**Subject:** Application 414-19 for 425 South Cherry Street **From:** Erik Krueger <erik.krueger@wallingfordct.gov>

Date: 3/5/2020 4:38 PM

**To:** "kacie.hand@wallingfordct.gov" <kacie.hand@wallingfordct.gov> **CC:** "Dewey, Jeffrey" <jdewey@Blcompanies.com>, "Gagnon, Christopher"

<cgagnon@Blcompanies.com>

# Kacie,

The applicant for the subject application has generally complied with our previous comments. Please include my memos of December 4, 2019 and January 10, 2020 as conditions of approval.

## Thanks,

Erik Krueger P.E., Senior Engineer Wallingford Water & Sewer Divisions 377 South Cherry Street Wallingford, CT 06492

Phone: 203-949-2672 Fax: 203-949-2678

On 3/5/2020 10:24 AM, Dewey, Jeffrey wrote:

Good morning Erik,

In accordance with your pan review comments, please see attached revised plans.

- 1. Architecture is working on the solution to the fire flow issue
- 2. As previously noted the charges have been acknowledged
- 3. See attached revised plans for the monitoring manhole, revised details
- 4. Added note on plan SU-1 (attached) see note 2

### Jeff Dewey, PE

#### **Senior Engineer II**

BL Companies | Employee owned. Client driven.



Architecture Engineering Environmental Land Surveying

355 Research Parkway, Meriden, CT 06450 tel: **203.630.1406** | direct: 203.608.2567

fax: 203.630.2615

www.blcompanies.com





# Town of Wallingford Department of Engineering

45 South Main Street Wallingford, Connecticut 06492 Tel: (203) 294-2035; Fax: (203) 284-4012



# **MEMO**

TO:

Kacie Hand – Town Planner

FROM:

Department of Engineering AMY\_

RE:

**Response to Traffic Study Peer Review** 

PZC Application #414-19

425 South Cherry Street/Special Permit

DATE:

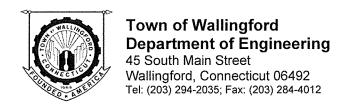
March 10, 2020

I have reviewed the peer review letter dated March 6, 2020 from the Town's consultant, KWH Enterprise, LLC, and generally agree with the findings. I would like to offer the following with regards to Item #1: Improvements to Intersection of Ball Street and Pent Road.

I am very familiar with the vehicle tracking program used to create the truck turning movements submitted with the subject application. I've always found this program to be conservative, and I believe further refining of the truck movements is warranted as it may avoid the need to relocate the curb line.

Regarding the other items, I agree with KWH's findings and recommend the applicant and KWH work together to address all concerns in a manner that is acceptable by the Town.

If you have any questions or require any additional information, please let me know.







## **MEMO**

TO:

Kacie Hand - Town Planner

FROM:

Department of Engineering PMV

RE:

John Street Bridge Status Update

DATE:

March 10, 2020

As requested, I'd like to provide the following update to the John Street Bridge. These are excerpts taken from various correspondence from the State in the past several years:

Per Bridge Safety and Evaluation received 3/26/2018 by Gregory Funk at the State of Connecticut Department of Transportation, Mr. Funk reported that:

"The bridge is classified as an orphan bridge, which is when a local road goes over a railroad and ownership of the structure is unknown. The DOT is responsible for maintenance of structural components only while the Town is responsible for non-structural portions of the structure (wearing surface, curbs, approach sidewalks, etc)." Please note that the structural classification of the bridge was not mentioned in said memo.

Per letter dated November 17, 2014 to Mayor William Dickinson from Theodore H. Nezames, P.E. Manager of Bridges, Bureau of Engineering and Construction, with subject Inspection Report for Orphan Bridges, the John Street Bridge received a rating of 'Fair'. The deck was determined to be in fair condition, while the superstructure, substructure, and approaches were determined to be in satisfactory condition. I have a call into the DOT asking when the next inspection is scheduled to take place.

If you have any questions or require any additional information, please let me know.

Thanks

Kermit



Get Outlook for iOS

On Tue, Mar 17, 2020 at 3:59 PM -0400, "Dion, Michael" < mdion@Blcompanies.com > wrote:

Kermit,

The team would like to know if you are amenable to making the intersection of Ball Street and Pent Road full stop controlled. The client is not in control of the property as they are only leasing it. In order to revise the property line at the site will take extensive coordination with the property owner that has not been initiated and may take substantial time to coordinate a land swap. Stop bars will be set back in order to allow the tractor trailers to pass.

Let us know your thoughts.

Michael Dion, P.E., PTOE Senior Project Manager BL Companies | *Employee owned. Client driven.* 



Architecture Engineering Environmental Land Surveying

Companies

355 Research Parkway, Meriden, CT 06450 tel: **203.630.1406** | direct: 203.608.2416 mobile: 203.231.4109 | fax: 203.630.2615

www.blcompanies.com

We're growing! Build your career at BL.

Learn about opportunities here.

From: Kermit Hua < kermit.hua@kwhenterprise.com >

Sent: Monday, March 16, 2020 3:54 PM

To: Dion, Michael < mdion@Blcompanies.com >

Cc: kacie.hand@wallingfordct.gov

Subject: RE: P&Z Meeting and Comments

I'm ok with just the table of increases. Thanks

Kermit

From: Dion, Michael [mailto:mdion@Blcompanies.com]

Sent: Monday, March 16, 2020 3:51 PM

To: Kermit Hua

Cc: kacie.hand@wallingfordct.gov

Subject: RE: P&Z Meeting and Comments

#### Kermit,

We were intending to recount one of the intersections we had counted already for the project and increase the traffic we count at the new intersection (s) at the same rate. We figured that would be as close as we could get to a pandemic correction factor. If you are good with providing a table detailing the net increase and percent increases we can provide that instead.

