** by J. Henehan to approve the Regular Meeting Minutes of February 8, 2023.
All in favor.

3. February 22, 2023 Special Meeting Minutes

MOTION made by P. Luna and **SECONDED** by J. Henehan to approve the Special Meeting Minutes of February 22, 2023.
All in favor.

N. RESIGNATIONS

1. Matt DiDomizio, CWPCA

MOTION made by A. Waters and **SECONDED** by J. Donohue to accept the resignation of Matt DiDomizio with regret.
All in favor.

O. APPOINTMENTS/REAPPOINTMENTS

Appointments:

1. Board of Assessment Appeals

- a. Ratification of Appointment of Jessica Downes retroactive to 3/11/2022 for a term expiring 11/7/2023.

MOTION made by J. Donohue and **SECONDED** by A. Waters to ratify the appointment of Jessica Downes to the Board of Assessment Appeals retroactive to 3/11/2022 for a term expiring 11/7/2023.
All in favor.

- b. Modification of appointment of Jeffrey Serra from Regular Member to Alternate Member effective 2/8/2023 for a term expiring 11/7/2023.

MOTION made by J. Donohue and **SECONDED** by A. Waters to modify the appointment of Jeffrey Serra from Regular Member to Alternate Member effective 2/8/2023 for a term expiring 11/7/2023.

All in favor.

2. Diversity, Equity, and Inclusion Committee

- a. Beth Falcigno (D), regular member for a term expiring 2/1/2025

MOTION made by A. Waters and **SECONDED** by J. Donohue to appoint Beth Falcigno to the Diversity, Equity, and Inclusion Committee as a regular member for a term expiring 2/1/2025.

All in favor.

Reappointments:

1. Diversity, Equity and Inclusion Committee

- a. Alice Henley (U), regular member for a term expiring 2/2025
- b. Erin Omicioli (D), regular member for a term expiring 2/1/2025
- c. Carol Perry (U), regular member for a term expiring 2/1/2025
- d. Clare Serrantino (D), regular member for a term expiring 2/1/2025
- e. Whitney Simmons (D), regular member for a term expiring 2/1/2025

MOTION made by J. Polke and **SECONDED** by A. Waters to reappoint Alice Henley, Erin Omicioli, Carol Perry, Clare Serrantino, and Whitney Simmons as regular members to the Diversity, Equity, and Inclusion Committee for terms expiring 2/1/2025.

All in favor.

P. INFORMATIONAL ITEMS

- 1. Councilman Demetriades said the CCD Coffeehouse was a great event, it was a full house and it wonderful to be able to use the Belden Room. He said the Mayor acted as the MC for the Coffeehouse and did a great job!
- 2. Councilman Demetriades commended Public Works for doing a great job preparing for and during the snow event.

R. ADJOURN

MOTION made by J. Donohue and **SECONDED** by J. Henehan to adjourn.

All in favor.

The meeting adjourned at 8:43 p.m.

Respectfully submitted,



Amanda Calve
Secretary



Town of Cromwell Office of the Mayor

MAYOR'S REPORT

Date: March 8, 2023
To: Members of the Town Council
From: Steve Fortenbach, Mayor
Subject: Mayor's Report for 3/8/2023 Town Council Meeting

- The Town Council completed its Budget Workshops. Board of Finance will take up their budget workshops on April 4th & 10th to review the town and BOE budgets.
- We continue to work with BerryDunn on completing the Climate/Culture study at town hall. As per Sondra Hathaway's last email to the Town Council she is preparing to present the survey at the April Town Council meeting.
- A kick off meeting was held with CHA who is the consultant on the multi-purpose field project at the high school.
- I was able to attend the Penguin Plunge to support Special Olympics at Crystal Lake in Middletown. It was cold and snowy, but everyone who participated had a great time.
- I emcee'd the Cromwell Creative District's Coffee House. There were more than a dozen participants and everyone did an amazing job.
- Cromwell High School performed "Seussical" this weekend and had 4 sold out shows.
- Cromwell High School Boys basketball won their 2nd straight shoreline conference tournament.
- Cromwell High School Girls basketball is playing their 3rd round state tournament game tonight at Immaculate High School in Danbury.
- Cromwell High School winter Cheerleading took second place in their State Competition.

Salvatore, Anthony

Attachment B

From: Chief Lamontagne
Sent: Thursday, March 02, 2023 3:23 PM
To: Salvatore, Anthony
Cc: Calve, Amanda
Subject: Lateral Hires

In an effort to attract certified officers I propose the following:

A \$5,000 lump sum payment issued upon successful completion of the 12 month probationary period to those certified officers hired within this incentive period.

Denise Lamontagne

Chief of Police
Cromwell Police Department
860-635-2256 x.7843
860-613-2934 fax

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*Approved
Sgt. ASB
Anthony J. Salvatore
3/2/2023*

MEMO

Attachment C

To: Anthony Salvatore, Town Manager

From: Richard Peck, Sewer Administrator *R Peck*

Cc: Sharon DeVoe, Finance Director
Lou Spina, Public Works Director

Date: January 31, 2023

Re: Request to Waive the Bidding Requirements for Cardinal Engineering's Design & Construction Administration Services for the Sanitary Sewer System Rehabilitation Project (Phase VI) in the amount of \$250,000.00.

In Fiscal Years 2022/2023 Budget the CWPCA approved \$1,000,000 in the CNR 260 Sewer Capital Improvement Fund for the Sanitary Sewer System Rehabilitation Project (Phase VI). It entails construction of a relief sewer located at 105 Evergreen Road and heading south 1,700' along the Town's sanitary sewer right of way to Rt. 9 to increase sewer system capacity.

The recent estimate of \$1,300,000 was provided by Cardinal Engineering Associates (CEA) in the Northern Industrial Tier (NIT) Sanitary Sewer Study Update. The Study encompassed the Shunpike Pump Station and the area sewers including the Evergreen Road sanitary sewer right of way to the Shunpike Meter 4. (See attached NIT Study Update)

The proposed Sanitary Sewer System Rehabilitation Project is the next subsequent phase based upon Cardinal's NIT Update Study that includes the improvement/upgrade of sewer pipelines.

Cardinal Engineering Assoc. was originally selected through the Quality Based Selection (QBS) process for several previous Town sewer construction projects. The proposed Rehabilitation Project is considered a multi-phase project, as it is directly linked to Cardinal's Updated NIT Study, where they prepared a conceptual strategy and a cost estimate for the replacement of trunk sewers between Evergreen Road and (Route 9) to Shunpike Road.

I am recommending that the Town continues with Cardinal Engineering Associates Professional Services for the following reasons:

1. Cardinal will greatly reduce the cost of completing the required design of the rehabilitation work, as they have completed the NIT Study Update, providing the improvement/upgrade size of the sewer pipelines for the proposed Rehabilitation Project.
2. We are currently in contract with Cardinal for the Sewer Rehabilitation Project Phase V. The Bid Packet includes similar General Requirements, Technical Specifications and Bid Documents that can be modified to meet this projects prerequisite.
3. Cardinal is ready to assist the Town in the Planning/Design Work (plan's, specs, bidding, contract awarding, and construction inspection) for this next phase.

4. The final construction cost of the previous rehabilitation projects was well within the original budgets.
5. I am certain the Town can save considerable efforts and funds with Cardinals familiarity with this next project.
6. Sewer Rehabilitation Phase VI is a time sensitive construction project. With new developments potentially coming to the NIT (Shunpike) area, and the need to eliminate any future backups in the Town's sewer system, the Shunpike area sewers need improvements to accommodate more flows. The last thing the Town needs is to reject a NIT development based on the limited pipe capacity to accommodate sewage flows.

