

COAL CITY VILLAGE BOARD MEETING

**WEDNESDAY
JUNE 24, 2020
7:00 P.M.**

(Immediately following the Public Hearing)

**COAL CITY VILLAGE HALL
515 S. BROADWAY, COAL CITY, ILLINOIS**

AGENDA

1. Call meeting to order
2. Pledge of Allegiance
3. Approval of Minutes June 10, 2020
4. Approval of Warrant List
5. Public Comment
6. Ordinance 20-09 Variance Request
70 E. Blackstone
George Robles

7. Ordinance 20-10 Variance Request
285 W. First Street
Ryan and Megan Wharrie
8. Ordinance 20-11 Amending Ordinance 20-07
Concerning Temporary Outdoor Dining and
Drinking Permit Program
9. Resolution 20-21 Supporting Down State Stabilization Partnership
With Coal City Dental Center
10. Authorizing Payment to CBBEL for Construction Oversight Engineering of
Invoices 10-12 of the South Broadway Reconstruction Project
11. Request for Payment Payment #1 D Construction
Valerio Road Culvert Replacement Project
12. Request for Payment Payment #1 Chamlin Engineering
Lions Park Washrooms
13. Chamlin Engineering Approval to Proceed with Filing of IEPA Permits
for Sanitary Treatment Plant Equipment
14. Report of the Mayor
15. Report of the Trustees: S. Beach
T. Bradley
D. Spesia
D. Greggain
R. Bradley
D. Togliatti
16. Report of Village Clerk
17. Report of Village Attorney
18. Report of Village Engineer
19. Report of Chief of Police

20. Report of Village Administrator

21. Adjourn

This meeting will be conducted by audio or video conference without a physically present quorum of the Village of Coal City Board of Trustees because of a disaster declaration related to COVID-19 public health concerns affecting the Village. The Mayor has determined that an in-person meeting with all participants at Village Hall, 515 S. Broadway, Coal City, Illinois is not practical or prudent because of the disaster. The Mayor, Village Trustees, Village Clerk, and Village Attorney will not be physically present at the Village Hall, if attendance is unfeasible due to the disaster. Physical public attendance at Village Hall may be limited or not feasible, so alternative arrangements for public access to participate and hear the meeting are set forth below.

Members of the public can participate in four ways:

1. Attend the meeting at the Village Hall, which will be open to the public for the Public Hearing and meeting with appropriate social distancing safeguards in place.
2. Leave a voicemail comment in advance of the meeting by calling 815-634-8608. The prerecorded comment will be played during the virtual meeting up to a maximum of 3-minutes. The deadline to submit this voice mail is 12:00 p.m. on Tuesday, June 23, 2020.
3. Send an email to pnoffsinger@coalcity-il.gov. These emailed comments will be read by the Village Clerk up to a maximum of 3-minutes. The deadline to submit this is 12:00 p.m. on Tuesday, June 23, 2020.
4. Participation in the meeting remotely via *Zoom* video conference. Space is limited and citizens must indicate they intend to participate in this manner by notifying the Village Clerk by 12:00 p.m. on Tuesday, June 23, 2020 and indicate whether they intend to participate in public comments. Participants will receive a maximum of 3 minutes for public comment at the meeting.

The meeting will also be audio recorded and made available to the public, as provided by law.

MEMO

TO: Mayor Halliday and the Board of Trustees

FROM: Matthew T. Fritz
Village Administrator

MEETING

DATE: June 24, 2020

RE: SIDE YARD VARIANCE FOR 70 E BLACKSTONE STREET

George Robles, the owner of 70 E. Blackstone began to construct an improvement on the east side of his home due to water drainage difficulties that were taking place. However, the east side yard of his residence has very limited square footage in which any improvements can take place. The petitioner was informed it was a necessity that he submit a petition for a variance consideration in order to complete this side porch entrance. Some of the posts have been installed, but Mr. Robles stopped construction in order to gain proper consideration. Currently, water runs beneath the east side of his home foundation from the north, he is hoping to make an improvement in order to gain access to the east side of his home and assist with water drainage to include a roof extension on the east side.

At the June 15th Planning & Zoning Board, the Board unanimously supported the recommendation that the petitioners be granted the variance in order to complete the improvements within his interior side yard. Concerns were discussed since there was minimal side yard remaining, but the location including much industrial uses and metal buildings led to the request being supported. No one aside from the petitioner chose to appear at the public hearing in order to speak about the petition.

Recommendation:

Adopt Ordinance No. _____: Granting a Variance to within the Side Yard at 70 E. Blackstone Street.

COAL CITY ZONING APPLICATION

Owners name or beneficiary of land trust: George Robles

Address: 70 E. Blackstone St. Phone number: (815)-650-7221

Owner represented by: Self Attorney

Contract purchaser Self Other agent _____

Agents name George Robles Phone number: 815-650-7221

Address: 70 E. Blackstone St.

Existing zoning: RS-3 Use of surrounding properties: North C4 South _____

East RS3000 West C4

What zoning change or variance (specify) To allow a porch to be constructed closer to the lot line than ordinances permit

To allow what use grill area, along with area for kids to play

Tax number of subject property: 09-02-187-004

Common address of property: 70 E Blackstone

Parcel dimensions: 50 ft by 120 ft Lot area (sq. ft.) _____

Street frontage 80 ft

Y Legal description RESUB OF BLK 49 ^{LTS.} ~~10~~ 10 + 11 BLK 49 + PT VAC STREET S + ADJ PER 303935

In addition, the applicant must comply with the ZONING ORDINANCE OF THE VILLAGE OF COAL CITY, adopted June 1, 1989, Chapter II, sections A through F available for review at the Village Clerks office. Also attached to the application are tables 1, 2 and 3 for the applicant's reference.

I, (we) certify that all of the above statements and the statements contained in any papers or plans submitted herewith are true to the best of my (our) knowledge and belief.

George Robb, being first duly sworn, on oath deposes and says,

Applicant's Name

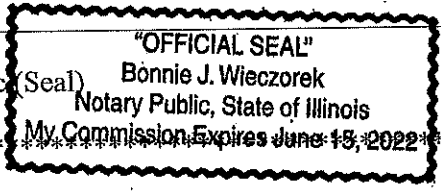
that all of the above statements and the statements contained in the documents submitted herewith are true.

Subscribed and sworn before me on this 14 day of May, 20 20.

Bonnie J. Wiczorek

Signature of Owner

Notary Public (Seal)



Bonnie J. Wiczorek
Notary Public, State of Illinois

My Commission Expires June 15, 2022

You may attach additional pages, if needed, to support the documentation of application.

Please note the number of pages attached. 1

FOR OFFICE USE ONLY

Case number ZA-315

Location of hearing

Filing date 5-19-20

Village Hall

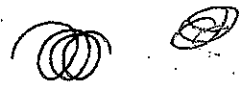
Hearing date 6-15-20

515 South Broadway

Filing fee \$ 100.00

Coal City, Illinois

Hearing time 7 pm



▼ 70 blackstone X Q

Show search results for 70 blac...



\$95,000.00
09-02-157-004
8/26/2018

09-02-157-013

09-02-157-016

09-02-157-004

09-02-157-018

E BLACKSTONE ST

Distance from lot line 30ft

Original Distance from lot line 8ft.

40 ft

AFFIDAVIT RE: NOTICE TO ADJOINING PROPERTY OWNERS

The undersigned, George Rables, being first duly sworn on oath, deposes and states as follows, to wit:

1. That I am the applicant, or the agent for the applicant, in zoning case #ZA- 315, now pending before the Zoning Board of Appeals of the Village of Coal City, Illinois.
2. That with respect to said Zoning Case, and pursuant to requirement. I have notified all owners of property adjacent to the property in question, as to the date, time and place of the public hearing to be conducted by the said Zoning Board of Appeals; and in conjunction therewith, I have included with said notification a copy of the zoning application heretofore filed in this matter.
3. That said notification was given to all such adjoining property owners, by letter, a copy of which is attached hereto and made a part hereof, which letter was sent by Certified Mail Return Receipt Requested or in another type of form showing receipt thereof.
4. That, further said notification was effective at least fifteen (15) but not more than (30) days prior to the said public hearing.
5. Following, is a list of the names and addresses of all such adjoining property owners, all of whom have been notified in the manner aforesaid; and attached hereto are the certified mailing receipts, or another type of form, evidencing such notification:
ATT Illinois 65 N. Webster 1st Floor Joliet, IL 60432
Wren Const. 555 S. Broadway Coal City, IL
Adam Richmond 60 Blackstone Coal City, IL
William + Donna Wethington 420 E Third St. Coal City, IL
6. That further notice was published in a newspaper of general circulation that is published in the Village at least fifteen (15) but not more than thirty (30) days before the scheduled date of the hearing and evidenced by a publishers certificate of publication a copy of which is attached hereto and made a part hereof.
7. In addition to the above requirements at least one sign was posted in the front yard of the affected property facing and visible from a public street and no further than thirty (30) feet from the right-of-way line.

George Rables
Applicant
Agent for applicant

SUBSCRIBED and SWORN to before me,
this _____ day of _____, 20____.

Notary Public

THE VILLAGE OF COAL CITY
GRUNDY & WILL COUNTIES, ILLINOIS

ORDINANCE
NUMBER _____

**AN ORDINANCE GRANTING A VARIANCE TO THE ZONING CODE FOR SIDE
YARD SETBACK REQUIREMENTS AT 70 E. BLACKSTONE STREET**

TERRY HALLIDAY, President
PAMELA M. NOFFSINGER, Village Clerk

SARAH BEACH
ROSS BRADLEY
TIMOTHY BRADLEY
DAN GREGGAIN
DAVID SPESIA
DAVID TOGLIATTI
Village Trustees

Published in pamphlet form by authority of the President and Board of Trustees of the Village of Coal City
on _____, 2020

ORDINANCE NO. _____

AN ORDINANCE GRANTING A VARIANCE TO THE ZONING CODE FOR SIDE YARD SETBACK REQUIREMENTS AT 70 E. BLACKSTONE STREET

WHEREAS, an application for variances from Section 156.73 of the Village of Coal City Zoning Code (“Zoning Code”) was filed by George Robles (“applicant”) on May 19, 2020 for changes to the side yard setback due to the placement of a new means of accessing the newly renovated residence; and

WHEREAS, Section 156.73 requires a minimum interior side yard depth of 8 feet, the applicant is seeking a variation from these requirements to have a minimum interior side setback of 1 foot (reduction of 7 feet); and

WHEREAS, a public hearing was noticed and duly held on June 15, 2020, subsequent to the public hearing, the Zoning Board of Appeals positively recommended to the Board of Trustees the petition to include a variance from the requisite interior side yard setback within the RS-3 zoning district; and

WHEREAS, Section 156-250 permits the Village Board to approve variations from the Zoning Code; and

WHEREAS, the Village Board of Trustees and the President of the Village of Coal City believe it is in the best interests of the Village to grant the requested variances.

NOW THEREFORE, BE IT ORDAINED by the President and Board of Trustees of the Village of Coal City, Grundy and Will Counties, Illinois, as follows:

Section 1. Recitals. The foregoing recitals shall be and are hereby incorporated into and made a part of this Ordinance as if fully set forth in this Section 1.

Section 2. Findings of Fact. The Board of Trustees find the following regarding the petitioner’s request for a front yard variance:

- A. **Special Circumstances Not Found Elsewhere.** This property is located within the Core Area and neighbors industrially used property, which possess different setback standards as well as different types of structures.
- B. **Preserves Rights Conferred by the District.** This residential property is located within RS-3 zoning, which would allow the primary structures without any setbacks.
- C. **Necessary for Use of the Property.** This variance shall allow access to the residential structure via the side yard; due to this residence’s placement within the property, it is necessary to accommodate additional means of ingress/egress to the home.

- D. **Consistency with the Local Area and Comprehensive Plan.** Granting this variance is consistent with the principles provided in the Comprehensive Plan. Allowing this structure is consistent with the structures already located within the neighborhood.
- E. **Minimum Variance Recommended.** Although the residence is in need of repair to mitigate water damage, the options due to the side yard square footage is limited and this planned entrance is a minimal solution to the petitioner's request.

Section 3. Description of the Property. The property is located at 70 East Blackstone Street in the Village of Coal City within an RS-3 District.

Section 4. Public Hearing. A public hearing was advertised on May 27, 2020 in the Coal City Courant and held by the Zoning Board of Appeals on June 15, 2020, at which time the Board recommended the petition for approval by the Board of Trustees.

Section 5. Variance. The variation requested in the May 19, 2020 Variance Application to Section 156.73 of the Zoning Code shall reduce the interior side yard setback from 8 feet to 1 foot.

Section 6. Conditions. The variances granted herein are contingent and subject to the following conditions:

- A. The construction of the new entrance improvement shall be consistent with the information previously submitted and according to the presentations to the Planning & Zoning Board Meeting of June 15, 2020.
- B. The drainage resulting from the improvement within the side yard shall not affect the adjacent neighbors of the petitioner.

Section 7. Severability. In the event a court of competent jurisdiction finds this ordinance or any provision hereof to be invalid or unenforceable as applied, such finding shall not affect the validity of the remaining provisions of this ordinance and the application thereof to the greatest extent permitted by law.

**AN ORDINANCE GRANTING A VARIANCE TO THE ZONING CODE FOR SIDE YARD SETBACK
REQUIREMENTS AT 70 E BLACKSTONE STREET**

Section 8. Repeal and Savings Clause. All ordinances or parts of ordinances in conflict herewith are hereby repealed; provided, however, that nothing herein contained shall affect any rights, actions, or causes of action which shall have accrued to the Village of Coal City prior to the effective date of this ordinance.

