

RESOLUTION OF THE TOWNSHIP OF IRVINGTON, NJ

No. DPW 20-0406-11

Date of Adoption APRIL 6, 2020

APPROVED AS TO FORM AND LEGALITY ON THE BASIS OF FACTS SET FORTH BY

Legislative Research Officer

PRESENTED BY COUNCIL MEMBER FREDERIC SECONDED BY HUDLEY

RESOLUTION FOR A TREATMENT WORKS APPROVAL FOR 722 CHANCELLOR AVENUE

WHEREAS, Chancellor and Union Urban Renewal LLC, has applied for a Treatment works Approval for the property located at 722 Chancellor Avenue; and

WHEREAS, the property located at 722 Chancellor Avenue, Block 299 Lot 20, which is located at the intersection of Chancellor Avenue and Union Avenue is currently vacant has been approved by the Township's Zoning Board of Adjustment for the redevelopment of this site as a mixed use commercial and residential development; and

WHEREAS, the proposed development will potentially discharge greater than 8,000 gallons per day of sanitary waste; and

WHEREAS, the requirements of the New Jersey Department of Environmental Protection (NJDEP) require that any new development with a sanitary sewer discharge of 8,000 gallons per day or greater requires a Treatment Works approval, the first portion of which is to obtain the approval of the owner of the collection system, which in this case is the Township; and

WHEREAS, the applicant's engineer has prepared a sewer study indicating that this discharge will not adversely affect the Township's sanitary sewer collection system; and

WHEREAS, the Township Engineer has reviewed this study and concurs in the conclusions in this study and recommends that a Treatment Works Approval be approved for this project.

NOW, THEREFORE, BE IT RESOLVED BY MUNICIPAL COUNCIL OF THE TOWNSHIP OF IRVINGTON that a Treatment Works Approval be granted to Chancellor and Union Urban Renewal LLC for the property located at 722 Chancellor Avenue, Block 299 Lot 20, 22 and that the Township Engineer be authorized to endorse this application on behalf of the Township.

RECORD OF COUNCIL VOTE

X = Indicates Vote N.V. = No Vote A.B. = Absent

COUNCIL MEMBER	YES	NO	N.V.	A.B.	COUNCIL MEMBER	YES	NO	N.V.	A.B.
BEASLEY	X				INMAN	X			
COX				X	VICK	X			
FREDERIC, 2ND VICE PRESIDENT	X				BURGESS, PRESIDENT	X			
HUDLEY, 1ST VICE PRESIDENT	X								

PRESIDENT OF COUNCIL James C. Burgess MUNICIPAL CLERK Donald E. Muenich DATE April 6, 2020

I hereby certify that the foregoing is a true copy of a Resolution duly adopted by the Municipal Council. In witness whereof I have hereunto set my hand and the Corporate Seal of the Township of Irvington.

MUNICIPAL CLERK Donald E. Muenich DATE 4-6-20

ADMINISTRATOR ☐ ASSESSOR ☐ BLDG ☐ CFO ☐ COLLECTOR ☐ COURT ☐ EDGO ☐ ENGINEER ☐ FIRE~CF ☐ HEALTH ☐ HOUSING ☐ INIC ☐ JUDGE ☐ LEGAL ☐ LIBR ☐ LICEN ☐ MAYOR ☐ NPP ☐ OCDP ☐ PARKS ☐ PAYROLL ☐ PUBLIC SAFETY~DIR ☐ PUBLIC WORKS ☐ PURCHASING ☐ SEC~PB/ZBA ☐ TRAFFIC ☐ ZONING~OFF ☐ DLGS ☐ GNCD ☐ OTHER(S): _____



Office of the Township Engineer
Department of Public Works
Attn: John A. Wiggins, P.E., P.P.
Irvington Municipal Building
Civic Square, Irvington, NJ 07111
Tel: 973-495-4000 Fax: 973-495-4005

Tony Vauss, Mayor
John A. Wiggins, P.E., P.P.,
Township Engineer

TO: Harold Weiner Municipal Clerk

FROM: John A. Wiggins, P.E., P.P., and Township Engineer

RE: Treatment Works Approval
722 Chancellor Avenue
Block 299 Lot 20

Date: March 18, 2020

I am in receipt of a request for at Treatment Works Approval for 722 Chancellor Avenue (Block 299 Lot 20). This is the vacant property that is located at the corner of Union Avenue and Chancellor Avenue that was formerly a pharmacy and movie theater.