*Therefore, I am requesting to waive the bidding requirements and approve Cardinal Engineering Professional Services for the Design & Construction Administration Services for the Rehabilitation Project (Phase VI) in the amount of \$250,000.00. .

This will be the final request for a bid waiver of these successive sewer phases.
If the Town approves to take this course of action, the CWPCA can approve Cardinal Engineering's Agreement for Professional Services.

**NORTHERN INDUSTRIAL TIER
SANITARY SEWER STUDY UPDATE**

CROMWELL, CT.

October, 2022

Prepared For:

TOWN OF CROMWELL, CONNECTICUT

Prepared By:

**CARDINAL ENGINEERING ASSOCIATES
180 RESEARCH PARKWAY
MERIDEN, CONNECTICUT 06451**

**CARDINAL
ENGINEERING ASSOCIATES**

I. INTRODUCTION

Cardinal Engineering Associates was retained by the Town of Cromwell in 2008 to evaluate the ability of the existing Shunpike Road (Meter Basin 4) sanitary sewer system to convey the increased sewage flow that would be generated by the development of the western portion of the Northern Industrial Tier (NIT). The NIT consists of an 82 acre area located westerly of Shunpike Road and bounded by Rocky Hill to the north, CT Route 9 to the west and Coles Road to the south (NIT West) and an additional 250 Acre area located between Shunpike Road and Main Street which is zoned BP Business Park (NIT East).

In September, 2021 as a result of the intense rainfall caused by Hurricane Ida, sanitary sewer backups occurred on Evergreen Road and Blackhaw Drive. In order to alleviate the flooding in this area the Cromwell Sewer Department plans to replace the portion of the trunk sewer downstream of Evergreen Road between Evergreen Road and Route 9. The Town has retained Cardinal to update the 2008 study to reflect development that has occurred within the Meter 4 Sewer-shed since 2008. This update will include the following tasks:

- Review zoning regulations and land use to determine changes since 2008 to estimate current sanitary sewage flow and land area available for future development.
- Review of flow data to determine present flows to the Shunpike Road Pump Station and the downstream trunk sewer.
- Build out analysis of the Meter 4 service area to estimate future sanitary sewer flows. Identify the improvements to the trunk sewer that would be required to accommodate full development.
- Recommendations for short-term improvements to the trunk sewer in the Evergreen Road ROW to alleviate surcharging of the trunk sewer caused by present wet weather flow conditions.

II. METER BASIN 4 SANITARY SEWER SYSTEM

The Meter 4 service area is comprised of approximately 1,400 acres, approximately 900 acres of which is zoned residential and the balance zoned for industrial or commercial use.

Sanitary service for the northern portion of the Meter 4 service area is provided by the Shunpike Road Pump Station. The Pump station service area comprises 800 acres, approximately 500 acres of which, including the NIT, is zoned for industrial and commercial use and the remainder zoned for residential use. Since 2008, there has been very little development within the meter basin. Approximately 65 acres of the NIT West has been developed with the construction of the Amazon Distribution Center, the Public works Garage, and several office building on Commerce Drive and County Line Road. There are approximately 20 acres of land zoned industrial within the NIT West which has not been developed. The NIT East is comprised of 250 acres zoned BP – Business Park. In addition to the Northern Industrial Tier, there are approximately 52 acres of land zoned A-25 within the pumping station service area that are not developed. Downstream of the pump station service area there are approximately 15 acres of undeveloped land zoned A-25 and 47 acres zoned BP Business Park or LB.

The service area consists of 81,000 linear feet of sanitary sewers and trunk sewers that conveys flow to the Mattabassett Trunk sewer. Flow from the Shunpike Road pump station service area is conveyed via an 8" force main located in Shunpike Road which discharges into the Shunpike Road trunk sewer north of Sanford Lane. The trunk sewer continues southward in Shunpike Road to Evergreen Road and then proceeds cross country within the Evergreen Road Right of Way below Route 9 to West Street and then to its terminus at the Mattabassett Trunk Sewer (Meter 4) located in the vicinity of the Mc Donald's restaurant. (Refer to Figure 1). In this figure, the existing sewers are green, the Shunpike trunk sewer is dark blue and the existing Shunpike Road force main is dashed green. The undeveloped land within Meter Basin 4 is shaded red.

The original facility plan prepared by Cahn Engineers in the 1960s proposed to convey flow from the north central portion of Town, including the Northern Industrial Tier, along Coles Brook to the Mattabassett trunk sewer at Route 372 via the Coles Road interceptor. The Facility Plan update prepared by Fuss and O'Neil in 1998 investigated several alternatives for providing for future development within the pump station service area. These alternatives included extension of the Coles Road interceptor to Shunpike Road by gravity or a combination of gravity and pumping or by pumping to the Willowbrook sewer system.

The Shunpike Road Pump Station was designed in 1983 as a temporary facility to allow limited development to occur until the Coles Road interceptor was completed. The capacity of the existing pump station is limited because it was designed to match the reserve capacity of the Shunpike Road trunk sewer which was in place at that time. Therefore, future development within Meter Basin 4 is limited by the capacity of the pump station and the existing force main and trunk sewer. At this time the Town plans to accommodate future development within the Meter 4 service area including the Northern Industrial Tier by modifying or replacing the pump station and force main and upgrading the trunk sewer as necessary to accommodate sanitary flows generated by full development within the service area. It is recommended that the WPCA perform a study to determine whether the extension of the Coles Road interceptor to Shunpike Road is a feasible and cost-effective alternative. This option would have the advantage of providing sanitary service for unsewered areas between North Road Extension and Route 9.