Section 9. Effectiveness. This ordinance shall be in full force and effect from and after passage, approval and publication in pamphlet form as provided by law.

SO ORDAINED this _____ day of _____, 2020, at Coal City,
Grundy and Will Counties, Illinois.

AYES:

NAYS:

ABSENT:

ABSTAIN:

VILLAGE OF COAL CITY

Terry Halliday, President

Attest:

Pamela M. Noffsinger, Clerk

MEMO

TO: Mayor Halliday and the Board of Trustees

FROM: Matthew T. Fritz
Village Administrator

MEETING

DATE: June 24, 2020

RE: CORNER SIDE YARD VARIANCE FOR FENCE AT 285 W FIRST STREET

The owners of 285 W. First Street, Ryan and Megan Wharrie properly applied for a building permit in order to construct a fence within their backyard, which is located at the southwest corner of First Street & DeWitte. However, when Kyle Watson went to perform the required inspection, it turned out that the diagram submitted with the permit was inadequate for revealing the fence was planned to be installed within the corner side yard. At that point, the petitioner was consulted and informed that they could proceed at their own peril because the installation required a variance. However, staff assured the homeowners that in light of no meetings being scheduled and the transparency that existed with the decorative fence that the variance request would simply be held until the Zoning Board of Appeals could convene in order to hear the variance request. This was acceptable to the residents.

At the June 15th Planning & Zoning Board, the Board unanimously supported the recommendation that the petitioners be granted the variance in order to possess a fence within the corner side yard at their residence located at the southeast corner of First & Mary Street. No one aside from the petitioner chose to appear at the public hearing in order to speak about the petition.

Recommendation:

Adopt Ordinance No. _____: Granting a Variance to Place a Fence within the Corner Side Yard at 285 W. First Street.

COAL CITY ZONING APPLICATION

Owners name or beneficiary of land trust: Ryan + Megan Wharrie

Address: 285 W. 1st St. Phone number: 815-210-4209

Owner represented by: Self Attorney

Contract purchaser _____ Other agent _____

Agents name _____ Phone number: _____

Address: _____

Existing zoning: R Use of surrounding properties: North R South R

East R West R

What zoning change or variance: (specify) back yard fence extending to back corner side yard (see highlighted portion of the attached survey)

To allow what use security + decoration

Tax number of subject property: 06-34-480-001

Common address of property: 285 W. 1st St.

Parcel dimensions: 118.55' x 184.80' Lot area (sq. ft.) 21,908

Street frontage First St - 118' 55" Mary St - 184' 80"

Legal description Trotters 3rd Sub Lts 9 + 10 BLK 1

Sec 34-33-8

In addition, the applicant must comply with the ZONING ORDINANCE OF THE VILLAGE OF COAL CITY, adopted June 1, 1989, Chapter II, sections A through F available for review at the Village Clerks office. Also attached to the application are tables 1, 2 and 3 for the applicant's reference.

I, (we) certify that all of the above statements and the statements contained in any papers or plans submitted herewith are true to the best of my (our) knowledge and belief.

Ryan M. Wharrie, being first duly sworn, on oath deposes and says,
Applicant's Name

that all of the above statements and the statements contained in the documents submitted herewith are true.

Subscribed and sworn before me on this 28th day of April, 2020.

Stacy N. Patterson
Notary Public (Seal)



[Signature]
Signature of Owner

You may attach additional pages, if needed, to support the documentation of application.

Please note the number of pages attached. 1

FOR OFFICE USE ONLY

Case number ZA-316
Filing date 5-19-20
Hearing date 6-15-20
Filing fee \$ 100.00
Hearing time 7pm

Location of hearing
Village Hall
515 South Broadway
Coal City, Illinois



PLAT OF SURVEY

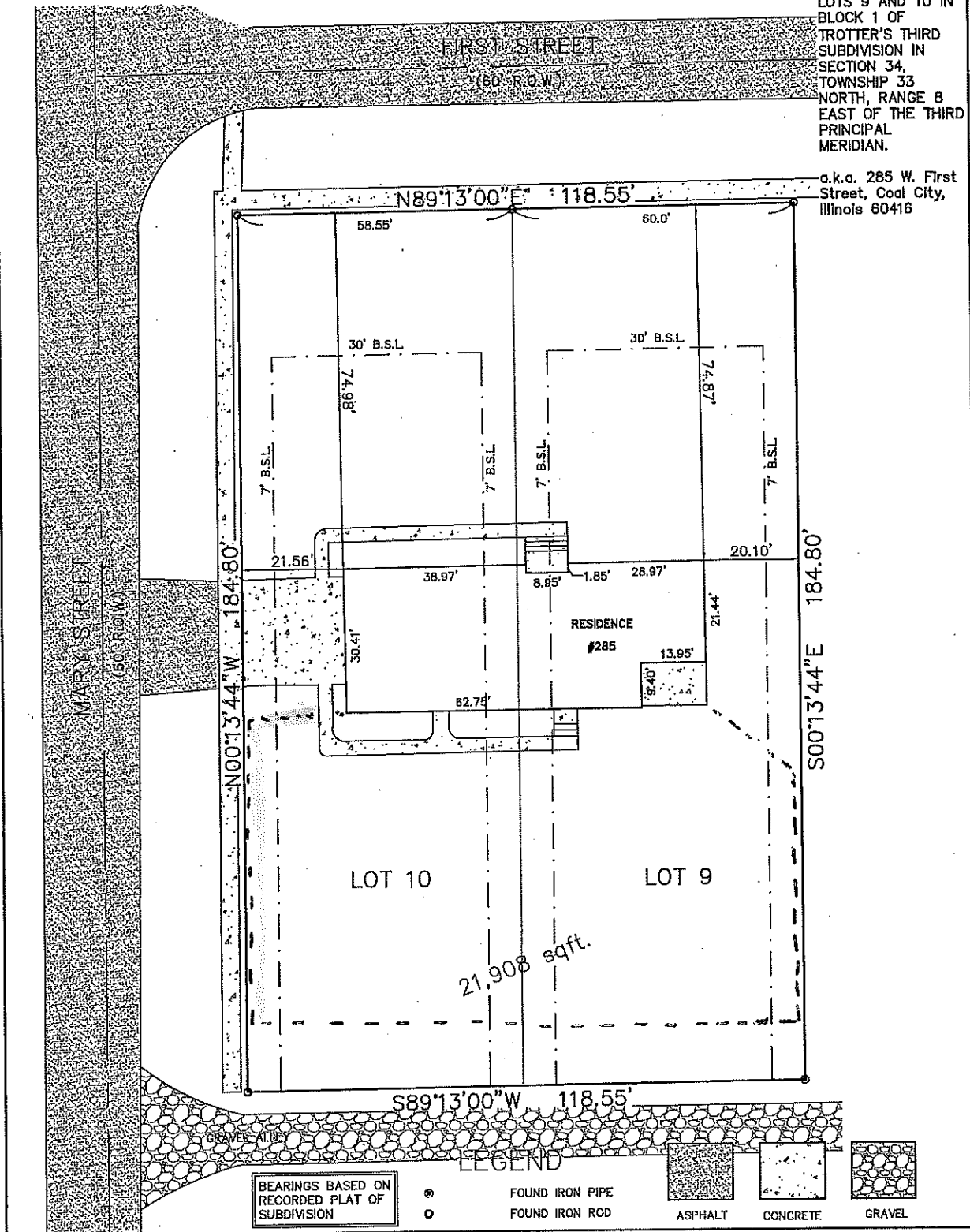
MORRISON SURVEYING CO., INC.

2710 N. IL. Rt. 47, Morris, Illinois 60450
Phone (815) 942-2620 of FAX (815) 941-2620



LOTS 9 AND 10 IN
BLOCK 1 OF
TROTTER'S THIRD
SUBDIVISION IN
SECTION 34,
TOWNSHIP 33
NORTH, RANGE 8
EAST OF THE THIRD
PRINCIPAL
MERIDIAN.

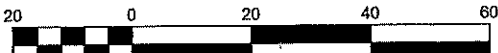
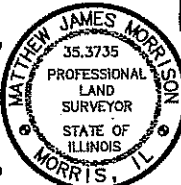
a.k.a. 285 W. First
Street, Coal City,
Illinois 60416



State of Illinois } s.s.
County of Grundy }

We, MORRISON SURVEYING CO INC., (PDF License #184-003915) do hereby certify that we have surveyed the property described in the caption to the plat hereon drawn and that this professional service conforms to the current Illinois minimum standards for a boundary survey. All dimensions are in feet and decimal parts of a foot and are correct at a temperature of 68 degrees Fahrenheit. Dimensions shown on buildings are to the outside of buildings. Given under my hand and seal at Morris, Illinois. Date: 12/17/18

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-3735 License Expires 11/30/20



Scale 1" = 20'

Compare All Dimensions Before Building And Report Any Discrepancies At Once. For Building Lines, Easements and other restrictions not shown hereon refer to your Deed, Title Policy, Zoning ordinance, ETC...

ORDERED BY: BLACK & BLACK LAWYERS
SCALE: 1" = 20' ORDER NO. 5388

AFFIDAVIT RE: NOTICE TO ADJOINING PROPERTY OWNERS

The undersigned, Ryan Wharrie, being first duly sworn on oath, deposes and states as follows, to wit:

1. That I am the applicant, or the agent for the applicant, in zoning case #ZA- 314, now pending before the Zoning Board of Appeals of the Village of Coal City, Illinois.
2. That with respect to said Zoning Case, and pursuant to requirement. I have notified all owners of property adjacent to the property in question, as to the date, time and place of the public hearing to be conducted by the said Zoning Board of Appeals; and in conjunction therewith, I have included with said notification a copy of the zoning application heretofore filed in this matter.
3. That said notification was given to all such adjoining property owners, by letter, a copy of which is attached hereto and made a part hereof, which letter was sent by Certified Mail Return Receipt Requested or in another type of form showing receipt thereof.
4. That, further said notification was effective at least fifteen (15) but not more than (30) days prior to the said public hearing.
5. Following, is a list of the names and addresses of all such adjoining property owners, all of whom have been notified in the manner aforesaid; and attached hereto are the certified mailing receipts, or another type of form, evidencing such notification:
Joanne Ulivi, 290 W. Division St • Anthony + Julie Jacovec 250 W. Division St.; Joel + Linda Micebich 250 W. Division St.; Terry + Carol Halliday 255 W. 1st St; Bill + Kelly Leopold 286 W. 1st St; Doris Giordano 210 W. 1st; Alan Price 80 N. Mary; Grunwalds 320 W. Div
6. That further notice was published in a newspaper of general circulation that is published in the Village at least fifteen (15) but not more than thirty (30) days before the scheduled date of the hearing and evidenced by a publishers certificate of publication a copy of which is attached hereto and made a part hereof.
7. In addition to the above requirements at least one sign was posted in the front yard of the affected property facing and visible from a public street and no further than thirty (30) feet from the right-of-way line.

RWH
Applicant
Agent for applicant

SUBSCRIBED and SWORN to before me, this 17th day of June, 2020

Jane E. Wills
Notary Public



THE VILLAGE OF COAL CITY
GRUNDY & WILL COUNTIES, ILLINOIS

ORDINANCE
NUMBER _____

**AN ORDINANCE GRANTING A VARIANCE TO THE ZONING CODE FOR THE
LOCATION OF A FENCE WITHIN THE CORNER SIDE YARD OF 285 WEST FIRST
STREET IN THE VILLAGE OF COAL CITY**

TERRY HALLIDAY, President
PAMELA M. NOFFSINGER, Village Clerk

SARAH BEACH
ROSS BRADLEY
TIM BRADLEY
DAN GREGGAIN
DAVID SPESIA
DAVID TOGLIATTI
Village Trustees

Published in pamphlet form by authority of the President and Board of Trustees of the Village of Coal City
on _____, 2020

ORDINANCE NO. _____

AN ORDINANCE GRANTING A VARIANCE TO THE ZONING CODE FOR THE LOCATION OF A FENCE WITHIN THE CORNER SIDE YARD OF 285 WEST FIRST STREET IN THE VILLAGE OF COAL CITY

WHEREAS, an application for variance from Section 156.171 of the Village of Coal City Zoning Code (“Zoning Code”) was filed by Ryan & Megan Wharrie (“applicant”) on May 19, 2020 for the placement of a 6 feet high fence; and

WHEREAS, Section 156.171(a)(2) states, “Fences shall be permitted in the rear or interior side yard...”; and

WHEREAS, a public hearing was noticed and duly held on June 15, 2020; and

WHEREAS, the Village of Coal City Planning and Zoning Board met on June 15, 2020, and considered passage of the variance request to the Board of Trustees; and

WHEREAS, Section 156.250 permits the Village Board to approve variations from the Zoning Code; and

WHEREAS, the Village Board of Trustees and the President of the Village of Coal City believe it is in the best interests of the Village to grant the requested variances.

NOW THEREFORE, BE IT ORDAINED by the President and Board of Trustees of the Village of Coal City, Grundy and Will Counties, Illinois, as follows:

Section 1. Recitals. The foregoing recitals shall be and are hereby incorporated into and made a part of this Ordinance as if fully set forth in this Section 1.

Section 2. Findings of Fact. The Board of Trustees find as follows:

A. **Special Circumstances Not Found Elsewhere.** The property is a corner lot and has a great deal of the open recreational area of the property contained within the corner side yard unlike a majority of the residential lots within the area.

B. **Unnecessary Hardship.** Being unable to utilize such a large portion of the residential lot for recreational space would cause an unnecessary hardship since the erection of a fence according to the petition would not interfere with vehicular traffic at the adjacent intersection.