The project for this property has been approved by the Zoning Board of Adjustment and, in order for the development to proceed, the applicant's engineer has supplied this request with accompanying calculations.

A Treatment Works Approval is the permit process established by the New Jersey Department of Environmental Protection (NJDEP) by which a proposed development gains the right to connect to our sewer system. This process, which begins with the municipality, starts with the approval by the Township that our sewer system can accommodate the additional sewer flow. Our approval then moves to the facility that receives our sanitary sewer flow, in our case the Joint Meeting of Union and Essex County Sewers, so that they can determine if they have the capacity to receive and treat this additional flow. After that, those approvals are forwarded to NJDEP for their review and approval. Once that NJDEP approval is obtained, we receive a copy of the NJDEP approval and the developer can connect to our sewer system.

At this point in time, the applicant's engineer, E2Project Management LLC has supplied an engineering review and calculation to support that our system can receive this additional flow without any adverse impact on our sewer system. I have reviewed those calculations and concur in the conclusion that has been forwarded. Copies of those documents are attached for reference.

Therefore, I recommend that the Municipal Council approve by resolution a Treatment Works Approval for the project located at 722 Chancellor Avenue. I have prepared a draft of a resolution that approves this application and allows me to endorse this permit application on behalf of the Township.

Should you have any questions or comments with respect to the above, please feel free to contact me.

/jaw

CC: Althea Headley, Purchasing Agent/Asst. Business Administrator
Musa Malik, Business Administrator
Incls.



E2 Project Management LLC

87 Hibernia Avenue
Rockaway, New Jersey 07866
Tel (973) 299-5200 Fax (973) 299-5059

March 16, 2020

Mr. John Wiggins, PE
Irvington Township Engineer
Irvington Municipal Building
1 Civic Square
Irvington, NJ 07111

RE: Proposed Sanitary Sewer Connection
722 Chancellor Avenue
Block 299, Lot 20
Irvington Township, NJ
E2PM Project #P-19-62-02

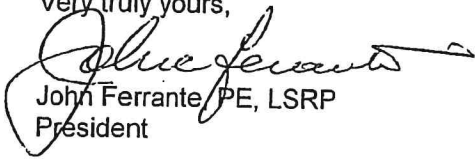
Dear Mr. Wiggins:

Enclosed please find a copy of sanitary sewer impact calculations in support of a proposed connection to the Municipal sanitary sewer located in Union Avenue. Based upon a proposed discharge from the completed site greater than 8,000 gallons per day (12,600 gallons per day), approval from the New Jersey Department of Environmental Protection (NJDEP) via a Treatment Works Approval (TWA) permit is required.

Based upon the attached analysis of the existing sanitary sewer, the proposed discharge will not adversely impact the operation of the sewer system in that the additional flow can be accommodated within the existing system without causing the system to surcharge or malfunction.

On behalf of the applicant, we request that the attached NJDEP Form WQM-003 be completed by the Township. This completed form is required for a complete TWA permit application. Please contact our office with any question or if you require additional information.

Very truly yours,


John Ferrante PE, LSRP
President

Attachments

cc: Chancellor and Union, Urban Renewal, LLC

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Water Quality

Reset Form

STATEMENTS OF CONSENT*A supplement to the TWA-1 or NJPDES-1 Forms***General Information**

Applicant/Owner/Operator: Chancellor and Union, Urban Renewal, LLC, c/o The NRP Group

Location of Work Site: 722 Chancellor Avenue, Irvington, NJ 07111

Name of Project/Facility: 722 Chancellor Avenue

Type of permit application (TWA, NJPDES/SIU): TWA Permit

NJPDES Permit Number (if applicable):

A-1 Consent By Governing Body**

(Consent by the municipality in which the project is located.)

As an authorized representative of the governing body, I hereby certify that the

Township of Irvington

(Name of Municipality or Municipal Authority)

consents to the submission of the above listed application to the Department of Environmental Protection for approval. I further certify that the project as proposed conforms with the requirements of all municipal ordinances.

Signed* _____ Date: _____

Type Name and Position: _____

* Cite authorization to sign for the governing body

Resolution# _____ Dated: _____

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the Governing Body's full resolution, consenting to the project, must be submitted with the application.)