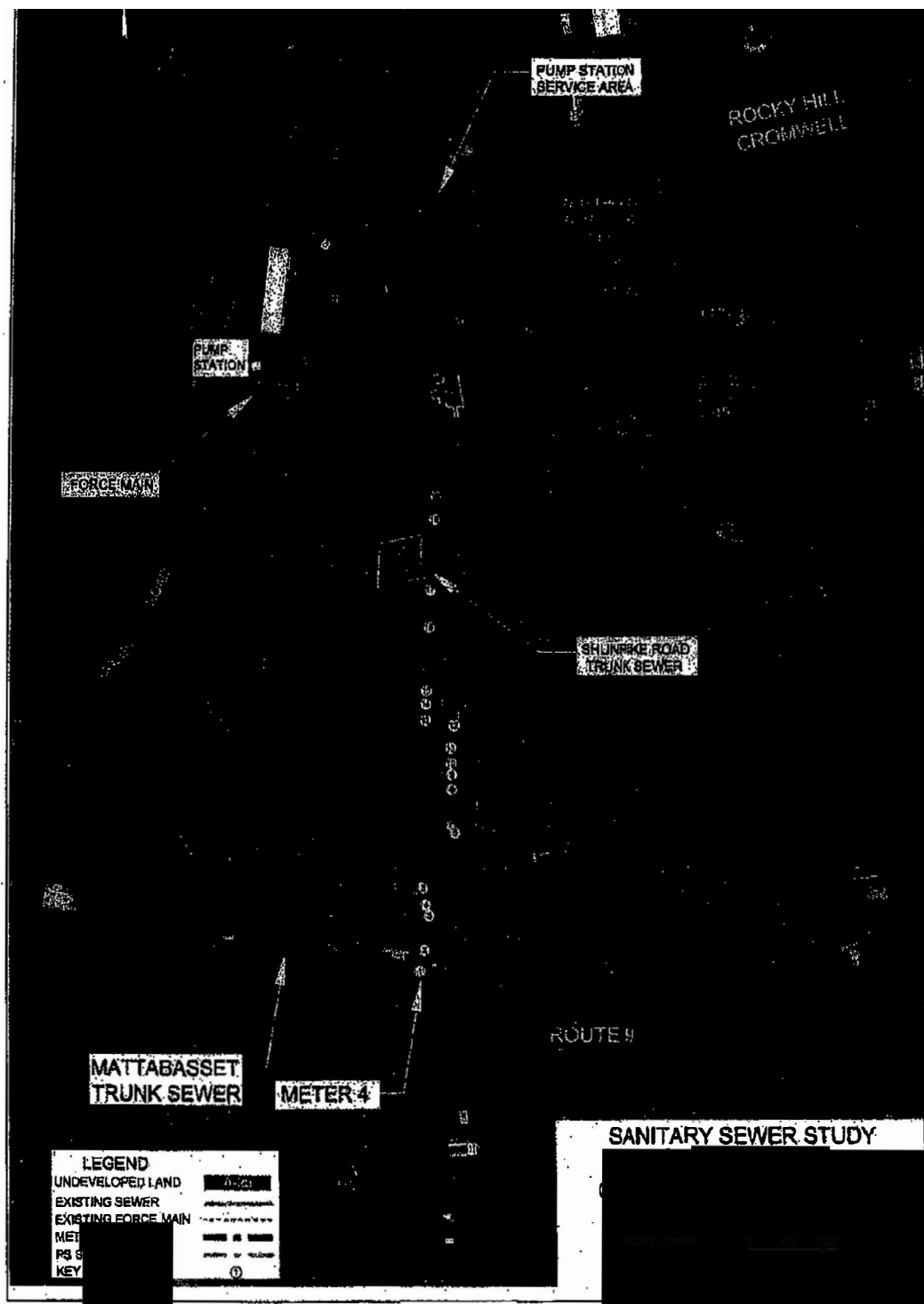


Figure 1

III. SUMMARY OF WASTEWATER FLOWS

The following is a summary of present and future sanitary sewer flows.

A. Present Conditions

1. Shunpike Road Pumping Station

The Shunpike Road Pump Station pumps were replaced in 2012. Based on flow measurements taken by the Sewer Department the new pumps operate at 600 gallons per minute. For 2022, total daily flows are available for the period between April 1 and July 31. Total daily flows discharged from the pump station ranged between 84,000 gallons per day (gpd) in April to a low of 48,000 gpd. in July.

During Hurricane IDA in early September, 2021, flows measured at Manhole 4-263 at the inlet to the pump station increased from 50,000 gpd. to 458,000 gpd as shown in Figure 2 below. Total rainfall during this period was 6.40 inches. It was reported by the Sewer Department that the pumps operated continuously for long periods of time during this storm as well as during the July 9, 2021 storm. This demonstrates that Inflow within the Pump Station Service Area continues to be a major problem.

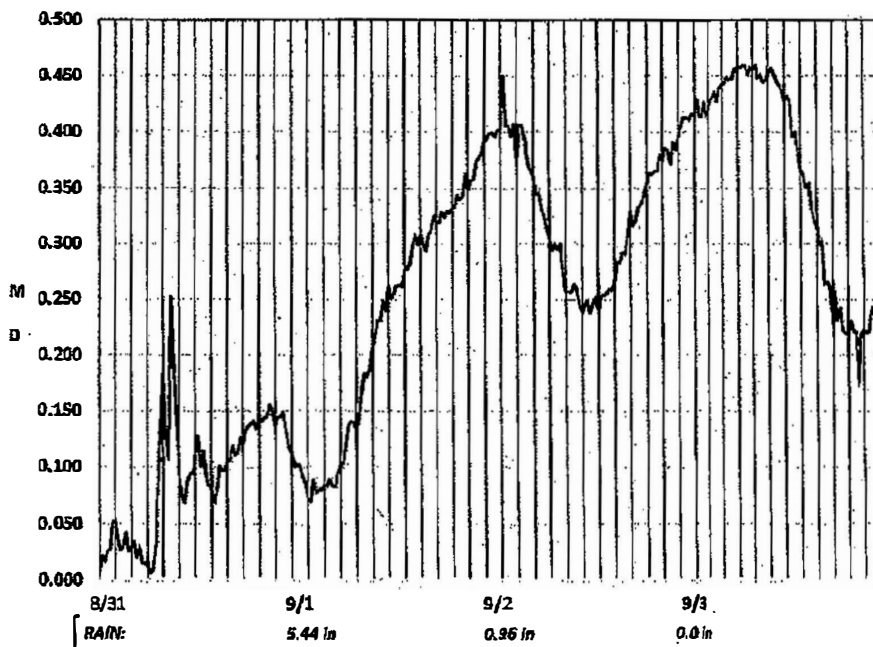


Figure 2
Flow at Meter 4-263 (at Pump Station)
9/1/21 to 9/3/21

2. Shunpike Meter Station No. 4 Flows

Flow measurements at Meter Station No. 4 includes flows from the Shunpike Road Pump Station collection area and approximately 1,000 acres downstream of the pump station. There has been very little change in wastewater flow since 2008. Yearly total flow in 2007 was 83.9 mg or 230,000 gallons per day (gpd). Total annual flow measured at Meter #4 for the years 2017 to 2021 averaged 79.6 million gallons. Daily flows averaged 218,000 gallons per day in 2021 (Figure 3). During the months of July and September, due to the two storms mentioned above, the 2021 total daily flow reached 500,000 and 400,000 gpd respectively. The figure below is a plot of average daily flow for 2021. During July 9, 2021 the peak flow was approximately 1,300,000 gallons per day (Figure 4).

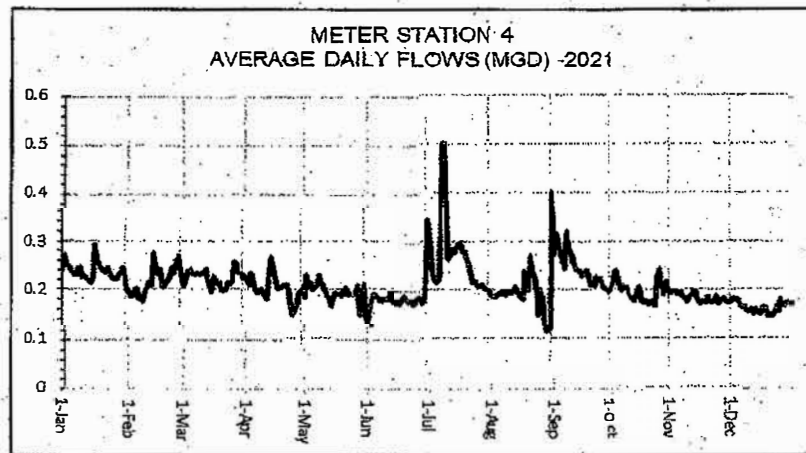


Figure 3 Meter 4 Average Daily Flow - 2021 (MGD)

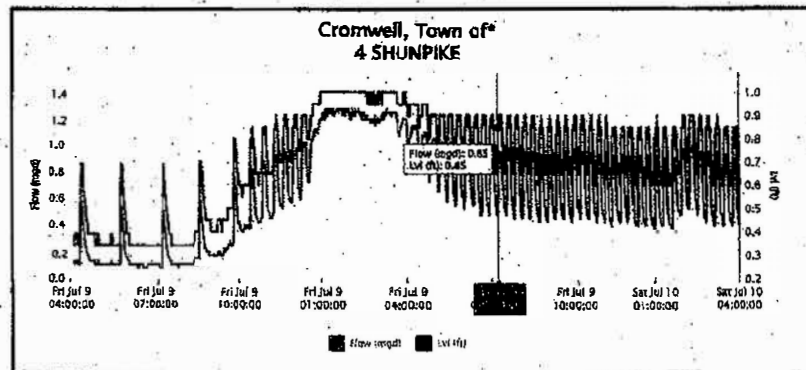


Figure 4 Meter 4 Flow July 9-10, 2021 (MGD)