- C. **Necessary for Use of the Property.** Being adjacent to DeWitte, the utilization of an unobtrusive fence within the corner side yard shall allow safe enjoyment of the corner side yard while allowing passersby to maintain unimpeded site angles.
- D. **Consistency with the Local Area and Comprehensive Plan.** Granting this variance is consistent with the principles provided in the Comprehensive Plan. The use shall stay residential and vision safety within the adjacent intersection shall be maintained.
- E. **Minimum Variance Recommended.** The petitioner has requested a variance to as to the placement of the fencing material, but its quality shall minimally impact the existing conditions since it is not opaque.

Section 3. Description of the Property. The property is located at 285 West First Street in the Village of Coal City within an RS-2 District.

Section 4. Public Hearing. A public hearing was advertised on May 30, 2020 in the Joliet Herald and held by the Planning and Zoning Board on June 15, 2020, at which time a majority of the Planning and Zoning Board members recommended passage of the Variance to the Board of Trustees.

Section 5. Variations. The variations requested in the May 19, 2020 Variance Application to the Zoning Code are granted as follows:

- A. A variance in conjunction with Section 156.171(a)(2) is hereby granted to allow the 6-ft. high fence as described by the applicant, to be installed within the corner side yard. Providing a minimum 1-foot setback (a variance of 24 feet).

Section 6. Conditions. The variances granted herein are contingent and subject to the following conditions:

- A. The fence shall be constructed in a manner consistent with the presentation to the Planning & Zoning Board and the Board of Trustees.

Section 7. Severability. In the event a court of competent jurisdiction finds this ordinance or any provision hereof to be invalid or unenforceable as applied, such finding shall not affect the validity of the remaining provisions of this ordinance and the application thereof to the greatest extent permitted by law.

**AN ORDINANCE GRANTING A VARIANCE TO THE ZONING CODE FOR THE LOCATION OF A
FENCE WITHIN THE CORNER SIDE YARD OF 285 WEST FIRST STREET IN THE VILLAGE OF
COAL CITY**

Section 8. Repeal and Savings Clause. All ordinances or parts of ordinances in conflict herewith are hereby repealed; provided, however, that nothing herein contained shall affect any rights, actions, or causes of action which shall have accrued to the Village of Coal City prior to the effective date of this ordinance.

Section 9. Effectiveness. This ordinance shall be in full force and effect from and after passage, approval and publication in pamphlet form as provided by law.

SO ORDAINED this _____ day of _____, 2020, at Coal City, Grundy & Will Counties, Illinois.

AYES:

NAYS:

ABSENT:

ABSTAIN:

VILLAGE OF COAL CITY

Terry Halliday, President

Attest:

Pamela M. Noffsinger, Clerk

MEMO

TO: Mayor Halliday and the Board of Trustees

FROM: Matthew T. Fritz
Village Administrator

MEETING

DATE: June 24, 2020

**RE: EXTENDING DOWNSTATE STABILIZATION GRANT PARTNERSHIP
WITH COAL CITY DENTAL CENTER**

There are quite a few business assistance packages that are being sponsored by different levels of government in response to the COVID-19 pandemic. One of the programs, which requires a partnership with a local municipality in order for the businesses to attain is the Downstate Stabilization Grant. This Illinois Department of Commerce and Economic Opportunity (DCEO) grant re-packages federal Community Development Block Grant funding (CDBG) to allow local businesses to access the lesser of 60 days of capital or \$25,000. These are grant dollars, which require a bunch of federal paperwork and reporting for the conduit municipality and involved a great deal of administration for which there is no reimbursement. However, these funds represent a grant and is not to be paid back. DCEO is reviewing the submissions and providing approval on a first come, first qualified basis. The Board already successfully partnered with Excaliber Gymnastics & Broadway Dance Center as well as completed applications with La Piazza Restorante the Broadway Family Dental Center. Recently, Dr. Trevison of the Coal City Dental Center has come forward to request a similar partnership allowing this dentist office to gain access to this unique program.

Attached is the invitation that went out to all businesses that are registered within the Village of Coal City. Following the public hearings for Dr. Trevison's application, the Village Board may consider a Resolution of Support during the Regular Board Meeting and then attaches the required paperwork and puts them before DCEO for consideration. Within one month's time decisions should be made and grant distributions determined; there are only \$8 million available across the entire State of Illinois. The Coal City Dental Center is a dental office within Coal City that originally closed in order to abide by the public health restrictions, but recently opened incorporating all of the Phase 3 requirements in order to operate safely. This application will be subject to a public hearing on Wednesday evening prior to the regular meeting at which time specific grant application will be discussed.

In order to meet the public hearing requirements, Wednesday's public hearing was advertised in the Herald and the Resolution included for consideration during this evening's Regular Board Meeting.

Recommendation:

Adopt Resolution No. _____: Supporting the Application & Partnership with Coal City Dental Center to Apply for \$25,000 of Downstate Stabilization Funding.

Coal City Economic Development Partner Application for

Illinois Downstate Small Business Stabilization Program

Federal Community Development Block Grant Funding administered by the Department of Commerce & Economic Opportunity (DCEO)

The Village of Coal City may apply for a grant to assist you with *an amount equal to 60 days of working capital for your business and may not exceed \$25,000*. Working capital expenses are *employee salaries, general operating expenses, inventory and advertising/marketing expenses; this grant may only be utilized for these items – no other activities are eligible*. Coal City must gather a great deal of information, abide by federal guidelines to ensure residents have heard of the intention of the Village Board to apply on your behalf, and then administer any funds that DCEO provides. In order to do so, please review this information and provide your response via email to mfritz@coalcity-il.gov **by the end of the day on Thursday April 9, 2020**. This is a quick turnaround, but the State of Illinois has provided a small amount of funding to be shared statewide; your ability to apply quickly will assist Coal City with gaining access to these federal funds on your behalf.

- Must employ 50 people or less, inclusive of the business owner(s)
- Must be a private, for-profit small retail and service businesses, or businesses considered non-essential by the Governor's Executive Order without the ability for employees to work remotely; if your business is considered an essential business that was allowed to stay open according to Governor Pritzker's Executive Order #10 (<https://www2.illinois.gov/Pages/Executive-Orders/ExecutiveOrder2020-10.aspx>) you are not eligible for this program.
- The business must reside within Coal City municipal borders or you are a business owner who resides in Coal City and your business is geographically located within a qualified area (the business cannot be located in Cook County or one of the collar counties [this includes Will County]).
- Must provide a completed checkoff list with completed materials & must complete the responses in order to complete the federal application
- Must have at least three verifiable years of operation and income, which means the business must have been up and running since 2017 and has end of year statements for 2017, 2018, & 2019

IL DCEO Downstate Small Business Stabilization Program

Coal City Application Preliminary Requirements

Applicant Name:

Amount Requested:

Email (to be utilized for the continual review of application materials):

Best Contact Phone Number:

Registered Name of Business:

Also Known in Coal City as:

Do you have a DUNS # (Y/N): If yes, provide it here:

Business Location (Address):

Business Owner(s) Home Residence Address:

APPLICATION CHECKOFF LIST

- I have read all of the 2020 Downstate Small Business Stabilization Program Guidebook and understand there are other additional requirements in addition to those required by the Village of Coal City to gauge interest in this program.
- Enclosed is my business' net income for the last three years ending December 31, 2019.
- Enclosed is a list of all employees as of January 1, 2020 along with any other employees hired since that time along with their current employment status.
- Most recent bank statement
- I have enclosed a completed Project Benefit Summary
- I have provided a Certificate of Good Standing from the Illinois Secretary of State (available online at <https://www.ilsos.gov/corporatellc/> ; this requires a payment to the State of Illinois)

IL DCEO Downstate Small Business Stabilization Program

Coal City Application Preliminary Requirements

PROJECT BENEFIT SUMMARY

There are three factors that shall determine if the State of Illinois will grant the federal funds available for your business. Please review the *National Objective*, for which these funds have been made available. After reviewing this, answer the three factors below.

National Objective – Urgent Need

The Urgent Need National Objective is defined as assistance to a business designed to alleviate existing conditions. The grant recipient certifies that such conditions pose a serious and immediate threat to the health or welfare of the community, they are of recent origin or recently became urgent, the grant recipient is unable to finance the activity on its own, and other sources of funds are not available. Applicant must demonstrate through information in the Project Summary, financial documentation and employee status that they meet this objective.

Factor #1 Project Need:

The inability of the company to maintain sufficient permanent funding to sustain normal operating working capital needs. Describe in sufficient detail the need for the assistance and the specific role of CDBG funding, including any other options which have been pursued. Evidence of need is demonstrated through a well-developed justification for public financing demonstrating a financial gap argument. The discussion should also address why other financing options could not be obtained or are not feasible and repercussions if funding is denied.

Complete your Answer Here –

Factor #2 Financial Feasibility:

A determination must be made as to how CDBG funds can address the company's need to provide adequate permanent working capital in addressing current and future working capital needs, like payroll, operating needs and short-term liabilities. A comparison must be provided as to the existing payroll that existed prior to the outbreak of the COVID-19 virus in January and current payroll. In addition to payroll, the effect of the COVID-19 virus on current and long-term liabilities.

Complete your Answer Here –

Factor #3 Commitments for Job Retention

Provide firm assurances from the borrower (employer) regarding the number of permanent jobs to be retained for low-to-moderate income persons, types of positions, not to exceed 12 months.

Complete your Answer Here –

RESOLUTION NO. _____

A RESOLUTION OF SUPPORT PARTNERING WITH COAL CITY DENTAL CENTER, LTD., A BUSINESS LOCATED WITHIN COAL CITY TO APPLY TO THE DEPARTMENT OF COMMERCE & ECONOMIC OPPORTUNITY (DCEO) FOR A DOWNSTATE STABILIZATION GRANT

WHEREAS, the Village of Coal City is applying to the State of Illinois for a Community Development Block Grant Program grant, and

WHEREAS, it is necessary that an application be made, and agreements entered with the State of Illinois.

NOW, THEREFORE, BE IT RESOLVED by the President and Board of Trustees of the Village of Coal City, Grundy County, as follows:

SECTION 1. SUPPORT FOR GRANT REQUEST. The Village of Coal City affirms its support for a Downstate Stabilization Grant being administered by the State of Illinois Department of Commerce and Economic Opportunity in partnership with Coal City Dental Center, Ltd. Furthermore:

- 1) that the Village of Coal City apply for a grant under the terms and conditions of the State of Illinois and shall enter in to and agree to the understandings and assurances contained in said application.
- 2) that Mayor Terry Halliday and Village Clerk Pam Noffsinger on behalf of the Village of Coal City execute such documents and all other documents necessary for the carrying out of said application.
- 3) that Mayor Terry Halliday and Village Clerk Pam Noffsinger are authorized to provide such additional information as may be required to accomplish the obtaining of such grant.

SECTION 2. AUTHORIZATION TO ENTER INTO PARTICIPATION AGREEMENT.

A specific requirement of this grant requires Coal City Dental Center, Ltd. and the Village of Coal City to enter into a Participation Agreement which sets forth the expectations and requirements for the business to perform which includes requisite reporting as required by the Village of Coal City and DCEO. This agreement has been attached (Attachment A) and reviewed; Mayor Halliday is authorized to enter into this agreement on behalf of the Village of Coal City.

SECTION 3. Effective Date. This Resolution shall be in full force and effect immediately from and after its passage and approval as provided by law.

SO RESOLVED this _____ day of _____, 2020, at Coal City, Grundy County, Illinois.

AYES:

NAYS:

ABSENT:

ABSTAIN:

VILLAGE OF COAL CITY

Terry Halliday, President

Attest:

Pamela M. Noffsinger, Clerk

PARTICIPATION AGREEMENT

THIS AGREEMENT is made as of the 24th day of June, 2020 by and between the Village of Coal City ("Unit of Local Government") and Coal City Dental Center, Ltd., (Benefiting "Business").

WHEREAS, the Unit of Local Government is interested in maintaining its economic base with the primary emphasis on retaining jobs.

WHEREAS, the Unit of Local Government has entered into an agreement with the Illinois Department of Commerce and Economic Opportunity to implement an economic development program that significantly impacts upon the Unit of Local Government's economic base; and

WHEREAS, the Business is interested in maintaining its employment base; and

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties agree as follows:

I. GENERAL DEFINITIONS

- 1.1 "Application" shall mean all materials submitted by the Business to the Unit of Local Government or the State of Illinois in connection with this Agreement.
- 1.2 "DCEO Funds" shall mean the sum of \$25,000 representing the grant received by the Unit of Local Government pursuant to its agreement with the Illinois Department of Commerce and Economic Opportunity (DCEO).

II. PERFORMANCE

- 2.1 The Unit of Local Government agrees, subject to the terms and conditions of this Agreement, to provide grant funds to the Business for the purpose of working capital.
- 2.2 Grant funds shall be paid with Community Development Block Grant funds through DCEO.
- 2.3 Business must remain open or reopen and retain or re-employ permanent jobs prior to the grant end date (one year from grant award).
- 2.4 In the event the Unit of Local Government fails to receive the DCEO funds, for any reason, this Agreement shall be terminated and the Unit of Local Government shall have no further obligation to disburse grant funds to the Company, at the sole option of the Unit of Local Government, without fault as to either party.

III. COVENANTS, REPRESENTATIONS AND WARRANTIES OF THE BUSINESS

3.1 On or prior to the date of this Agreement, all legal matters incident to this Agreement and the transactions contemplated hereby shall be satisfactory to the Unit of Local Government.

3.2 Business represents and warrants that:

(a) Business is a corporation duly formed, validly existing and in good standing under the laws of Illinois, is in good standing in all the jurisdictions in which the character of the property owned or leased or the nature of the business conducted by it requires such licensing or qualification and has all corporate powers and all material governmental licenses, authorizations, consents and approvals required to carry on its business as now conducted.