**** Note**

For most Treatment Works Approval (TWA) applications, this section may be omitted if a sewerage entity (for example, sewerage authority, utilities authority, municipal utilities authority, joint meeting, etc.) has responsibility for regulating the construction and operation of wastewater treatment and conveyance facilities within the municipality. In such cases, the governing body consent requirement may be satisfied by completing Section A-2. Applicants for TWAs for industrial/commercial facilities discharging pursuant to NJPDES/DSW or DGW permits must complete section A-1.

B. Certification by Wastewater Conveyance System Owner**

By agreeing to accept wastewater from the project, I (we) hereby certify that to the best of my (our) knowledge the wastewater conveyance system, into which the project proposed under this application will connect, has adequate capacity in accordance with N.J.A.C. 7:14A-1.2 ("Adequate conveyance capacity"). Furthermore, I (we) am (are) not aware of inadequate conveyance capacity conditions in any portion of the downstream facilities necessary to convey the wastewater from this project to the treatment plant.

Name of Municipality or Authority Signed* Date Type Name and Position

* Cite authorization to sign for the governing body

Resolution# Dated

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the governing body's full resolution, consenting to the project, must be submitted with the application.)

** Note

1. For TWA applications, this section must be completed by the owner/operator of the wastewater conveyance system into which the project named herein will directly connect.

2. For NJPDES/SIU applications, this section must be completed when the owner/operator wastewater conveyance system into which the project named herein will directly connect is different than the entity listed under A-3.

C. Certification by Wastewater Treatment Facility Owner**

(For TWA applications that include a sewer connection/extension.)

I (we) hereby certify that the committed flow*** to the

(Name of Wastewater Treatment Plant)

does not exceed the presently permitted design capacity and with the additional flow proposed by this application, the permitted design capacity is not anticipated to be exceeded. I (we) further certify that the treatment plant is currently complying with its conventional and non-conventional NJPDES permit requirements (see N.J.A.C. 7:14A-22.17(b)-(d), percent removal and toxicity requirements excluded from this certification) as determined by a rolling average of the three most recent monthly discharge monitoring reports that were required to be submitted to the Department as of this date, and based upon my (our) assessment of all information pertinent to this permit request, is anticipated to continue to do so with the additional flow from this project.

Accepted for Treatment by

(Name of Treating Authority)

Signed* Date Type Name and Position Name of project and/or location

* Cite authorization to sign for the governing body

Resolution# Dated

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the governing body's full resolution, consenting to the project, must be submitted with the application.)

** For TWA applications, this section must be completed by the owner of the wastewater treatment facility receiving the wastewater identified in this application.

SANITARY SEWER SYSTEM

DEVELOPMENTAL IMPACT ASSESSMENT

PROJECT Mixed-Use Commercial and Residential Development

LOCATION 722 Chancellor Avenue Block 299, Lot 20

BY John C. Ferrante

No. 24720

(PRINT SIGNATURE)

N.J. LICENSE #

SIGNATURE

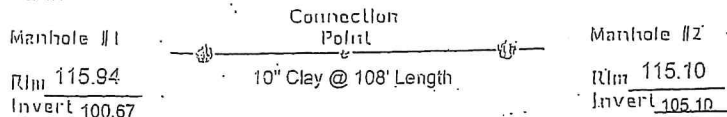
March 6, 2020

1. NARRATIVE (Briefly describe project)

The proposed sanitary load has been calculated to be 0.02 cfs, and will be discharged to existing 10-inch sanitary sewer located within union avenue.

2. RECEIVING SANITARY SEWER SYSTEM

A. PLAN



B. CAPACITY ANALYSIS (Q & V)

Pipe Diameter 10-in = 0.833

Slope (S) $(105.1 - 100.67) / 108 = 0.04$

Pipe End Area (a) 0.545

$$Q = a \times \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

$$Q = \frac{25.37}{1} \text{ CFS (Theoretical Capacity)}$$

$$V = \frac{1.486}{n} \times R^{2/3} \times S^{1/2}$$

$$V = \frac{8.06}{1} \text{ FPS}$$

Pipe Const. _____

Friction Coeff. (n) 0.013

Hydraulic Radius (R) 0.416

C. Average observed daily flow in manhole below connection point.
4" Depth of Flow 1.14 CFS

3. DISCHARGE ANALYSIS FROM PROJECT AT CONNECTION POINT

56 Total Units Proposed

One Bedroom: 16 units

Two Bedroom: 24 units

Three Bedroom: 16 units

$$\frac{12,600}{2,000 \text{ GPD}} \text{ GPD} = 8.8 \text{ GPM} / 448 = \frac{0.02}{1} \text{ CFS}$$