Flows in 2022 at Meter 4 have averaged approximately 200,000 gallons per day with maximum daily flows up to 500,000 gallons per day during wet weather. On February 4, 2022 peak flow increased to 1.15 mgd during a 1.5" rain event demonstrating that inflow continues to be present in the meter basin. (Figures 5 and 6)

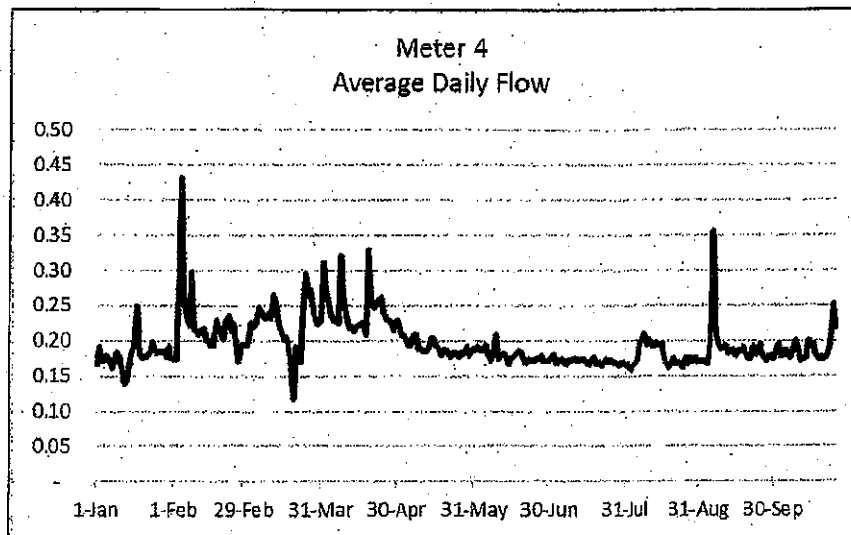


Figure 5 Meter 4 Average Daily Flow (MGD) - 2022

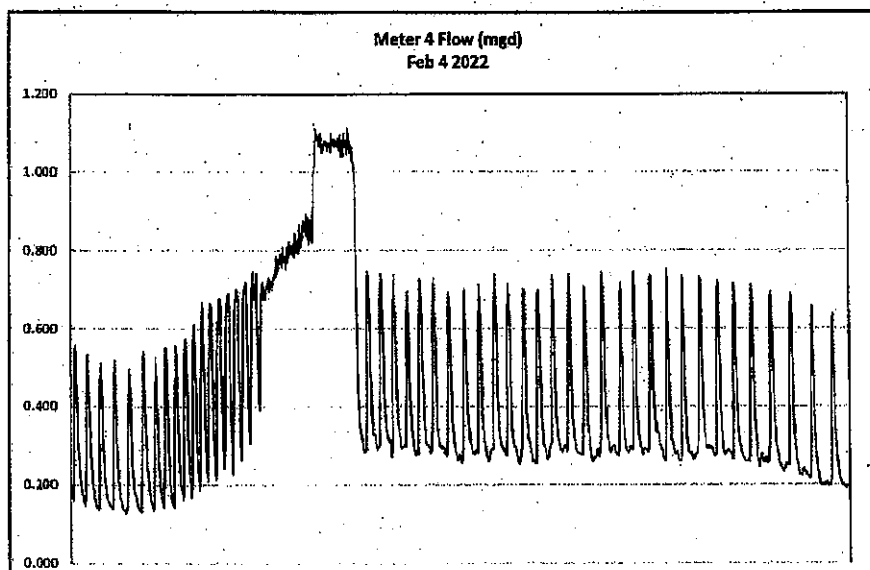


Figure 6 Meter 4 Flow February 4, 2022 (MGD)

IV. WASTEWATER FLOW PROJECTIONS

1. Water Consumption Data

Town-wide water consumption records for the year 2007 were obtained from the Cromwell Fire District. Data was reviewed and, based on the number of customers, an average daily water use was developed for residential and business users. Average daily flow was estimated to be 198 gallons per day per dwelling unit in residential areas.

Residential

Total Annual Usage	228.4 mg
Average daily	0.626 mgd
Number of dwelling units	2686 each
Average daily/unit	233 gpd/unit
Sewage flow @ 85%	198 gpd/unit

Business

Total Annual	90.2 mg
Average daily	0.247 mgd
Number of units	265 each
Average daily/unit	932 gpd/unit
Sewage flow @ 85%	792 gpd/unit

2. Estimated Unit Sewage Flows

The NIT East is zoned BP - Planned Business Park. The purpose of this zone is to provide areas primarily for general office and business park development. The ultimate development and sewage flow generated from this area could vary widely. Town of Cromwell zoning regulations allow the construction of buildings with a maximum height of 60 feet (5 story buildings) and a maximum building coverage of 50%. A survey of land use along Shunpike Road in Rocky Hill found that most industrial development in this area was single-story office buildings. After discussions with Town staff it was determined that future development within the NIT would be similar. Therefore, for this study we have assumed a similar future land use for future development in Cromwell's Northern Industrial Tier. We have assumed one story office buildings covering 50% of the area.

In addition to the Northern Industrial Tier, there is approximately 52 acres of undeveloped land zoned A-25 in the pumping station service area. Downstream of the pump station service area there are approximately 15 acres of undeveloped land zoned A-25 and 38 acres zoned BP Business Park. Unit flows from residential areas were based on zoning density and an average daily flow of 198 gpd/dwelling unit based on water consumption data. The following are unit flows per acre for each zone within Meter Basin 4:

Zone BP – Business Industrial Park

Max building coverage 50%, 60' Max. Building Height

Assume One floor Office Buildings, 50% coverage

Average daily flow - 20 gpd and 250 sf. per employee

Average Daily Flow (ADF) = $40,000 \times 50\% \times 20 / 250 = 1,600$ gpd/acre-floor

Zone I - Industrial

One story office - max building coverage 50%

Average daily flow - 20 gpd and 250-sf. per employee

ADF = $40,000 \times 50\% \times 20/250 = 1,600$ gpd/acre-floor

Zone IP - Industrial Park

One story office - max building coverage 25%

Average daily flow 20 gpd and 250 sf per employee

ADF = $40,000 \times 25\%/250 = 400$ gpd/acre

Zone A25 - Residential

$40,000/25,000 = 1.6$ du/acre

Average daily flow = 198 gal/du = 320 gpd/acre

Peak factor = 5

Peak flow = $320 \times 5 = 1,600$ gpd/acre

Zone A15 - Residential

$40,000/15,000 = 2.6$ du/acre

Average daily flow = 198 gal/du = 520 gpd/acre

Peak factor = 5

Peak flow = $520 \times 5 = 2,600$ gal/day/acre

3. Present Wastewater Flow Estimate

The Meter 4 Sewer-shed is made up predominately of residential areas. Present wastewater flows within the Meter Station 4 Sewer-shed were estimated based on flow data from the Shunpike Road Pump Station and an estimate of flows to each subarea downstream of the pump station based on current land use and estimated population. Flow estimates were based on a field survey of existing structures to determine the number of dwelling units within each subarea and the unit flows derived above from water consumption data. Commercial sewage flow was based on water consumption data.

Since 2008, there has been very little development or change in land use within the Pump Station service area. The NIT West has been partially developed with the addition of the Amazon warehouse, the Public Works garage and several small office buildings. There has been no development within the NIT East and no new residential development within the service area. Therefore, sanitary sewage flow to the pump station has not changed significantly since 2008.