(b) The execution, delivery and performance by Business of this Agreement, are within Business's corporate powers, has been duly authorized by all necessary corporate action, requires no action by or in respect of, or filing with, any governmental body, agency or official and does not contravene any provision of applicable law or regulation or of the Articles of Incorporation or By-Laws of Business.

(c) This Agreement constitutes a valid and binding agreement of Business.

(d) The Application is in all respects true and accurate and there are no omissions or other facts or circumstances which may be material to this Agreement or the Project.

(e) The financial information delivered to Unit of Local Government pursuant to the Application fully and accurately present the financial condition of the Business. No material adverse change in the condition, financial or otherwise, of Business has occurred since the date of the financial statements most recently delivered to the Unit of Local Government.

(f) Neither Business nor, to the best of Business's knowledge, any of Business's managers, officers or employees have been convicted of bribing or attempting to bribe an officer or employee of the Unit of Local Government, nor has the Business made an admission of guilt of such conduct which is a matter of record.

(g) The warranties made herein by Business are made for the exclusive purpose of inducing the Unit of Local Government to enter into this Agreement and acknowledges that the Unit of Local Government's performance obligations hereunder are expressly conditioned upon the accuracy and continued accuracy of the statements set forth herein and Business' timely compliance with its obligations under this Agreement.

- 3.3 The Business shall keep detailed records of all matters related to this Agreement (including the Exhibits hereto). The Business shall provide to the Unit of Local Government promptly on demand all materials necessary for the Unit of Local Government to meet reporting and other requirements of this grant. The Business shall ensure continuing and regular access, at all times during the term of this Agreement, by the Village Administrator or his designee, for the purpose of reviewing and auditing their respective books and records related in any manner to this Agreement or Business' performance obligations thereunder.
- 3.4 The Business shall comply with all applicable state and federal law and regulations promulgated thereunder. Business shall comply with all applicable laws and regulations prohibiting discrimination on the basis of race, sex, religion, national origin, age or handicap, including but not limited to the Illinois Human Rights Act, as now or hereafter amended, and the Equal Employment Opportunity Clause promulgated pursuant thereto.
- 3.5 Business shall fully and completely indemnify, defend and hold harmless the Unit of Local Government and the State of Illinois and their officers, directors, employees and agents (cumulatively, "Indemnitees") against any liability, judgment, loss, cost, claim, damage (including consequential damage) or expense (including attorney's fees and disbursements, settlement costs, consultant fees, investigation and laboratory fees) to which any of them may become subject insofar as they may arise out of or are based upon this Agreement or any agreement or document executed by Business and Unit of Local Government as part of the transaction described herein. In case any such claim shall be made or action brought based upon any such claim in respect of which indemnity may be sought against the Business, upon receipt of notice in writing from an Indemnitee setting forth the particulars of such claim or action, the Business shall assume the defense thereof including the employment of counsel and the payment of all costs and expenses. The Indemnitees shall have the right to employ separate counsel in any such action and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of the Indemnitees.
- 3.6 The Unit of Local Government shall have the right of access, at all reasonable hours, to Business's premises and books and records for purpose of reviewing and auditing Business' operations, books and records or to determine compliance with this Agreement. In addition to the reporting specifically required hereunder, Business shall furnish to the Unit of Local Government such information as the Unit of Local Government may request with respect to this Agreement.

IV. DEFAULT AND REMEDIES

- 4.1 If one or more of the following events ("Defaults") occurs and is not timely cured to the satisfaction of the Unit of Local Government in its sole discretion within thirty (30) days of receiving written notice from the other party unless another time period is specified herein or in such written notice, then, the Unit of Local Government may declare Business in default under this Agreement and seek any of the enumerated remedies described in this Section.

(a) Business fails to observe or perform any covenant or agreement contained in this Agreement, including the Exhibits hereto, for 10 days after written notice to cure thereof has been given to Business by the Unit of Local Government;

(b) Any representation, warranty, certificate or statement made by Business in this Agreement, including the Exhibits hereto, or in any certificate, report, financial statement or other document delivered pursuant to this Agreement shall prove to have been incorrect when made in any material respect;

(c) Business shall commence a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, or shall consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or other proceeding commenced against it, or shall make a general assignment for the benefit of creditors, or shall fail generally to pay its debts as they become due, or shall take any corporate action to authorize any of the foregoing;

(d) An involuntary case or other proceeding shall be commenced against Business seeking liquidation, reorganization or other relief with respect to it or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, and such involuntary case or other proceedings shall remain undismissed and unstayed for a period of 60 days; or an order for relief shall be entered against Business under the federal bankruptcy laws as now or hereafter in effect;

(e) Business ceases the conduct of active trade or business at the location identified in the Unit of Local Government's application materials for any reason, including, but not limited to, fire or other casualty; and does not reopen prior to the end date of the grant agreement.

4.2 If a Default occurs and is not timely cured, then the Unit of Local Government may (i) terminate this Agreement; (ii) institute such proceedings as may be necessary or desirable in its opinion to cure or remedy such Default, including but not limited to, proceedings to compel specific performance by the Business; and (iii) seek reimbursement from the Business for all funds (including DCEO funds) expended by the Unit of Local Government on or related to the Project, including, but not limited to working capital, equipment, architectural engineering, construction, administrative, real estate and incidental costs related thereto (cumulatively, the "Reimbursable Sum").

- 4.3 Upon notice of a Default and if said Default is not timely cured, the Business shall be obligated to refund to the Unit of Local Government the Reimbursable Sum, which refund shall be due and payable within 30 days after the Unit of Local Government shall notifies the Business that reimbursement shall be made to the Unit of Local Government. If the Business fails to reimburse the Unit of Local Government within 30 days after the date of the notice, the Unit of Local Government shall have the right to collect interest on the unpaid balance beginning on the 31st day after notice at a rate equal to 12% per annum, plus all administrative or legal costs and expenses of any kind or nature related to the collection of such Reimbursable Sum.
- 4.4 If the Unit of Local Government is successful in any proceeding to enforce the terms of this Agreement, then the Unit of Local Government shall have the right to obtain from the Business, as an additional remedy, attorney fees, costs and expenses, related to the proceeding.

V. TERMINATION

- 5.1 This Agreement may be terminated at any time by written, mutual agreement of the parties, provided the Unit of Local Government has obtained written consent from the Illinois Department of Commerce and Economic Opportunity as to such termination.
- 5.2 This Agreement may be terminated by the Unit of Local Government whenever it issues a notice of Default to the Business and the Business does not timely cure the Default pursuant to Section IV.
- 5.3 This Agreement will terminate when the Project has been completed and when all of the terms and conditions of this Agreement (including the Exhibits thereto) creating duties upon the Business, have been satisfied by the Business.

VI. GENERAL PROVISIONS

- 6.1 Notice required hereunder shall be in writing and shall be deemed to have validly served, given or delivered upon deposit in the United States mail, by registered mail, return receipt requested, at the address set forth on the signature page hereof or to such other address as each party may specify for itself by like notice.
- 6.2 All covenants, agreements, representations and warranties made herein and, in the certificates, delivered pursuant hereto shall survive the execution of the Agreement and shall continue in full force and effect so long as the Agreement shall be in force.
- 6.3 No failure or delay by the Unit of Local Government in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or

partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by law.

- 6.4 Wherever possible each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision shall be invalid under applicable law, such provision shall be ineffective to the extent of such invalidity without invalidating the remaining provisions of this Agreement.
- 6.5 This Agreement represents the full and complete agreement between the parties with respect to the matters addressed herein and there are no oral agreements or understandings between the parties.
- 6.6 This Agreement shall be construed in accordance with and governed by the law of the State of Illinois and venue shall be in the Thirteenth Judicial Circuit, Grundy County, Illinois.
- 6.7 This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.
- 6.8 No modification of or waiver of any provision of this Agreement shall be effective unless the same shall be in writing and signed by the parties hereto, and provided further, that the Unit of Local Government shall obtain written consent of the Illinois Department of Commerce and Economic Opportunity prior to executing any such modification or waiver.
- 6.9 The Business certifies that it has not been barred from bidding on or receiving State contracts as a result of a violation of Section 33E-3 or 33E-4 of the Criminal Code of 1961 (bid rigging or bid rotating, respectively) (720 ILCS 5/33E-3 and 5/33-4).
- 6.10 The Business certifies that it has not been barred from being awarded a contract or subcontract under Section 50-5 of the Illinois Procurement (Code 30 ILCS 500).
- 6.11 The Business acknowledges that receipt of benefits under this agreement may require compliance with the Prevailing Wage Act (820 ILCS 130). Persons willfully failing to comply with or violating this act may be in violation of the Criminal Code. Questions concerning compliance with the Prevailing Wage Act should be directed to the Illinois Department of Labor.
- 6.12 The Unit of Local Government acknowledges that if the project as proposed by this Agreement is completed in accordance with this Agreement and the Agreement executed between the Unit of Local Government and the Department of Commerce and Economic Opportunity then the provisions cited above in 6.9; 6.10; and 6.11 do not apply to the Business but do apply to the activities to be completed by the Unit of Local Government.

IN WITNESS WHEREOF, the parties executed this Agreement the day and year first above written.

Coal City Dental Center, Ltd.

Village of Coal City

By: Robin Trevison, DMD
Its: Owner

Terry Halliday, Mayor

Address:
645 E. Division
Coal City, IL 60416

Address:
515 S. Broadway
Coal City, IL 60416

MEMO

TO: Mayor Halliday and the Board of Trustees

FROM: Matthew T. Fritz
Village Administrator

MEETING

DATE: June 24, 2020

**RE: ENGINEERING PAYMENTS TO CBBEL FOR S. BROADWAY
RECONSTRUCTION – INVOICES 10-12**

To date, the Village has paid for portions of the Phase 3 services provided by CBBEL for construction oversight on what has occurred on South Broadway. Illinois has slowly begun to reimburse the Village's payments with its first remittance reflecting invoices provided to the State prior to 2020 (for the completion of Phase 2 Engineering). This evening's payment of a portion of back invoices begins to clear up most of the remaining invoices the Village possesses. Following this payment, there will be two invoices remaining, which is expected to be brought to the Board for payment in July.

At this time, the Village should process an additional payment for Invoices 10-12 of the Phase 3 engineering. These payments for engineering services are made by the Village and then reimbursed 80% by IDOT (\$71,747.68) after payment is made to CBBEL. As mentioned, the State of Illinois has not paid any of the invoices related to previous construction oversight engineering payments. These invoices, which represents services provided through February 29, 2020 breaks down as provided below:

	Amount	%Completed (@ end of invoice period)
Previous Pays	\$281,685.55	.6821
Invoice #10	\$30,187.37	.0755
Invoice #11	25,202.63	.0750
Invoice #12	<u>34,294.60</u>	.0125
	\$89,684.60	.8451

Total Liability of State of IL portion - \$297,096.12

Following the Board's approval of this payment, the State of Illinois shall receive an invoice for its 80% contribution according to the terms of the Local Partner Agency Agreement.

Recommendation:

Approve payment for construction oversight services for Invoices 10-12 of \$89,684.60.

LOCAL AGENCY COST PLUS FIXED FEE INVOICE

Date: 01/17/20 Invoice No.: 10

To
 Village of Coal City
 Attention To
 Matthew Fritz, Village Administrator
 Address
 515 S. Broadway Street
 City State Zip Code
 Coal City IL 60416

From
 Christopher B. Burke Engineering, Ltd.
 Address
 Dept. 20-8051, P.O. Box 5998
 City State Zip Code
 Carol Stream IL 60197-5998

Local Public Agency: Village of Coal City County: Grundy Section Number: 14-00030-00-WR State Job No.: C-93-047-19 Project No.: QI4M(212)

For Professional Service performed as set forth in Agreement dated: 12/03/18 Consultant's Job No: 18-0462.0001A Overhead Rate: 129.05
 & Supplemental Agreement(s) dated: _____ FHWA Authorization Date: 12/03/18

1) Invoice Period From: 12/01/19 To: 12/31/19

- 2) Maximum Payable
- 3) Direct Salaries
- 4) QC/QA
- 5) Payroll & Overhead
 - this invoice 129.0500%
 - average 129.5705%
- 6.) Fixed Fee= 7.5527%
- 7) Direct Costs Prime
- 8) Services by others
 - Material Service Testing, Inc.
- 9) Total invoiced for project including this invoice
- 10) Previously Invoiced
- 11) Payment Due this invoice

	This Invoice	Previously Invoiced	Earned to Date	Max Allowable
				\$414,241.44
	\$11,146.30	\$102,315.58	\$113,461.88	\$137,494.00
		\$0.00	\$0.00	\$0.00
	\$14,384.30	\$132,628.83	\$147,013.13	\$178,384.72
	\$3,681.77	\$33,246.14	\$36,927.91	\$48,747.72
	\$975.00	\$10,075.00	\$11,050.00	\$19,955.00
	\$0.00	\$3,420.00	\$3,420.00	\$29,660.00
	\$0.00	\$0.00	\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00	\$0.00
			\$311,872.92	
		\$281,685.55		
	\$30,187.37			

I have reviewed the invoice and found it in compliance with "The simple Guide to Consultant Payments" published on the Consultant Engineering Sharepoint site. The percent of work shown as completed on this invoice matches the attached Progress Report signed by the project engineer.

Approved Local Public Agency Rep. _____ Date _____

I certify the costs included in this invoice have been expended and the percent of work shown as completed on this invoice is correct. As the prime consultant, work invoices included in this invoice for work done by others were reviewed and approved.