2,000 GPD REQUIRES NJ DEP SEWER EXTENSION PERMIT

II. SUMMARY & CONCLUSION

A. SUMMARY

Theoretical Capacity of Receiving System at Connection Point 4.37 CFS

Average Observed Flow 1.14 CFS

Discharge from Project 0.02 CFS

B. CONCLUSION

Average observed flow plus computed discharge from project will bring the receiving sanitary sewer system at the connection point to 26.5% percent of its theoretical capacity.

NOTE: Use of Manning Formula nomograph permitted.

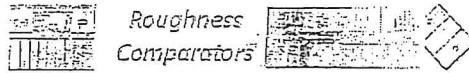
Cite Reference _____

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Go! III



B X



Partially FULL Pipe Flow Calculator and Equations

[Fluid Flow Table of Contents](#)
[Hydraulic and Pneumatic Knowledge](#)
[Fluid Power Equipment](#)

This engineering calculator determines the Flow within a partially full pipe (<math>\leq 1/2</math> full) using the Manning equation. This calculator can also be used for uniform flow in a pipe, but the Manning roughness coefficient needs to be considered to be variable, dependent upon the depth of flow.

Partially Full Pipe Flow Calculations - U.S. Units

II. Calculation of Discharge, Q , and average velocity, V
for pipes more than half full

Instructions: Enter values in blue boxes. Calculations in yellow

Inputs

Calculations

Pipe Diameter, $D = 10$ in
Depth of flow, $y = 4$ in

Pipe Diameter, $D = 0.8333333$ ft
Pipe Radius, $r = 0.4166666$ ft

(must have $y \geq D/2$)

Circ. Segment Height, $h = 0.500$ ft

Full Pipe Manning
roughness, $n_{full} = 0.013$
Channel bottom
slope, $S = 0.04$ ft/ft

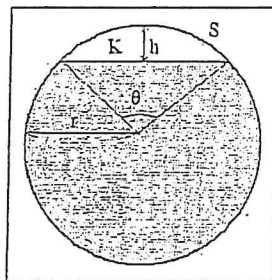
Central Angle, $\theta = 3.54$ radians
Cross-Sect. Area, $A = 0.20$ ft²

Calculations

Wetted Perimeter, $P = 1.1$ ft
Hydraulic Radius, $R = 0.18$ ft
Discharge, $Q = 1.14$ cfs
Ave. Velocity, $V = 5.59$ ft/sec

$n/n_{full} = 1.3$
Partially Full Manning
roughness, $n = 0.017$

pipe % full $[(A/A_{full}) * 100\%] = 37.4\%$



Partially Full Pipe Flow Parameters
(More Than Half Full)

$$r = D/2$$

$$h = 2r - y$$

(hydraulic radius)

$$R = A/P$$

(Manning Equation)

$$Q = (1.49/n)(A)(R^{2/3})(S^{1/2})$$

$$V = Q/A$$

P

$$\theta = 2 \arccos \left(\frac{r-h}{r} \right)$$

$$A = \pi r^2 - \frac{r^2(\theta - \sin \theta)}{2}$$

$$P = 2\pi r - r * \theta$$

Equation used for n/n_{full} : $n/n_{full} = 1.25 - (y/D - 0.5) * 0.5$ (for $0.5 \leq y/D \leq 1$)

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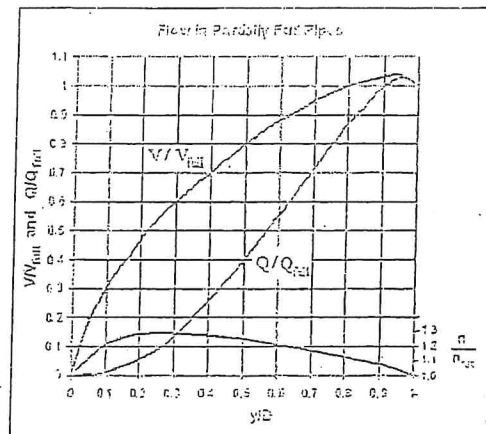
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