Based on Pump Station flow data for the period between April 11, 2022 and July 31, 2022 the average daily flow from the pump station varied from 81,000 gpd in April to 42,000 gpd in July. The Cromwell Sewer Department has observed that during wet weather conditions, the pump station has operated continuously for long periods of time at a discharge rate of approximately 600 gpm. or 864,000 gpd. Inflow continues to be a major component of the sewage flow within the pump station service area. For this study, it has been assumed

that the inflow within the pump station service area constitutes most of the 600 gpm flow measured during storms. Based on the peak flow at Meter 4 during the July, 2021 storm it was estimated that peak Inflow entering the sanitary sewer system downstream of the pump station service area is approximately 400,000 gpd. These assumed peaks rates have been included in the following post development wastewater flow estimates. Long term flow monitoring at the pump station and key manholes within the trunk sewer is needed to verify the inflow rate.

4. Post Development Wastewater Flow Estimates

The build out analysis will be based on the current Town of Cromwell Zoning Map and regulations. It has also been assumed that there will be no change in zoning, land use or business type for residential or commercial parcels that are currently in use. Therefore, no increase in sewage flow from these areas has been included in this estimate.

For the NIT East and remaining undeveloped land zoned industrial within the NIT West, it has been assumed that the entire area will be developed as a business park, consisting of 1 story office buildings with buildings occupying 50% of the total land area as allowed by zoning. The following are estimates of future flows after full development.

A. Estimate of Future Sanitary Sewage flow at Shunpike Pump Station Full Development

<u>Future Flow Estimate - Full Development</u>	ADF (mgd)	Peak Factor	Peak (mgd)	Peak (gpm)
<u>Dry Weather Flow</u>				
Present Flow Estimate (From flow metering)	0.05	5.0	0.250	174
<u>Future Additional Flow</u>				
Residential (52 Acres A25)	0.0250			
NIT West (23 Acres Ind)	0.0246			
NIT East (250 Acres BP)	0.4056			
Total Future - Dry Weather	0.5052	4.0	2.01	1,400
<u>Wet Weather Flow</u>				
Estimated Present Peak I&I @ Pump Station 2021 - 600 gpm	-	-	0.814	
Wet Weather Peak Flow Estimate	-	-	2.824	1,965

B. Estimate of Future Sanitary Sewage flow in Trunk Sewer Full Development

Future Flow Estimate - Full Development	Present ADF Increment	Additional Future Flow at MH	Total ADF	Peak Factor*	Peak DWF	Estimated I & I Into MH	Peak Wet Weather Flow	
<u>Key Manhole (MH)</u>	mgd	mgd	mgd		mgd	mgd	mgd	cfs
MH 19 @ Sanford Ln. (Peak pump rate - 2000 gpm)	0.864	2.016	2.880	**	2.88	**	2.88	4.46
MH 17 @ Horse Hill Run (8 Acres A-25)	0.01	0.0038	0.014	5	2.949	0.06	3.009	4.66
MH 15 @ Woodland Heights	0.056	0	0.070	5	3.298	0.06	3.418	5.29
MH 12 (Evergreen Rd.) (7 Acres A-25)	0.0454	0.0022	0.048	5	3.536	0.306	3.962	6.13
MH 6 @ Rte 9 (30 Acres - BP, 7.5 Acres LB)	0	0.029	0.029	5	3.681	0	4.107	6.35
MH 2 Residential (Assume no change)	0.0494		0.049	5	3.928	0	4.354	6.74
MH 2 Commercial (Assume no change)	0.094		0.094	5	4.398	0	4.824	7.46
* ASCE MOP 9 Fig 4								
** Included in pump flow rate								

V. SUMMARY of PRESENT and FUTURE CONDITIONS

The following is a summary of present conditions and future conditions after full development within the Meter 4 Basin assuming that the NIT East and West are fully developed as a 1 story office complex with 50% land coverage.

Shunpike Road Pump Station

The present pumps are 4" HOMA Model AMX444-280/29P/C duplex submersible pumps which were installed in 2012. The force main is 8" PVC. Station piping is 6" diameter ductile iron. The capacity of these pumps is approximately 600 gallons per minute (gpm.).

Based on our sanitary sewer flow estimates, the present pump station, with a capacity of 600 gpm, and the 8" force main is adequate to handle present dry weather flow conditions. However, any reserve capacity is needed to convey wet weather flows. Based on Cromwell Sewer Department records, the pump station, with one pump operating at 600 gpm. has been able to handle major storm events including the July and September, 2021 storms. However, during these major storm events it has been necessary for one pump to operate continuously for long periods of time.

Therefore, any significant increase in peak sewage flow generated by new developments may require modifications or replacement of the pumps and/or wet-well. The existing pump station wet well has some limited reserve storage capacity which could accommodate a limited amount of additional sewage flow from future development. Additional flow could also be accommodated by enlarging the wet well or by providing storage at new development sites. Discharge from new developments should be limited until any necessary improvements to the pump station and downstream trunk sewer are completed or inflow is significantly reduced or eliminated.

As development proceeds within the pump station service area, the existing pumps and the force main may need to be replaced depending on the type of development that occurs even if inflow is eliminated. Based on the above assumptions for future development within the NIT East and West as an office park, the peak wet weather flow to the Shunpike Pumping Station could be approximately 3.0 mgd (2000 gpm) or more after full development. Replacement of the pump station and force main would be necessary to accommodate that flow rate. A preliminary estimate of the cost for this work is \$ 3,000,000.

Trunk Sewer – Shunpike Road and Evergreen Road

The Shunpike Road Pump Station discharges to the existing gravity trunk sewer on Shunpike Road in the vicinity of Sanford Lane. This section of the trunk sewer varies in size from 8" to 10" diameter.

The existing sanitary sewers within Shunpike Road are adequate for the estimated present dry weather sanitary sewer flows. However, the 8" sewer is surcharged when the pump station operates constantly at 600 gpm. as has been the case during major storms. Sewer backups have occurred at two houses in this area while both pumps were operating. The Town has advised property owners to install check valves at these locations.

Since the capacity of this sewer is very limited, a significant increase in flow may cause sewer backups. The 8" and 10" sewers in Shunpike Road and Evergreen Road would need to be replaced with a 15" sewer to accommodate the projected sewage flows after full development. A preliminary estimate of the cost for this work is \$ 4,000,000.

Trunk Sewer in Right of Way - Evergreen Road to Route 9

This portion of the trunk sewer consists of 800 linear feet (lf) of 8 in. and 900 linear feet of 10 in. vitrified clay pipe. The minimum full pipe capacity of the 8 in. sewers is 1.8 cubic feet per second (cfs). During the storm on July 2, 2021 which generated 4.5 in of rainfall, a peak flow of 1.4 mgd (2.1cfs) was recorded at Meter 4 at the Mattabassett Trunk Sewer downstream of the ROW. During Hurricane IDA in September, 2021 the 8" portion of the trunk sewer downstream of Evergreen Road and portions of the sewers in Evergreen Road and Blackhaw Drive surcharged, causing sewer backups into several basements in the area. Accurate flow data at Meter 4 is not available for this period because the Mattabassett trunk sewer was surcharged during this storm. Water level in the first manhole in the ROW was observed by the Sewer Department to be near ground surface during the storm. No blockages were observed. As recommended by the Town, property owners in this area have installed backflow valves on their sanitary sewer laterals to prevent future backups.

In order to eliminate the potential for future sewer backups, the Cromwell Sewer Department plans to replace the 8" and 10" diameter sewers within the ROW with a pipe adequate for current wet weather flows plus future sanitary sewage flows after full development within the Meter 4 basin. Based on our estimates of future flows and preliminary hydraulic analysis, replacement of this portion of the trunk sewer with 1,700 linear feet of 15" diameter pipe would be adequate. The cost for this work, based on conceptual design, including construction and engineering, is estimated to be approximately \$ 1,300,000.