Consultant
 Christopher B. Burke Engineering, Ltd.
 By: *W. Daniel Cross* Date: 1/17/2020
 Name: W. Daniel Crosson, PE
 Title: Vice President, Head, Construction Engineering Dept

LOCAL AGENCY COST PLUS FIXED FEE INVOICE

Date 02/10/20 Invoice No. 11

To
Village of Coal City
 Attention To
Matthew Fritz, Village Administrator
 Address
515 S. Broadway Street
 City State Zip Code
Coal City IL 60416

From
Christopher B. Burke Engineering, Ltd.
 Address
Dept. 20-8051, P.O. Box 5998
 City State Zip Code
Carol Stream IL 60197-5998

Local Public Agency Village of Coal City County Grundy Section Number 14-00030-00-WR State Job No. C-93-047-19 Project No. QI4M(212)

For Professional Service performed as set forth in Agreement dated: 12/03/18 Consultant's Job No. 18-0462.0001A Overhead Rate 129.05
 & Supplemental Agreement(s) dated: _____ FHWA Authorization Date 12/03/18

1) Invoice Period	From:	To:	This Invoice	Previously Invoiced	Earned to Date	Max Allowable
	<u>01/01/20</u>	<u>01/25/20</u>				<u>\$414,241.44</u>
2) Maximum Payable						
3) Direct Salaries			<u>\$9,265.20</u>	<u>\$113,461.88</u>	<u>\$122,727.08</u>	<u>\$137,494.00</u>
4) QC/QA				<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
5) Payroll & Overhead						
this invoice <u>129.0500%</u>			<u>\$11,956.74</u>	<u>\$147,013.13</u>	<u>\$158,969.87</u>	<u>\$178,384.72</u>
average <u>129.5312%</u>						
6.) Fixed Fee= <u>7.4992%</u>			<u>\$3,655.69</u>	<u>\$36,927.91</u>	<u>\$40,583.60</u>	<u>\$48,747.72</u>
7) Direct Costs Prime			<u>\$325.00</u>	<u>\$11,050.00</u>	<u>\$11,375.00</u>	<u>\$19,955.00</u>
8) Services by others						
Material Service Testing, Inc.			<u>\$0.00</u>	<u>\$3,420.00</u>	<u>\$3,420.00</u>	<u>\$29,660.00</u>
			<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
			<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
9) Total invoiced for project including this invoice					<u>\$337,075.55</u>	
10) Previously Invoiced				<u>\$311,872.92</u>		
11) Payment Due this invoice			<u>\$25,202.63</u>			

I have reviewed the invoice and found it in compliance with "The simple Guide to Consultant Payments" published on the Consultant Engineering Sharepoint site. The percent of work shown as completed on this invoice matches the attached Progress Report signed by the project engineer.

Approved Local Public Agency Rep. _____ Date _____

I certify the costs included in this invoice have been expended and the percent of work shown as completed on this invoice is correct. As the prime consultant, work invoices included in this invoice for work done by others were reviewed and approved.

Consultant
Christopher B. Burke Engineering, Ltd.
 By W. Daniel Crosson Date 2/10/2020
 Name W. Daniel Crosson, PE
 Title Vice President, Head, Construction Engineering Dept

LOCAL AGENCY COST PLUS FIXED FEE INVOICE

Date 03/20/20 Invoice No. 12

To
Village of Coal City
 Attention To
Matthew Fritz, Village Administrator
 Address
515 S. Broadway Street
 City State Zip Code
Coal City IL 60416

From
Christopher Burke Engineering, Ltd.
 Address
Dept. 20-8051, P.O. Box 5998
 City State Zip Code
Carol Stream IL 60197-5998

Local Public Agency Village of Coal City County Grundy Section Number 14-00030-00-WR State Job No. C-93-047-19 Project No. QI4M(212)

For Professional Service performed as set forth in Agreement dated: 12/03/18 Consultant's Job No. 18-0462.0001A Overhead Rate 129.05
 & Supplemental Agreement(s) dated: FHWA Authorization Date 12/03/18

1) Invoice Period	From: 01/26/20	To: 02/29/20			
	This Invoice	Previously Invoiced	Earned to Date	Max Allowable	
2) Maximum Payable				\$414,241.44	
3) Direct Salaries	\$14,223.10	\$122,727.08	\$136,950.18	\$137,494.00	
4) QC/QA		\$0.00	\$0.00	\$0.00	
5) Payroll & Overhead					
this invoice 129.0500%	\$18,354.91	\$158,969.87	\$177,324.78	\$178,384.72	
average 129.4812%					
6.) Fixed Fee= 1.2546%	\$611.59	\$40,583.60	\$41,195.19	\$48,747.72	
7) Direct Costs Prime	\$1,105.00	\$11,375.00	\$12,480.00	\$19,955.00	
8) Services by others					
Material Service Testing, Inc.	\$0.00	\$3,420.00	\$3,420.00	\$29,660.00	
9) Total invoiced for project including this invoice			\$371,370.15		
10) Previously Invoiced		\$337,075.55			
11) Payment Due this invoice	\$34,294.60				

I have reviewed the invoice and found it agrees with the executed Engineering Agreement for this project. The percent of work shown as completed on this invoice matches the attached Progress Report signed by the project engineer.

Approved Local Public Agency Rep. Date

I certify the costs included in this invoice have been expended and the percent of work shown as completed on this invoice is correct. As the prime consultant, work invoices included in this invoice for work done by others were reviewed and approved.

Consultant
Christopher B. Burke Engineering, Ltd.
 By *W. Daniel Crosson* Date 3/20/2020
 Name
W. Daniel Crosson, PE
 Title
Vice President, Head, Construction Engineering Dept

MEMO

TO: Mayor Halliday and the Board of Trustees

FROM: Matthew T. Fritz
Village Administrator

MEETING

DATE: June 24, 2020

RE: FIRST PAYMENT FOR VALERIO CULVERT REPAIR

Valerio Road had been shut down awaiting the Village of Coal City to accumulate enough funds for the repair of the culvert beneath Valerio just to the east of the Eileen apartments. D Construction had been awarded the lowest responsible bidder for this project and has already substantially completed the work in order to be able to repave the roadway atop the new culvert.

Although the total awarded construction work exceeds \$100,000, Ryan Hansen is recommending providing the first payment for this project totaling \$93,645.82 with the remainder to be paid following final restoration of the area. The roadway already looks much better and has been reopened to traffic.

Recommendation:

Approve Payment #1 for the Valerio Road Culvert Replacement to D Construction for \$93,645.82.



221 West Washington Street • Morris, IL 60450
Phone 815.942.1402 • Fax 815.942.1471
morris@chamlin.com

June 19, 2020

Mayor Terry Halliday
Village of Coal City
515 South Broadway
Coal City, IL 60416

SUBJECT: Village of Coal City
Valerio Road Box Culvert

Pay Request #1

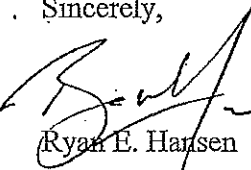
Dear Mayor Terry Halliday:

Chamlin & Associates, Inc. has reviewed and inspected the work by D Construction, Inc. All work performed has been completed in general compliance with Village standards and contract requirements.

Original Contract Amount:	\$	112,415.00
Completed Amount:	\$	98,574.55
Previous Payments:	\$	-
5% Retention	\$	4,928.73
	\$	<u>93,645.82</u>

Chamlin & Associates, Inc. at this time recommends a payment in the amount of \$93,645.82 be made to D Construction, Inc.

Sincerely,



Ryan E. Hansen

Enclosure

REH/hp

ENGINEER'S PAYMENT ESTIMATE

Estimate No. 1 Date June 19, 2020
 Payable to: D Construction, Inc.
1488 South Broadway
Coal City, IL 60416

Client Village of Coal City
515 South Broadway, Coal City, IL 60416
 Project Village of Coal City
Valerio Road Box Culvert

NO.	ITEMS	UNIT	AWARD		COMPLETED		
			QTY.	AMOUNT	QTY.	UNIT PRICE	TOTAL
1	Furnished Excavation	L SUM	1	\$ 14,850.00	1	\$14,850.00	\$ 14,850.00
2	Trench Backfill	CU YD	140	\$ 4,410.00	138.9	\$31.50	\$ 4,375.35
3	Landscape Restoration	L SUM	1	\$ 9,295.00		\$9,295.00	
4	Temporary Ditch Checks	FOOT	100	\$ 600.00	0	\$6.00	\$ -
5	Perimeter Erosion Barrier	FOOT	300	\$ 1,320.00	272.5	\$4.40	\$ 1,199.00
6	Inlet Filters	EACH	2	\$ 400.00	0	\$200.00	\$ -
7	Stone Rip Rap, B5	SQ YD	150	\$ 10,500.00	164	\$70.00	\$ 11,480.00
8	Aggregate Base Course Type B, 12"	SQ YD	200	\$ 3,080.00	138	\$15.40	\$ 2,125.20
9	Hot Mix Asphalt Surface Course, Mix D, N50	TON	20	\$ 2,080.00		\$104.00	
10	Hot Mix Asphalt Binder Course, IL-19.0, N50	TON	30	\$ 3,000.00		\$100.00	
11	Removal of Existing Structures	EACH	1	\$ 6,200.00	1	\$6,200.00	\$ 6,200.00
12	Pipe Culvert, Class C, Type 2, 72"	FOOT	120	\$ 33,960.00	120	\$283.00	\$ 33,960.00
13	Metal End Section, 12"	EACH	1	\$ 300.00	0	\$300.00	\$ -
14	Metal End Section, Double 72"	EACH	2	\$ 15,360.00	2	\$7,680.00	\$ 15,360.00
15	Storm Sewers, Class A, Type 2 15"	FOOT	15	\$ 810.00	0	\$54.00	\$ -
16	Storm Sewers, Class A, Type 2 18"	FOOT	30	\$ 1,950.00	0	\$65.00	\$ -
17	Precast Reinforced Concrete Flared End Section,	EACH	1	\$ 600.00	1	\$600.00	\$ 600.00
18	Storm Sewer Removal, 12"	FOOT	25	\$ 250.00	10	\$10.00	\$ 100.00
19	Storm Sewer Removal, 15"	FOOT	25	\$ 250.00	0	\$10.00	\$ -
20	Storm Sewer Removal, 18"	FOOT	50	\$ 500.00	5	\$10.00	\$ 50.00
21	Traffic Control and Protection	L SUM	1	\$ 500.00	1	\$500.00	\$ 500.00
22	Structures to be Adjusted with New Frame and	EACH	2	\$ 1,700.00	0	\$850.00	\$ -
23	Construction Layout	L SUM	1	\$ 500.00	1	\$500.00	\$ 500.00
24	Manhole 4'	EACH			2	\$2,000.00	\$ 4,000.00
25	Pipe Culvert, ADS, 15"	FOOT			65.5	\$50.00	\$ 3,275.00
TOTAL				\$ 112,415.00			\$ 98,574.55

By [Signature]
 Dated June 19, 2020



Morris, Ottawa, Peru
 Illinois

Total Value of Completed Work \$ 98,574.55
 Deduct 5% To Be Retained \$ 4,928.73
 Balance on Completed Work \$ 93,645.82
 Prev. Pay. Made to Contractor \$ -
 Net Amt. Due - This Estimate \$ 93,645.82

MEMO

TO: Mayor Halliday and the Board of Trustees

FROM: Matthew T. Fritz
Village Administrator

MEETING

DATE: June 24, 2020

**RE: FIRST PAYMENT TO CHAMLIN & ASSOCIATES FOR ADA
BATHROOM WORK AT LIONS/HOPE HELPS PARK**

Chamlin & Associates was hired in order to contract build ADA restroom facilities to comply within the DCEO requirements to replace the structure, which was demolished prior to the end of 2019. This project, which was intended to be completed by the end of the month, was granted an extension for its final completion. However, this request will expend 88% of the remaining funding available for this project. Underground was completed within the last two weeks with the flooring completed prior to this past week. Split face block began building upwards last week; roofing is expected soon.

Recommendation:

Approve Payment #1 for the ADA Washroom Improvements at the Lions Park/ Hope Helps Bathroom Project.



Chamlin & Associates
ENGINEERS • SURVEYORS • PLANNERS

221 West Washington Street • Morris, IL 60450
Phone 815.942.1402 • Fax 815.942.1471
morris@chamlin.com

June 19, 2020

Mayor Terry Halliday
Village of Coal City
515 South Broadway
Coal City, IL 60416

SUBJECT: Village of Coal City
Lions Park Restrooms
Pay Request #1

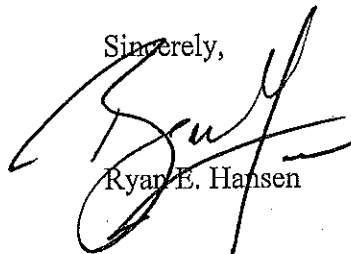
Dear Mayor Terry Halliday:

Chamlin & Associates, through its sub-contracting, has completed the items as shown on the attached schedule of values. All work has been completed per contract documents and work has received necessary Village of Coal City inspections.

Original Contract Amount:	\$	153,584.00
Completed Amount:	\$	81,653.75
Previous Payments:	\$	-
5% Retention	\$	4,082.69
	\$	<u>77,571.06</u>

Chamlin & Associates, Inc. at this time requests a payment in the amount of \$77,571.06 .

Sincerely,



Ryan E. Hansen

Enclosure

REH/hp

MEMO

TO: Mayor Halliday and the Board of Trustees

FROM: Matthew T. Fritz
Village Administrator

MEETING

DATE: June 24, 2020

RE: SANITARY TREATMENT CENTER EQUIPMENT MODERNIZATION

The Village of Coal City underwent the task over the last few years of comprehensively assessing its utility assets in order to optimize the operations of its water and sewer utilities and determine the total capacity to emerging economic development opportunities, which will likely need additional capacity. To this effort a 2019 Wastewater Treatment Expansion Plans Report was generated, which sets forth the best expenditures and order in which replacements should be made in what scope in order to modernize the existing facility and possibly upgrade its overall capacity.

Since receiving this report, it has been utilized in order to track funding opportunities and identify the best means of moving forward. With the State of Illinois continuing to leverage shovel ready projects for its communities, it is timely to replace the screening mechanisms (i.e. renovate the Huber Room including new equipment) and replace the existing blowers involved in the aeration process with a more energy efficient model, which will save the Village additional operational expenses year over year. Attached is the Executive Summary from the 2019 Report.

These improvements would overhaul some aging equipment and replace some of the capital needs identified within the report. While this improvement does not increase the capacity of the Sanitary Treatment Plant, it has been discovered it could be upgraded to handle additional capacity of necessary. Prior to bidding and making these improvements, IEPA permits must be filed and attained in order to gain the necessary permission to complete the work. Chamlin has provided a quote of \$10,000 to complete these filings since so much research has already been completed.

In addition, the Village anticipates submitting this modernization project to DCEO as its "ReBUILD Illinois Competitive Public Infrastructure Component," which requires such permits to be submitted in order to compete with all of the other submissions across the State of Illinois. Money has already been accumulated within Fund #33 – Sanitary Sewer Impact, for this type of work.

Recommendation:

Approve an amount not to exceed of \$10,000 for Chamlin Engineering to file IEPA permitting for Certain Sanitary Treatment Equipment.



4152 Progress Boulevard • Peru, IL 61354
Phone 815.223.3344 • Fax 815.223.3348
peru@chamlin.com

June 19, 2020

Village of Coal City
515 South Broadway
Coal City, IL 60416

ATTENTION: Matt Fritz, Village Administrator
SUBJECT: IEPA Permit Submittal for WWTP Projects

Dear Matt:

As we discussed, I understand you would like for us to provide an IEPA construction permit application to install the screening and some new blowers at the WWTP.

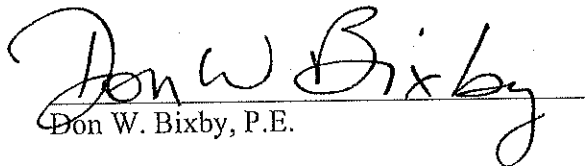
I believe we can provide the necessary design drawings, specifications, and permit application for a not-to-exceed price of \$10,000.

This provided work will allow you to say in your grant application that, in fact, you do have an IEPA permit application filed for the work. If the grant is successful or, on whatever basis, you wish us to proceed to a full-scale and biddable design, there would be more work required. However, the current work will provide design for the key elements of concern to the IEPA, which I believe would be our immediate concern.

If you wish us to proceed with this work, please sign below and return a copy to us.

Sincerely,

CHAMLIN & ASSOCIATES, INC.


Don W. Bixby, P.E.

DWB:law

Cc: File No. 05843.00

ACCEPTED BY:

Signature

Printed Name & Title

Date

VILLAGE OF COAL CITY, ILLINOIS



WASTEWATER TREATMENT
EXPANSION PLANS

JUNE, 2019

PREPARED BY
CHAMLIN & ASSOCIATES, INC.
PERU OTTAWA MORRIS
ILLINOIS

VILLAGE OF COAL CITY, ILLINOIS
WASTEWATER TREATMENT EXPANSION PLANS

EXECUTIVE SUMMARY

1. Existing Permit Limits:
 - 0.725 MGD average daily flow
 - 1.750 MGD maximum daily flow
2. Capacities of Existing Facilities:
 - a. See Table on Page 4.
 - b. Note advantage of excess flow lagoon.
3. Urgently Needed Upgrades:
 - a. New influent screen
 - b. Sludge press
4. Expansion Options
 - a. 0.95 MGD re-rating \$ 50,000
 - b. 0.95 MGD with BNR improvements \$ 3,100,000
 - c. 1.5 MGD with BNR improvements \$ 3,200,000
 - d. 1.5 MGD and C-A wastewater \$ 5,500,000
 - e. 3.0 MGD \$15,000,000
5. Recommendations
 - a. Replace influent screening \$ 530,000
 - b. Re-rate to 0.95 MGD \$ 50,000
 - c. Install sludge press \$ 1,700,000
 - d. Authorize design permitting of 1.5 MGD plant and consider C-A \$215,000-275,000
 - e. For expansions >1.5 MGD, proceed on basis of actual development
 - f. Consider proceeding immediately with various needed Improvements; total rough budget \$ 500,000
 - i. Clarifier painting
 - ii. Control system
 - iii. Digester supernatant with drawl improvements
 - iv. Improved lab equipment/space/additional personnel
 - v. Flooring improvements
 - vi. Raw sewage piping to PVC; grating to FRP
 - vii. Driveway

VILLAGE OF COAL CITY, ILLINOIS
WASTEWATER TREATMENT EXPANSION PLANS
MAY 2019

INTRODUCTION

The Village of Coal City, Illinois is located in southeastern Grundy County, just 1.5 miles off the I-55 corridor and, as such, is in position to see significant development in the very near future.

That said, the Village wishes to evaluate their existing wastewater treatment facility to gain a better understanding of its current condition and capacity, and then to look ahead and plan for orderly steps of expansion in the future.

This study has been undertaken in the hopes of providing a reasonable and financially feasible roadmap for the Village's development, as they would seek to invite growth both in industry and commerce, and in residential development.

EXISTING FACILITIES

NPDES LIMITS

The Village of Coal City is currently served by a wastewater treatment plant (WWTP) regulated by NPDES Permit No. IL0028151 (included as Appendix A). This permit allows for a Design Average Flow (DAF) of 0.725 MGD and a Design Maximum Flow (DMF) of 1.750 MGD. Along with CBOD₅, TSS, and pH, the plant also must comply with seasonal ammonia-nitrogen (NH₃-N) and dissolved oxygen (DO) limits. The permit currently does not require disinfection, nor does it include limits for total phosphorus (TP) or total nitrogen (TN).

REVIEW OF EXISTING FACILITIES

The WWTP was built in 2001 and designed to operate in an extended aeration mode of the activated sludge process (see Figures 1 and 2 for an aerial view of the plant and a flow diagram). Waste sludge is processed in one of two aerobic digesters and from there stored in a sludge storage lagoon for what has usually been land-application disposal. High radium content in the sludge has recently required the Village to resort to contract dewatering and landfill disposal.

Influent and effluent data for the last two years is presented in Table 1. The plant maintains a perfect record meeting BOD and TSS limits but does see occasional NH₃-N excursions.

Having been built in 2001, much of the equipment in the plant is approaching the end of its useful life. Of particular concern would be the influent screening system and the aeration blowers. The clarifiers will also bear watching, since they run continuously.

The plant currently is not connected to the Village SCADA system and includes few controls or monitoring devices. Operation is to a large extent manual, which has served the Village sufficiently up to this point.

The plant was designed to receive a BOD of 180 mg/l in the 0.725 MGD DAF, which is equivalent to 1,088 lbs./day BOD. In reality, over the last five years, the average loadings have been less than half that amount. Table 2 presents the influent BOD data for the last five years, showing a long-term arithmetic average of only 81 mg/l, with a standard deviation of only 22.6 mg/l and a geometric mean of 78.2 mg/l, all indicating significant consistency. Combined with an average influent flow of about 0.652 MGD, the plant only sees a loading of 440 lbs./day BOD compared to the original design of 1,088. Given the standard deviation of 22.6 mg/l, a reasonable design concentration would be 81 mg/l + 22.6 mg/l = 104 mg/l BOD, or 100 mg/l as a good design standard.

Although the 0.652 MGD seems perilously close to the NPDES DAF of 0.725 MGD, it is actually not a concern for two reasons: The IEPA only looks at dry weather flows when calculating the average and, as such, would probably call the plant's current average at just under 0.5 MGD; in addition, the actual hydraulic capacity of the plant is considerably greater than the 0.725/1.75 NPDES rating.

Hydraulically, a plant is primarily limited by the capacity of its influent screening, its raw sewage pumps, and the size of the final clarifiers. In fact, the installed screen has a capacity of 4.2 MGD, the raw sewage pumps can move 4.1 MGD, and the existing clarifiers could handle slightly over 1.5 MGD. The other hydraulic limitation is that the State requires an average detention time of at least 8 hours in the aeration tanks. Given the existing size of the plant's aeration tanks, they could handle an average flow of 2.0 MGD.

The plant's BOD capacity is also limited by State standards regarding the size of the aeration tanks. Depending on the specific designation of the plant it could be restricted to a BOD loading of not more than 50 lbs./day BOD per 1,000 ft³ of tankage. In this case, the limit would be nearly 5,000 lbs./day.

The BOD capacity is also limited by the maximum amount of air which can be provided through the available diffuser heads in the bottoms of the aeration tanks. To the BOD load must be added the oxygen demand incurred by nitrification, the conversion of NH₃-N to nitrate-nitrogen (NO₃-N). Based on an assumed influent total nitrogen concentration of 24 mg/l, the existing diffusers can handle their design average of 1,088 lbs./day BOD. At the current average of around 80 mg/l BOD, this equates to about 1.5 MGD, although using a reasonable design BOD of 100 mg/l, the DAF would be only 1.25 MGD.

This aeration is also dependent on the capacity of the plant's blowers. The existing blowers are used not only for aeration but also for mixing and aerating of the aerobic digesters. If the blowers must also be used with the digesters, the existing units are only acceptable up to 0.975 MGD at 100 mg/l BOD.

The two aerobic digesters each have a volume of 24,714 ft³ for a total volume of 49,428 ft³. For an extended aeration plant, State standards require a digester tank volume of 3.0 ft³ per 0.17 lb. BOD, which is then reduced by 25% to allow for decanting of supernatant. As the plant expands and moves into a regular complete mix activated sludge mode, the State standard increases to 4.5

ft³ per 0.17 lb. BOD. Even at the higher standard and using an influent BOD of 100 mg/l, the existing digesters are good up to nearly 1.8 MGD.

As for the return sludge pumps, typical design provides the return sludge flow rate at a 1:1 ratio with the influent. The existing pumps can provide that ratio up to a 0.950 MGD expansion and can be easily upgraded to meet a 1.5 MGD flow. For expansions beyond 1.5 MGD, new pumps will need to be provided. See further discussion below.

CONCLUSIONS REGARDING EXISTING FACILITIES

To summarize the capacities of the existing facilities:

CAPACITIES OF EXISTING FACILITIES

	Influent BOD mg/l	Daily Avg. Flow MGD	Daily Max. Flow MGD
Current NPDES Design	180	1,088	1.75
Current Loadings	88	479	2.61
Influent Screenings	--	--	4.2
Raw Sewage Pumps	--	--	4.1
Clarifiers	--	--	--
Aeration Tanks Hydraulic Capacity	--	--	~1.6
Aeration Tanks BOD Capacity	--	5,000	2.0
Blowers	100	813	0.975
Aerobic Diffusers	100	1,088	1.3
Return Sludge Pumps at 1:1	--	1,494	1.79
	--	--	0.95

Based on the plant's current loadings, its first significant bottleneck is the blowers, followed by the aeration diffuser system. The plant as it is sits today could feasibly be re-rated as a 1.5 MGD plant if only the aeration system was up-sized. Specifically, the aeration diffuser grid needs more diffuser heads. The return sludge pumps would need slightly larger impellers and one additional pump installed as a backup to provide a 1:1 flow at 1.5 MGD (see later discussion).

This matter will be discussed later but suffice it to say at this point that any upgrade of the aeration system can easily become a major energy saving endeavor. Electrical usage at the facility could be reduced significantly, offering savings in regular operating costs. In addition, grants are available from ComEd and possibly from the State which would offer some reduction of total project costs.

Such an energy focused project could include:

1. Turbo blowers on VFD's with a DO (dissolved oxygen) and/or ORP (oxidation reduction potential) control system in place (including SCADA connection to maximize operator interface and controls).
2. New, more efficient diffuser system.

3. Floating mixer/aerator units in the digesters with VFDs and DO/ORP control.
4. BNR (biological nutrient removal) installation to recover used oxygen and further reduce required blower HP.
5. LED lighting throughout the plant.

As discussed above, beyond 0.95 MGD, relatively minor upgrades of the return sludge pumps will also be necessary, but by implementing these energy saving improvements, the plant could very likely be re-rated to 1.5 MGD, or some intermediate rating, if so desired.

It should also be noted that the influent screens are aging and should be replaced, which may (or should) also see higher efficiency motors and possibly additional energy grant compensations.

Also, the existing plant would be well served to install a sludge press of its own, so as not to be dependent on contract dewatering and disposal.

Currently the plant has been granted a disinfection exemption. At any time, the State may retract that exemption and force the plant to install disinfection equipment. Recommended equipment will be presented later in this report.

UPGRADE AND EXPANSION OPTIONS

OVERALL APPROACH

A computer model for the Coal City WWTP was constructed to allow the evaluation of various BOD and flow loadings. In addition, the model allowed the incorporation of various improvements. A printout from the model is included as Appendix B.

In summary, it was determined that, with aeration improvements, return sludge pump upgrades, and BNR conversion, the existing facility could have a rated capacity of 1.5 MGD. By installing floating media (to be discussed later) in the aeration tanks, it is possible to see the existing facility rated up to 3.0 MGD, although this would require two (2) additional clarifiers, more aerobic digesters, and a major upgrade of the return sludge pumps. Addition of media will be the considered plan to go from 1.5 MGD to 3.0. The alternative would be to build the mirror image tankage of the original expansion plan. However, as will be discussed later, the concrete alone will cost the same as the media. By the time piping, diffuser grids, etc. are included, the media is a much cheaper option.