Trunk Sewer Between Route 9 and Mattabassett Trunk Sewer

The portion of the trunk sewer between the Evergreen Road Right of Way and Meter 4 consists of 2,200 lf of 12" RCP which crosses under Route 9 and West Street. The minimum capacity of the existing trunk sewer in this area is approximately 2.7 cfs. During the July, 2021 storm peak flows in the trunk sewer were approximately 1.7 cfs. According to the Cromwell Sewer Department, there have been no reports of surcharging or sewer backups in this portion of the trunk sewer. Therefore, it appears that improvements are not necessary in this section of the trunk sewer at this time.

After full development, peak flows are estimated to be approximately 7.5 cfs. Therefore, replacement of this portion of the trunk sewer with an 18" sewer will be required to accommodate full development. Replacement of this section of the trunk sewer would require pipe jacking the portion of the trunk sewer that crosses under Route 9 and West Street. A preliminary estimate of the cost for this work is \$ 7,000,000.

Coles Road Alternative

As an alternative to the replacement of the existing trunk sewer, this alternative would extend the existing Coles Road interceptor to serve the Shunpike Pump Station service area via a combination of gravity and pressure flow. This alternative would include relocation of the pump station to a site adjacent to Route 9 where flow would be pumped across Route 9 via the Coles Road overpass. This alternative would provide service to unsewered areas along Coles Road South of Route 9. This alternate is shown schematically in Figure 7. Based on very preliminary investigations it appears that this alternative may be significantly less expensive than the replacement of the pump station, force main, and the entire trunk sewer. The preliminary cost estimate for this alternative, based on very limited analysis, is in the \$ 10,000,000. range.

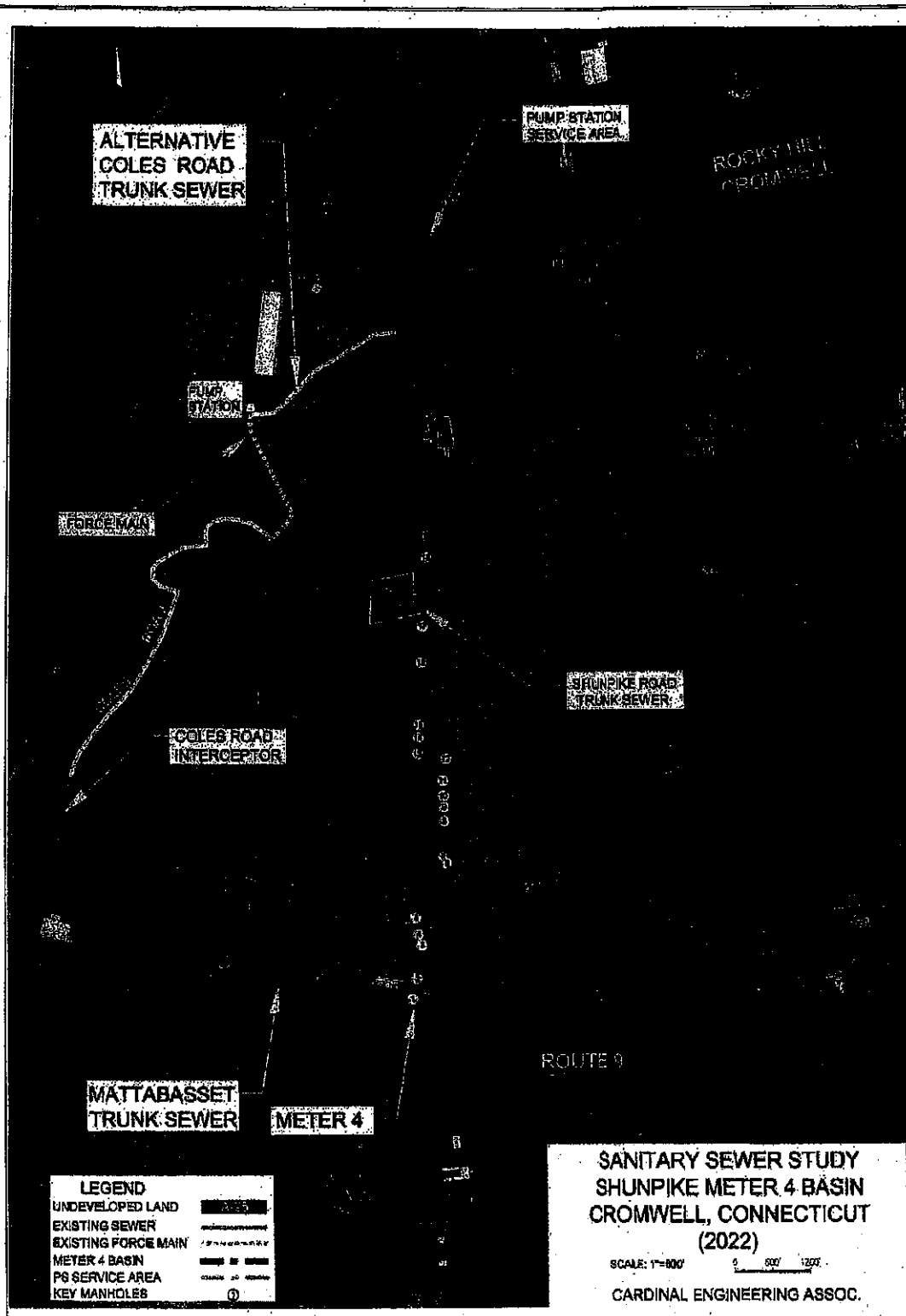


Figure 7 Coles Road Alternative

VI. CONCLUSIONS

Based on Sewer Department records, the Shunpike Road pump station and most of the trunk sewers with the exception of the section between Evergreen Road and Route 9, which the Town plans to replace, is capable of handling present wet weather flows. However, the remainder of the system has very limited reserve capacity and improvements will be necessary as development within the meter basin continues. As development continues within Meter 4 Basin, flows should be monitored to determine when improvements are required and peak flow from future developments should be limited to the capacity of the existing system.

Inflow continues to be a major component of the sewage flow within Meter Basin 4. A significant reduction of the peak inflow rate would increase the reserve capacity in the entire sewer system and increase the amount of future development that could be accommodated before any improvements are necessary. It is strongly recommended that the Sewer Department continue its efforts to locate and eliminate inflow and infiltration within the Meter 4 Sewer-shed.

To accommodate the estimated sewage flows after full development within the meter basin including development of the entire NIT as an office complex, the pump station, force main and the entire trunk sewer system will need to be replaced. The total cost for this work is estimated at \$ 14,000,000. The estimated cost of the Coles Road alternative is in the \$ 10,000,000. range. It is recommended that the Coles Road alternative be investigated in more detail to determine whether it would be a more cost-effective alternative to the replacement of the existing Shunpike Road Trunk Sewer.

Long term flow monitoring should continue within Meter Basin 4 to verify flow rates in the trunk sewer and to identify sources of Inflow and Infiltration. Flow metering at the Pump Station should be updated to include the ability to measure and record wetwell level and pump run time continuously. The I and I study should also include flow isolation, smoke testing, the inspection of manholes in low lying areas and a program to locate and disconnect sump pumps.

**AGREEMENT FOR PROFESSIONAL SERVICES
BY AND BETWEEN
THE TOWN OF CROMWELL WATER POLLUTION CONTROL AUTHORITY
AND
CARDINAL ENGINEERING ASSOCIATES, INC.
FOR
ENGINEERING SERVICES**

THIS AGREEMENT made this _____ day of January, 2023 by and between the Water Pollution Control Authority of the Town of Cromwell, (hereinafter called the "CWPCA") and Cardinal Engineering Associates, Inc. an Engineering firm having offices in Meriden, Connecticut (hereinafter called the "Consultant").