Obviously, should the Village desire to expand to as much as 6.0 MGD, the planned mirror-image plant could be constructed, along with the necessary clarifier(s) and digestion. See Figure 3 for the planned layout. The problem with discussions this far out is that so much depends on the BOD loadings associated (or not) with increased flows, the timing of needed expansions, funding availability, constantly changing State regulations, and a variety of other factors.

That said, and since the jump from 3.0 to 6.0 MGD is basically a mirror-image, this report will specifically consider the various features and options associated with the expansions up to the 3.0 MGD and reasonable steps in between, along with needed upgrades.

BNR CONVERSIONS

As the Village would look ahead to expansion, one very significant factor is that any design flows of 1.0 MGD or greater are now required to include the removal of phosphorus down to a concentration of 0.5 mg/l. The plant was not designed in any way to address phosphorus as that has not been in the past a pollutant of concern. In fact, the phosphorus limits are only now being mandated by the State, but their position is that all plants of 1.0 MGD or greater will have to address phosphorus.

This requirement moves the plant to not only expand but also to design that expansion in consideration of the new limits. The limits will involve converting the plant to a biological nutrient removal (BNR) mode of operation. Figure 4 shows the layout of such a conversion which can be accommodated within the existing tankage.

The following is a (very) brief explanation of the BNR process: Looking at the layout in Figure 4, the head ends of the aeration tanks have been partitioned into two (2) small zones - anaerobic and anoxic tanks. The return sludge and influent waste already flow into the head of the aeration tanks. Now they will first go in the anaerobic tank. In this tank, only mixing is provided, so the waste turns slightly septic. As it turns out, having allowed the waste to turn somewhat septic, as the waste passes on into the anoxic tank, the bacteria consume a much greater percentage of the phosphorus, as compared to typical activated sludge design.

Normally in the aeration tank, all of the $\text{NH}_3\text{-N}$ is converted to $\text{NO}_3\text{-N}$ as it passes to the end. With BNR, it is desirable to also take out the $\text{NO}_3\text{-N}$. A recycle pump at a rate of about two (2) times the influent flow picks up the $\text{NO}_3\text{-N}$ rich liquid and pumps it back to the anoxic tank. While there, bacteria strip the oxygens off the $\text{NO}_3\text{-N}$ and turns it into nitrogen gas which naturally and harmlessly vents itself to the atmosphere (already 78% nitrogen). The result of introducing these two (2) small tanks is a significant reduction of both phosphorus and nitrogen.

When it is desired to reduce phosphorus, it is helpful to also reduce the $\text{NO}_3\text{-N}$, as it interferes with the phosphorus removal step. Also, even though the State is not yet regulating nitrogen, that will logically be the next pollutant they will be addressing. In addition, the inclusion of complete BRN, both nitrogen and phosphorus removal, buys the Village an additional five (5) years before the phosphorus limits will actually be enforced.

It may also be worthwhile to explain at this point that an aeration reduction in BNR is accomplished by recycling the $\text{NO}_3\text{-N}$ rich liquid. Whatever oxygen the bacteria strip off the $\text{NO}_3\text{-N}$ is a reduction in oxygen which will have to be supplied by the aeration system. Bacteria consume about 1.2 lbs. O_2 per lb. BOD, but they recover 2.86 lbs. O_2 per pound $\text{NO}_3\text{-N}$ reduced to nitrogen gas.

3.0 MGD EXPANSION

As was discussed above, the existing plant could be re-rated to 1.5 MGD simply by completing an aeration/digestion system upgrade and adding the BNR improvements, along with up-sizing of the return sludge pumps. Beyond 1.5 MGD, the design is beginning to push the limits of what the IERPA will allow for a normal activated sludge process.

05824.00/05-2019

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There is the potential to push the existing tankage on up to a 3.0 MGD plant by the addition of media to the aeration tanks. This could be in the form of either plastic media, referred to as an Integrated Fixed Film Activated Sludge (IFAS) process (see information for an IFAS system in Appendix C); or in the form of a material looking somewhat like finely ground wood chips called "kenaf" or a Mobile Organic Biofilm (MOB) process (see information on the MOB process in Appendix D).

In either case, activated sludge aeration tanks are changed from what is called "suspended growth" (where the bacteria simply float around in the liquid) to the "attached growth" (where a considerable portion of the biomass is allowed to grow on the media). In layman's terms, it turns out that the bacteria are much happier if they have something to grow on and as a result, a given tankage can provide much more BOD and nitrogen removal if some kind of floating media is provided.

The costs of the media are similar, but the MOB process has the advantage that the fine kenaf particles simply become a part of the plant's active solids. The bacteria grow on the kenaf, forming what appear to be granules, which then not only enhance treatment capacity but also are reported to improve sludge settleability, possibly improving clarification and reducing the size and number of clarifiers required.

For the kenaf (MOB process), the only screening required is on the waste sludge line, where the kenaf-formed granules are kept in the system while suspended sludge solids pass through and go to digestion and dewatering.

The plastic media of the IFAS process must be screened on the overflow end of the aeration tanks and kept in the tanks. If it is ever desirable to work on the diffusers in the bottom of the aeration tanks, the plastic media must be physically removed. Since the kenaf goes wherever the mixed liquor goes, it presents no obstacle to diffuser maintenance.

Based on a DAF of 3.0 MGD with a BOD of 220 mg/l, about 2,500 SCFM of blower capacity will be required. As it turns out, this is the maximum amount of air which can be provided given the floor space of the aeration tankage. This can be observed in the Aquarius aeration system evaluation in Appendix E.

In addition, in order to achieve a 3.0 MGD DAF, more clarifiers, more digesters, more blower capacity, and more sludge handling equipment must be provided, both as return sludge and as dewatering equipment.

It should be noted that any expansion between 1.5 MGD and 3.0 MGD could be considered. However, only by adding media can the existing plant be rated over 1.5 MGD. How far above 1.5 MGD the Village wishes to go will affect other considerations along the way and also depends on the actual combination of design flow and BOD.

05824.00/05-2019

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1.5 MGD EXPANSION

As discussed above, the plant, as it currently exists, could be re-rated to a 1.5 MGD plant. In order to accomplish this, the aeration system must be upgraded and the BNR conversion must be included. In addition, the return sludge pumps will need to be upsized.

Knowing that the plant could ultimately be upgraded to a 3.0 MGD plant, the features included in a 1.5 MGD expansion should be designed with an eye toward that ultimate expansion. Of particular interest will be the diffuser grid in the aeration tanks. In order to supply the air-needed at 1.5 MGD, a grid could be installed with sockets already in place to receive additional diffuser heads when ready to move up to the 3.0 MGD. If all the heads were initially installed, they would be so under loaded at 1.5 MGD that they would not operate efficiently. However, by providing all the needed sockets (and strategically plugging the ones needed later), an entirely new grid system would not be required for later expansions.

The current return sludge pumps will need to be upgraded and a fourth added to provide the total 1.5 MGD flow rate at a 1:1 ratio with the design influent.

Also, with an eye toward ultimate expansion, the selection of blower sizes, dewatering equipment, floor layouts, etc., should always be considered. The sizes and number of clarifiers can also be selected for current designs while keeping future expansion in mind.

0.95 MGD EXPANSION

It may be of value to the Village to consider an expansion to only 0.95 MGD. This would essentially be the maximum expansion which could be undertaken without moving into what the State calls a "major" discharger's permit. At 1.0 MGD or over, the Village moves into this "major" category where the annual fees are higher, more testing is required, and, most significantly, the BNR improvements will be required.

Obviously, even this small expansion would need to be designed in light of further expansions. The BNR improvements would not be required but it would be unwise to design any improvements without considering them. Of particular concern would be the question of whether or not to add the BNR partition walls and then to consider those effects on the diffuser grid layout. Also, of considerable importance would be the sizing of the blowers and dewatering equipment and building layouts with room allowed for the further expansions. The return sludge pumps would not have to be upgraded for this small expansion.

It would be possible to provide all the necessary equipment and conversions for the 1.5 MGD plant with all necessary BNR features, but only request a plant rating of 0.95 MGD. Then, when it is desirable to expand, it would only be a matter of re-rating with the State.

EXCESS FLOW

One major advantage the Village enjoys is that there is already an excess flow lagoon on the property. This feature will allow the Village to minimize the difference between the NPDES DAF and DMF. Just for example, another plant in the area has a DAF of 2.5 MGD, but their

DMF is 8.1 MGD, over three (3) times higher. The DMF affects sizing of screening, raw sewage pumps, clarification, and potentially disinfection (if it was required). By having an excess flow lagoon, Coal City currently has a DAF of 0.725 MGD, with a DMF of only 1.75 MGD, just over two (2) times higher. As expansions are proposed, the presence of this excess flow lagoon will allow the Village to keep the DMF's within reasonable ranges, and thus avoid having to install much larger equipment just to handle those occasional peaks.

As stated above, the current screening system is rated for 4.2 MGD and the raw sewage pumps for 4.1 MGD. The existing screen is aging and could be replaced with a new screen system with a rating of 8.25 MGD (discussed below), simply by changing out the old equipment. In order to increase the raw sewage pump capacity, larger raw sewage pumps would have to be provided.

It is advisable to replace the aged screen regardless of expansion plans but the greater capacity of a new one would satisfy even ultimate design flow needs. Raw sewage pump upgrades should only be considered if necessitated by expansion. However, because the Village has an excess flow lagoon, not a lot of thought has been given to the DMF's associated with the expansions.

RECOMMENDED EXPANSION AND UPGRADE IMPROVEMENTS

The following table summarizes the various process requirements involved in each expansion option:

PROCESS REQUIREMENTS FOR EXPANSIONS

EXPANSION		BLOWER				RETURN SLUDGE		DIGESTERS		SLUDGE PRESS	
DAF MGD	mg/l BOD	# Req'd Diffusers	Existing	Existing SCFM	Blowdown GPM	Existing	Existing	Clarifiers	Digesters	Flow Rate GPM	Solids Load lbs./hr.
0.95	100	Existing	Existing	Existing	Existing	Existing	Existing	2	2	12	132
1.5	100	576	974	974	1,042	1,042	1,042	2	2	19	209
3.0	220*	1,792	2,715	2,715	2,084	2,084	2,084	3	8	83	917

*Note that, for the 3.0 MGD expansion, a BOD of 220-mg/l has been assumed. Although the Village has historically seen BOD's of less than 100.0 mg/l, it is unlikely that future development will remain that low. Typical municipal sewage is closer to 200 mg/l and the introduction of commercial or industrial wastes can often push it higher. For the sake of projection into the future, it is recommended we assume more typical values. Also, a flow of 3.0 MGD with a BOD of 220 mg/l will essentially "max out" the organic treatment which can be provided in the existing tankage due to the limitations of aeration diffusers and their closest allowable spacing (see next section for discussion).

DIFFUSERS

Based on recommendations from Aquarius Technologies (Appendix E), the 3.0 MGD option maximizes the number of diffusers which can be installed in the bottom square footage of the existing tankage. Therefore, it is recommended that the Village install a grid system capable of receiving the full 1,792 diffusers which would be required for the 3.0 MGD expansion, then install plugs in sockets of diffusers not needed for lesser expansions. In this way, as the plant expands the only requirement will be to add diffusers to existing sockets, but the grid system itself will not need to be changed.

It may also be advantageous to install the grid within the aeration tanks as a two-stage system, allowing more air to be provided at the front of the tank where the BOD and NH₃-N are first introduced, then providing less at the other end where less air is required. This can be controlled by adding DO/ORP probes and modulating valves on the grid system drop pipes. The control system is discussed below.

DIGESTER MIXING SYSTEMS

The plant currently uses the aeration blowers to mix the aerobic digesters. This is extremely inefficient. The digesters require very little air. It is much more efficient to install mixers which also have small blowers to add needed air. Aeration Industries International offers such a unit which would be an ideal choice for this application (see literature in Appendix F.) This improvement is highly recommended, not only for the sake of efficiency but also because it significantly reduces the size of the blowers required by the State. In the existing plant, about 75% of the 225 horsepower (HP) provided as blowers is only there to meet the State's requirements for digester mixing. By separating the digesters from the aeration system, only ¼ of the blower capacity and HP is required. The total HP required to operate the recommended digester mixer/blower units is only about 12 HP per tank.

BLOWERS

In the 1.5 or 3.0 MGD expansions, and having separated the digesters from the aeration system, the SCFM shown in the table above are the actual requirements. The 3.0 MGD option will require 2,715 SCFM. This could be satisfied by installing four (4) 1,000 SCFM blowers (design requirements always assume one of the blowers is out of service).

For 1.5 MGD option, two (2) of these blowers could be provided, leaving space for the other two future additions. The blowers should be turbo blowers with VFDs. These are most efficient, and the turbo blowers have a very wide turn-down with the VFDs, to provide maximum control flexibility. Refer to Appendix G for literature regarding such blowers provided by Innovair Corporation.

CONTROL SYSTEM

A control system should be installed. This will involve DO and ORP probes installed in various points throughout the system. This will enable the operators to monitor, even from their phones at home, the performance of the system. The signals from the probes will feed back to the blowers VFD's, speeding them up or slowing them down so that they only run as much as needed. Having this element of monitoring and control will save energy and allow the operators to maximize the plant's performance. This will especially be true of the BNR features. The old activated sludge plant, in and of itself, required relatively little attention as long as BOD and TSS were the only concerns. The State's recent inclusion of NH₃-N limits has significantly increased the operators' need for online monitoring and control. Now including BNR makes a control system mandatory.

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RETURN SLUDGE PUMPS

For the return sludge, the Village currently has installed three (3) Vaughn HE4K chopper pumps fitted with 8.60" impellers. In Appendix L are included the curve for this pump, along with system head calculations and a multi-pump curve compilation. In the multi-pump curve compilation, the yellow lines represent the curves for the existing 8.60" impellers. The purple lines represent the curves if 8.90" impellers are installed. The existing 5 HP motors are sufficient for the larger impellers. The red line indicates the "system curve" which predicts the pumping requirements as flows increase.

Looking at the curves, the existing pumps are capable of providing a 1:1 flow ratio with a 0.95 MGD = 660 gpm. In order to expand on to 1.5 MGD (or 1,042 gpm), three of the pumps with the larger 8.90" impellers can provide a 1:1 ratio. A fourth pump would have to be installed to serve as the stand-by, since all three of the existing pumps will be required for the 1.5 MGD flow. So, in order to expand to 1.5 MGD, three pumps would need new impellers and a fourth pump would have to be installed.

The further expansion up to 3.0 MGD will require larger pumps. Exactly what pumps will be provided and their number, along with possible piping improvements, will depend on the exact details of that expansion.

CLARIFIERS

For the 3.0 MGD option and in order to meet State requirements for clarifiers, a third and fourth units would have to be supplied. The two existing clarifiers satisfy the State requirements for both the 0.95 and 1.5 MGD expansions, however, both clarifiers should be taken down and completely repainted.

DIGESTERS

The existing digesters provide adequate capacity for both the 0.95 and 1.5 MGD options. Should the Village wish to push ahead to 3.0 MGD, a much larger digester volume will be required. Referring to the 3.0 MGD column of the computer model printout (Appendix B), a total digester volume of 182,131 ft³ will be required to handle the sludge produced by 220 mg/l BOD. The existing digesters provide 49,428 ft³, leaving an additional 132,703 ft³ required. This can be provided in two (2) 70-foot diameter digesters with a 20-foot sidewall liquid depth. Figure 5 shows a possible location for two such tanks. There would be little advantage in building such tankage now. Rather it is recommended that design should be determined based on actual flow/BOD expectations at the time of those expansions.

While working in the digesters to remove the existing aeration grid and installing the new mixer/aeration system, the supernatant withdrawal equipment should be improved. A lower discharge point and a moveable supernatant drain arm should be provided.

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SLUDGE PRESSES

The 3.0 MGD option will require sludge press equipment which can process 83 gpm and a loading rate of 917 lbs./hr. of solids. The 0.95 and 1.5 MGD options will require 12/132 and 19/209 combinations.

Huber Technology provides screw presses which efficiently address these ranges of sludge feed rates and solids loadings. A pilot study of this equipment was conducted at the Coal City WWTP in June 2018. Refer to Appendix H for a copy of the pilot test report and for literature about the presses. A Huber 440.2 can reliably process about 200 lbs./hr. It is recommended that, for either the 0.95 or 1.5 MGD options, such a press should be installed. Such a press is needed anyway to save the Village the costs and troubles of having to depend on contract dewatering and disposal. Therefore, this installation is recommended immediately, regardless of expansion plan.

The 440.02 press should be installed in a building designed to accommodate more presses. It is recommended the floor space should be designed to additionally accommodate either two (2) 620.2 presses or a single 800.2. Which way the Village decides to go may depend on the actual flow/BOD combination being considered for expansions greater than 1.5 MGD. Refer to Figure 5 for a possible location of this building which will include the press room, a truck loadout bay, and a pad for temporary storage.

BNR MIXERS AND RECYCLE PUMPS

For DAFs in excess of 1.0 MGD, the BNR conversions discussed above will be required. The partitioned anaerobic and anoxic tanks will require mixers and recycle pumps will have to be installed to transfer the NO₃-N rich mixed liquor back to the anoxic tank. The mixers are sized based on the tank geometry, so they do not change from the 1.5 to the 3.0 MGD expansion options. The recycle pumps run at generally 2.0 x the influent DAF. The Village could install pumps capable of up to 3.0 MGD, with VFD's to slow them down for the 1.5 MGD plant, or the higher flows could be addressed when expansions greater than 1.5 MGD are considered. Literature is included with Appendix I for mixers and pumps which could be used in this application.

LABORATORY IMPROVEMENTS

The facility currently has very limited capabilities for laboratory testing. For many of the parameters, the testing is done off site and results may take a week or two (or more) to obtain results. This arrangement was acceptable when plants were really only concerned about BOD and TSS, as most changes occurred very slowly, and little operational adjustment was necessary.

With the advent of NH₃-N limits, operators have begun to need same day turnaround on testing results, in order to make adjustments as needed. Moving into a BNR treatment system makes same day results imperative.

All that said, the laboratory capabilities at the facility need to be significantly upgraded. Equipment needs to be purchased to allow most of the testing to be done on-site. This may

require some expansion of the lab area itself, so some cost should be included to allow for that possibility. In addition, it would be recommended that the Village not add the additional workload to the present operators. It is advantageous to seek out a person who can work two or three mornings a week to pull the various samples, run the tests, and document them for the operators' consideration. Laboratory testing requires a significant element of concentration, which is difficult for an operator to provide while also called upon to respond to the many demands of a municipal water and wastewater system.

FLOORING IMPROVEMENTS

Throughout the existing plant, flooring is generally plain concrete. Plain concrete is difficult to keep clean, stains, and can become slippery when wet. Floor coatings can be applied which are quite attractive, easy to keep clean, and have surfaces which tend not to become slippery. New coatings should be provided on both floors of both the headworks building and the sludge/blower building as well. Floor coatings should be provided in any new buildings constructed.

INFLUENT SCREENING

As discussed above, the influent screening equipment is aging and should be replaced. The worn equipment allows offensive materials to pass through uncaptured. Those materials then end up causing issues in later equipment. A new, more efficient screen could be installed. Not only will it have a higher capture rate, but it will run at lower HP and offer a higher capacity than the existing screen. Literature is provided in Appendix J for such a screen which would be ideal in this application.

RAW SEWAGE PUMP PIPING IMPROVEMENTS

The discharge piping on the raw sewage pumps is beginning to corrode badly and should be replaced with Sch 80 PVC.

DISINFECTION EQUIPMENT

As discussed above, the facility currently holds a disinfection exemption. However, the State could at any time withdraw this exemption and require the Village to install disinfection equipment. It is also possible that, upon reviewing requests for expansion, the State may then mandate disinfection. In the interest of preparedness, this report includes a recommended ultra-violet (UV) disinfection system, as presented in Appendix K. The system proposed is an "in-pipe" technology which is much simpler to maintain than the banks of bulbs in a channel which has been standard UV technology for many years. The other advantage of newer "in-pipe" technology is that it is considerably more effective at actually "killing" pathogens. The older technology did not "kill" the pathogens but only temporarily impaired their ability to reproduce. Upon exposure to sunlight, those pathogens would "reactivate." This technology has been acceptable in the past, but at some point it is likely the State will begin requiring UV equipment which actually permanently impairs the pathogens ("kills" them) and prevents any reactivation in the receiving stream. The proposed equipment will accomplish this.

The equipment will need to be installed in the basement of a new disinfection building, which would be built in the approximate location of the existing effluent flow and sampling point. Refer to Figure 5 for an approximate location of this new building. The effluent flume and sampling equipment could then be housed in the new building as well.

CHICAGO AEROSOL WASTEWATER

Chicago Aerosol (C-A) is an industrial customer which discharges sanitary sewage to the Village, while all its "industrial streams" are handled separately. One waste stream in the plant amounts to only about 2,000 gallons per day but carries an average BOD of about 76,000 mg/l. Refer to Appendix M for the report for a study conducted in 2014.

As was concluded in 2014, although the C-A waste volume is very small, its very high strength nature makes it unfavorable as an addition to the Village's existing waste stream. While the Village currently sees around 440 lbs/day BOD, the C-A waste would add an additional 1,262 for a total of 1,702. This would represent a four-fold increase in organic loading which not only represents a considerable increase in required aeration but also will result in a four-fold increase in sludge production. As the 2014 report concluded, it simply is not feasible to add the waste to the plant's incoming waste stream.

Although the C-A waste is not a good candidate for normal aerobic treatment, it is possibly an ideal candidate for anaerobic treatment. High strength wastewaters are actually ideally treated anaerobically. Anaerobics have the advantage that the process requires no air and turns the waste into methane gas, so it creates only 1/10th the sludge an aerobic process does.

The one question is whether the waste is treatable anaerobically. An anaerobic process is more delicate than aerobic. Sometimes if the waste contains biocides or other contaminants, the anaerobic process simply does not work. This can be checked quickly by adding some of the waste to a bottle of anaerobic sludge, putting a balloon on top and seeing if it blows up the balloon. If it does, it suggests the waste may be treatable. The problem comes when there can be offensive products added at specific times, such as nightly cleaning cycles. In order to assure the waste is treatable, a more prolonged pilot study should be undertaken.

Also included in Appendix M is a budgetary proposal for an anaerobic treatment system which could be provided to treat the C-A waste. The proposed system would assume the C-A waste is delivered to the WWTP site (such as by a lift station) to be treated in this separate equipment, then the overflow would go on to the existing aerobic WWTP facility.

The turn-key price suggested for such a system is \$2.2 million. This high price suggests a much closer study would need to be undertaken to determine whether the costs could possibly be negotiated to an amount mutually attractive to both the Village and C-A. At the point of this study's writing, such an arrangement does not appear viable.

It is possible that the C-A wastewater could be included in a major expansion of the existing system. If the design is already including upsized aeration and sludge press equipment, the increases to include C-A become incremental rather than overwhelming.

In the plant computer model (see Appendix B), there is a column included for the 1.5 MGD expansion adding the C-A wastewater. The model tells us:

1. The resulting BOD loading exceeds the capacity of the aeration tanks operating as suspended growth. Either the IFAS or MOB would have to be added.
2. The greater sludge production would require a size larger sludge press or a second smaller one.
3. The C-A waste would incur considerably higher sludge disposal costs.

HIGH VOLUME/LOW STRENGTH WASTEWATERS

Prospective clients have inquired about sending to the Village high volume/low strength wastewaters. They would essentially be sending clean water which would be discharged through the Village's NPDES permitted outfall. The impact of these streams would be entirely hydraulic, affecting the sizing of the influent screening, raw sewage pumps, and final clarifiers. Each such case would have to be evaluated on its own.

PRELIMINARY COST ESTIMATES

For the various options and upgrades being considered, detailed breakdowns of the cost estimates are included as Appendix N. Those results can be summarized as follows:

1. New influent screen with compactor and auger: \$530,000
2. New sludge press with building, loadout, temporary storage pad, etc., with room provided for expansions beyond 1.5 MGD: \$1,700,000
3. 0.95 MGD re-rating: \$50,000
4. 0.95 MGD expansion including BNR improvements; as listed above, along with laboratory improvements and aeration modulating valves: \$3,100,000
5. 1.5 MGD expansion with BNR improvements and RAS upgrades: \$3,200,000
6. 1.5 MGD expansion with BNR, RAS, and C-A wastewater: \$5,500,000
7. 3.0 MGD expansion, including sludge presses, screening, additional digestion, two additional clarifiers, media addition to existing tanks, UV equipment, and all other anticipated requirements for this level of expansion: \$15,000,000

RECOMMENDATIONS

In light of all the information gathered, evaluated and assimilated in this report, the following are our recommendations for the Village's expansion plans:

1. Proceed immediately with a project to replace the influent screening equipment (approximate total) \$530,000
2. Proceed immediately to re-rate the existing plant to 0.95 MGD (approximate total) \$50,000
3. Proceed as soon as possible with a project to install a sludge press with all needed building and roadway pavement (approximate total) \$1,700,000
4. Authorize design and permitting of a 1.5 MGD expansion and begin submitting applications for grant and loan funding to reduce costs. Include further evaluation of inclusion of C-A wastewater with this expansion. Cost for design approximately: \$215,000 - \$275,000
5. For expansions beyond 1.5 MGD, proceed on the basis of actual development.
6. Consider proceeding immediately with various needed improvements; total rough budget \$500,000
 - a. Clarifier painting
 - b. Control system
 - c. Digester supernatant with drawl improvements
 - d. Improved lab equipment/space/additional personnel
 - e. Flooring improvements
 - f. Raw sewage piping to PVC; grating to FRP
 - g. Driveway

FUNDING OPPORTUNITIES

IEPA Revolving Fund Loan

Based on current census data, the Village apparently qualifies for IEPA low interest loans for wastewater related projects. These run around 1.8% interest over 20 years and, for Coal City, there would likely be a forgiveness rate of 15%. See an email exchange with the State included within Appendix O. These loans require first the submittal of a Project Plan. If this is accepted, the actual approval process can take up to two (2) years. One positive is that all engineering and grant administration can be included in the loan.

ComEd Energy Grants

ComEd recently provided for the Village, a "Facility Assessment", where they sought to identify energy saving improvements at the WWTP. A copy of their report is included in Appendix O. Not surprisingly, there are significant opportunities to reduce electrical usage by installing new, more efficient equipment. The greatest opportunity involves installing a control system which will speed up and slow down the aeration blowers so that they only run as much as is absolutely necessary. In general, the paybacks for these improvements are not substantial. However, if the improvements are undertaken anyway to replace old equipment or improve operation, then the reimbursed costs are certainly worth pursuing as part of an actual design project.

IEPA Energy Grants

In addition, there may be energy saving based incentives available from the IEPA. An email with contact information is included with Appendix O.