WITNESSETH THAT:

WHEREAS the CWPCA requires the services of the Consultant to provide engineering design and construction administration services for the construction of a relief sewer to alleviate sewer backups in Evergreen Road Blackhaw Drive Area.

WHEREAS the Consultant is a professional corporation authorized to practice professional engineering under the provisions of Section 20-306 (a) of the Connecticut General Statutes (1959 Rev.), as amended; and

WHEREAS, the CWPCA has determined that the Consultant is qualified to perform the services required under this Agreement; and

NOW THEREFORE, the CWPCA and the Consultant, for the consideration and under the terms and conditions hereunder set forth, hereby agree as follows:

ARTICLE I. SCOPE OF SERVICES

The Consultant, in connection with the improvements as described herein, shall perform, in a satisfactory and proper manner, in accordance with standard civil engineering practices as used in the industry and conforming to the standard specifications of the Water Pollution Control Authority and other pertinent Departments of the Town of Cromwell, shall provide the following Engineering Services:

- I. SURVEY AND MAPPING
- II. PRELIMINARY DESIGN
- III. FINAL DESIGN
- IV. PERMITTING
- V. EASEMENT AND TAKING MAPPING
- VI. SUBSURFACE EXPLORATION
- VII. BIDDING AND AWARD ASSISTANCE

- VIII. CONSTRUCTION CONTRACT ADMINISTRATION
- IX. RESIDENT PROJECT REPRESENTATIVE
- X. DIRECT COST
- XI. ADDITIONAL SERVICES

PROJECT DESCRIPTION

This project consists of supplementing the existing sanitary sewer within the Evergreen Road Right-of-way by constructing approximately 1,700 linear feet of relief sewer between Manhole 4-74 in Evergreen Road and Manhole 4-68 adjacent to Route 9 to increase system capacity.

TASK I - SURVEY and MAPPING

Perform all investigative and survey work necessary to establish existing conditions. This task will include field location of all visible utilities, and supplementation with available utility map information. This scope does not include boundary or property survey.

This work will include the following:

- Review available mapping and other documents of the site.
- Surveying information shall be on NAVD 88 vertical datum and NAD 83 horizontal datum conforming to T2 standards.
- Provide two (2) semi-permanent benchmarks and control points, including ties.
- Cardinal will request mapping from all utility companies with underground facilities within the project limits and include the information on the survey.
- Topography will be established within the project limits with contours shown at 1-foot intervals and spot grades to appropriately demonstrate grading.
- Survey features will include existing ground topography; sidewalks; roadway centerline, edge, curb and flowline; driveways; sanitary and storm sewer manhole and catch basin locations; sewer pipe size, type, direction, and invert elevations; visible utility appurtenances and Call Before You Dig utility location information, if available; wetland flagging; water courses; retaining walls; signs; fences, walls, or other permanent features within the work limits.
- Prepare topographic base mapping at a scale suitable for design.

TASK II - PRELIMINARY DESIGN

Cardinal will prepare initial sanitary sewer construction drawings which shall generally define the 35% plan stage presenting the preliminary layout of proposed sewer work. This phase will generally include the following tasks:

- Conduct subsurface soils investigation (borings) to determine soil characteristics and if ledge rock, ground water and/or unsuitable materials are present. Prepare logs of borings. Soil borings will be billed as a direct cost. One day of soil borings is assumed.
- Review the existing site conditions with regard to proposed horizontal and vertical alignment of the sanitary sewer to determine if existing site features may conflict with the proposed alignment. Review existing utility information for potential conflicts.
- Develop horizontal and vertical alignment for the proposed sanitary sewer. The proposed

horizontal and vertical alignments will be designed to provide required capacity, cover over the pipe and minimize impacts.

- Develop Preliminary Design plan and profile at a scale of 1"=40' horizontal and 1"=4' vertical scale drawings which include the following.
 - Title Sheet
 - General Construction Notes and Legend
 - Plan and Profile of Proposed Sanitary Sewer.
 - Sanitary Sewer Details
 - Miscellaneous Details
 - Boring Logs
- Prepare preliminary design level quantity construction cost estimate.
- Determine if any easements will be required for the sewer extension.
- Identify the permits and regulatory approvals that will be required for this project.
- Submit one (1) copy of preliminary sewer plan sheets to the appropriate utility companies.
- Organize a meeting with utility companies and the Town to review the proposed design and potential impacts on utilities. Prepare and distribute minutes of the meeting.
- Meet with Town staff to review the Project design and impacts on adjacent properties.
- Submit one (1) set of plans to the Cromwell WPCA for review and comment.
- Attend one meeting of the WPCA to present the preliminary design plans.

TASK III – FINAL DESIGN

Cardinal will respond to Preliminary Design Comments from the Town and incorporate appropriate comments and changes in the plans and documents prepared in the Preliminary Design Phase. It is assumed that there will be no revisions to the preliminary design concept and alignment after the Preliminary Design has been approved by the Town. Once the comments have been addressed, Cardinal will undertake the following activities to advance the project to Final Construction Documents:

- Incorporate the Town and Regulatory Agency comments into the plan sheets.
- Finalize quantity calculations and cost estimate.
- When the project design is completed and the Town is ready to solicit construction bids, the following documents will be forwarded to the Town:
 - One complete set of final project plans, specifications, and bid documents.
 - Final Construction Cost Estimate
 - A digital (PDF) file of the final construction plans and cost estimate.

TASK IV - PERMITTING

The State Historic Preservation Office (SHPO), the State's two Tribal Historic Preservation Offices (THPO) will be contacted to determine whether there are any areas of environmental concern within the project area. In addition, Cardinal will prepare a NDDB Review Request and submit it to CT DEEP for a final determination as to whether there are any endangered species within the project area. For the purpose of this scope of work, it is assumed that no additional studies or special design will be required.

Inland/Wetlands Permit Applications

- Field delineation and mapping of the State and Federal wetlands along the proposed sewer route adjacent will be performed by a Certified Soil Scientist and Environmental Biologist (SSEB). Cardinal Engineering will survey and plot the State and Federal wetland boundaries and they will be used during the design phase to ensure the proposed layout minimizes wetland impacts to the extent possible.
- The ordinary high-water line shall also be located in the field. The SSEB shall complete soil data sheets and wetland functions and values evaluations if required for an ACOE 404 Permit. The costs of the wetlands delineation and evaluation are included as a direct cost in this proposal.
- Prepare local inland wetland, CTDEEP 401 Water Quality Certificate and U.S. Army Corps of Engineers 404 programmatic general permit applications.
- Attend up to two (2) meetings of the local Inland/Wetlands Commission.
- Attend one meeting with the ACOE and CTDEEP, if required.

Task V - EASEMENTS AND TAKING MAPS

- Prepare Class "D" temporary and permanent easement and/or taking maps in a form suitable for filing in the Town's Land Records. Provide two (2) copies of easement maps and one filing mylar. Easement documents will be prepared by an attorney retained by the Town.

TASK VI - SUBSURFACE EXPLORATION

- Develop a soil boring program and secure the services of a reputable boring contractor.
- Conduct field inspection, observations, and evaluation of samples obtained from such soil borings.
- Submit to the Town, one (1) copy of complete boring logs showing all required information, including surface elevation and ground water elevation at each boring location.
- Soil borings will be invoiced as a direct cost.

TASK VII - DIRECT COST ITEMS

- Soil scientist services, soil borings, geotechnical engineering, mailings, reproductions, photocopies, mileage, and other outside services will be billed as a direct cost.

TASK VIII - BIDDING PHASE SERVICES

Cardinal will assist the Owner through the bidding process. The following tasks are included in this proposal.

- Attend pre-bid meeting.
- Respond to contractors' questions and requests for information (RFI)
- Issue addenda, if required.
- Review bids and bidders' qualifications.
- Provide recommendation for award.

TASK IX - CONSTRUCTION CONTRACT ADMINISTRATION

Under this Phase of the Agreement and upon receipt of the Town's written authorization to proceed

with the Construction Contract Administration services for one construction contract having a total duration of up to *three (3)* months.

- Act as the Town's agent in dealing with the construction contractor including review of the work performed by the construction contractor to establish substantial compliance with the contract documents. The Consultant shall immediately notify the Town in writing in the event any work performed by the construction contractor does not conform to the contract documents, providing detail and specifications as to the manner in which any work performed by the construction contractor does not so conform.
- Furnish the Town with consultation and advice during construction.
- Conduct periodic on-site reviews while construction is in progress in conjunction with services performed under Section I, to review the progress and quality of the work performed by the construction contractor.
- Analyze and review all job problems, including submission of appropriate recommendations to the Town, in writing, providing details and specifications of the problems identified and solutions required.
- Assist in coordinating and planning construction activities.
- Direct the field engineering and inspection work; and attend one (1) pre-construction conference and prepare meeting minutes.
- Prepare construction change orders on forms prescribed by the Town and submit such change orders to the Town with a recommendation as to whether such change order should be approved. The Town's determination as to whether a change order should be approved shall be final.
- Administer the inspection and testing of materials tested on the job site.
- Review and approve or reject shop and working drawings prepared by the construction contractor. In the event that such drawings are rejected, the Consultant shall indicate to the Town and the construction contractor the reasons for rejection in writing.
- Review progress reports and monthly estimates for payment under construction contract. All progress payments to the construction contractor during the course of the job shall be certified for payment by the Consultant. Said certificate of payment shall include a statement by the Consultant that the construction contractor has achieved material and substantial compliance with the construction contract for this stage of the work. In the event the Consultant disapproves the work for which an application for payment is made, or a portion thereof, the Consultant shall advise the Town and the construction contractor of corrective work necessary, in accordance with the provisions of the construction contract.
- Schedule and preside over a minimum of two (2) progress meetings monthly while construction is in progress with the Town and the construction contractor to discuss the progress of the construction contract.
- Make a final inspection prior to approving final payment to the construction contractor and report to the Town on the acceptability of the construction of the completed work in writing. Prior to issuing a final certification of payment, the Consultant shall certify that the work

performed is in material and substantial conformance with the requirements of the construction contract.

TASK X - RESIDENT PROJECT REPRESENTATIVE SERVICES

Under this Phase of the Agreement, and upon receipt of the Town's written authorization to proceed the Consultant shall provide one (1) full-time resident project representative to carry out the following for one *three-month* continuous construction contract.

- Conduct daily on-site observations of the work in progress as a basis for determining that the project is proceeding in accordance with the contract documents
- Check the field layout of the work for conformance to the contract documents.
- Report to the Town, in writing, whenever it believes that the construction contractor's work should be stopped or revised to assure that the completed project will comply with the requirements of the contract documents giving the reasons therefor.
- Direct field tests performed by outside testing companies.
- Obtain data and maintain records necessary for the preparation of "Record" plans.
- Prepare daily and other progress reports required by the Town.
- Maintain at the job site all documents and correspondence relating to the construction contract to which the Town shall have access during regular business hours.
- Prepare and furnish the Town with a set of mylar and vellum "Record Plans" (i.e., "as-built" showing plans and profiles of completed work for the Town's permanent records. The sheet size, scale and other information shall be supplied in accordance with Town requirements.

TASK XI ADDITIONAL SERVICES

If authorized in writing by the Town, Cardinal will furnish additional services of the following types which are not to be considered part of the basic services but can be provided for an additional fee. These services will be performed on a cost-plus basis and invoiced at the actual hourly rate times 2.90.

- Additional meetings with municipal or regulatory agencies.
- Meetings with CTDOT, if required.
- Public information meetings, if required.
- Design of improvements to sewers beyond the Evergreen ROW.
- Design of utility relocation, utility test pits, if required.
- Roadway improvements other than permanent trench repair.
- The design of roadway or drainage relocations or other improvements.
- Additional soil borings and/or geotechnical engineering services if required.
- Archaeological surveys, biological surveys, if required.
- Preparation of funding application, if required.
- Significant changes in the general scope of the project.
- Provide additional Design services as may be required to obtain inland/wetland permits such as wetland restoration plans, major revisions in design, special construction details and specifications, etc.

- Other services that are required, but not included in the above scope and/or additional services requested by the Owner.

ARTICLE II RESPONSIBILITIES OF THE TOWN

- Make provisions for Cardinal to enter private property as required to perform the services under this Scope of services.
- Provide Town of Cromwell Standard Bid Forms and General Specifications.
- The Town shall advertise for bids, open the sealed bids at the appointed time and place and pay for all costs incidental thereto.
- The Town shall pay all fees required in obtaining permits.
- The Town shall prepare easement agreements, and acquire all land and rights-of-way required for the project.
- Place at the Consultant's disposal, all available information pertinent to the project such as:
 - Sewer easement maps, assessor's map, as-built plans of existing sanitary sewers, water mains and storm drainage, property maps, deeds, assessor's maps.
- Perform CCTV inspection of existing sanitary sewer, if required.
- Provide traffic control for soil borings in Evergreen Road, if required.
- It is assumed that Town permit fees will be waived for soil borings.

ARTICLE III COMPENSATION

The Town shall pay the Consultant the following sums for the services as listed below:

DESIGN PHASE

TASK I SURVEY and MAPPING

For all Survey Services, the Lump Sum Fee of \$ 11,500.

TASK II PRELIMINARY DESIGN

For all services under this Section, the Lump Sum Fee of \$ 39,000.

TASK III FINAL DESIGN

For all services under this Section, the Lump Sum Fee of \$ 25,000.

TASK IV PERMITTING

For all services under this Section, the actual payroll cost times 2.90 and/or actual invoice cost plus 10% for outside services.
Estimated fee not to be exceeded without Town approval: \$ 8,000.

TASK V EASEMENT and TAKING MAPS

For all services under this Section, the cost per map of \$ 1,250.
Estimated fee based on 8 maps: \$ 10,000.

TASK VI SUBSURFACE EXPLORATION

For all services under this Section, the actual payroll cost times 2.90.
Estimated fee not to be exceeded without Town approval: \$ 4,000.

TASK VII DIRECT COSTS

For Soil Borings, Soil Testing, Geotechnical Engineering, Wetland Delineation, mailings, reproductions, and other outside services actual invoice cost plus 10%.
Estimated fee not to be exceeded without Town approval: \$ 13,000.

CONSTRUCTION PHASE

TASK VIII BIDDING PHASE SERVICES

For all services under this Section, the Lump Sum Fee of \$ 3,000.

TASK IX CONSTRUCTION CONTRACT ADMINISTRATION

For all services under this Section, the actual payroll cost times 2.90
Estimated fee: \$ 23,000.

TASK X PROJECT REPRESENTATIVE SERVICES

For all services under this Section, the actual payroll cost times 2.90
Estimated fee: \$ 88,000.

TASK XI Additional Services

For all services under this Section, the actual payroll cost times 2.90 plus, actual invoice cost plus 10% for outside services.
Estimated fee: TBD

IN WITNESS WHEREOF, the CWPCA and the Consultant have executed this Agreement as of the date and year first written above.

**WATER POLLUTION CONTROL AUTHORITY
TOWN OF CROMWELL, CONNECTICUT**

By: _____

Date: _____

Title _____

CARDINAL ENGINEERING ASSOCIATES, INC.

By: _____

Date: _____

Joseph A. Cermola III, President

December 27, 2022