#### Thanks,

Michael Dion, P.E., PTOE Senior Project Manager BL Companies | *Employee owned. Client driven.* 



Architecture Engineering Environmental Land Surveying

Companies

355 Research Parkway, Meriden, CT 06450 tel: **203.630.1406** | direct: 203.608.2416 mobile: 203.231.4109 | fax: 203.630.2615

www.blcompanies.com

# We're growing! Build your career at BL.

Learn about opportunities <u>here</u>.

From: Kermit Hua <kermit.hua@kwhenterprise.com>

Sent: Monday, March 16, 2020 3:46 PM

To: Dion, Michael < mdion@Blcompanies.com >

Cc: kacie.hand@wallingfordct.gov

Subject: RE: P&Z Meeting and Comments

#### Michael:

With the worsening pandemic, the current on-street traffic volumes do not reflect normal conditions, and this will likely last for months. So traffic counts and traffic analyses based such counts will not provide the commission much useful information at this time. As a compromise, I recommend that BL provide a table detailing the net increases and percent increases in peak-hour traffic on Ward Street and Quinnipiac Street when compared with the historic traffic volumes collected by ConnDOT. You can use the ConnDOT hourly volumes for count stations #205 and #221, assuming that the latter of which also applies to Ward Street west of South Cherry Street.

The revised trip distribution in Addendum 2 is acceptable.

To reiterate what I stated at the hearing, the concern related to the intersection of Ball Street and Pent Road is



traffic conflicts among tractor trailers and between tractor trailers and other vehicles. Even if the applicant can restrict the tractor trailer hours in a way that do not conflict with other vehicles, it is prudent to address the potential conflicts at this location before the operation starts. The delivery station as a business operation will evolve and change in response to market forces, and the hours of tractor trailer access may change as result. It is better to ask the applicant to remove such conflicts at this location once and for all than to accept arrangements and time restrictions that may work on paper but are difficult to enforce and do not take into account future changes in operations.

I recommend that the commission consider the conditions of adding a left-turn lane on northbound Route 5 and 360-degree camera detection to the intersection of Route 5 and John Street, subject to approvals by OSTA and ConnDOT.

If the scenario of 275 vans does not impact the peak-hour trips in Addendum 2, please provide a table detailing the hourly distributions of the DSP trips and a narrative for the commission's review.

Thank you.

Kermit Hua

From: Dion, Michael [mailto:mdion@Blcompanies.com]

**Sent:** Thursday, March 12, 2020 4:59 PM **To:** Kermit Hua; <a href="mailto:kacie.hand@wallingfordct.gov">kacie.hand@wallingfordct.gov</a>

Subject: P&Z Meeting and Comments

Kermit,

Thank you for attending last night's planning and zoning meeting in Wallingford. I would like to confirm with you what your expectations are from BL Companies for the next meeting. From my notes you would like the following:

- Please confirm which intersections you would like added to the analysis.
- Please confirm our trip distribution is acceptable
- BL Companies will work on a compromise for the Ball Street/Pent Road radius
- BL Companies will not run recommend a left turn lane on Route 5 NB. That can still be a recommendation of the commission though.
- Confirm how you would like us to analyze the 275 condition. Per the client the hours would be extended to 9-2 to accommodate the additional 100 trips. This does not add trips to the mid-day peak. If you would like we can add the first wave to the AM peak in case they come in early but it will have minimal impact as there are so few trips in the AM peak.

Thanks again,

Michael Dion, P.E., PTOE Senior Project Manager BL Companies | *Employee owned. Client driven.* 

**RE: P&Z Meeting and Comments** Subject

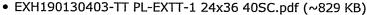
From Dion, Michael <mdion@blcompanies.com>

To Kermit Hua <kermit.hua@kwhenterprise.com>

kacie.hand@wallingfordct.gov < kacie.hand@wallingfordct.gov >, Gagnon, Christopher <cgagnon@blcompanies.com>, Dewey,

Jeffrey <jdewey@blcompanies.com>

Date 2020-03-23 9:52 am



EXH190130403-TT PL-EXTT-2 24x36 40SC.pdf (~829 KB)

#### Kermit,

Please find attached a draft of the concepts for full stop control at Ball/Pent Road intersection. Please take a look and I can set up a conference call with our LD team and you to discuss any comments you may have.

Best,

Michael Dion, P.E., PTOE Senior Project Manager Principal

BL Companies | Employee owned. Client driven.



Architecture Engineering **Environmental** Land Surveying

Companies

355 Research Parkway, Meriden, CT 06450 tel: 203.630.1406 | direct: 203.608.2416 mobile: 203.231.4109 | fax: 203.630.2615

www.blcompanies.com

# We're growing! Build your career at BL.

Learn about opportunities here.

From: Kermit Hua <kermit.hua@kwhenterprise.com>

Sent: Tuesday, March 17, 2020 4:17 PM

To: Dion, Michael <mdion@Blcompanies.com>

Cc: kacie.hand@wallingfordct.gov; Gagnon, Christopher <cgagnon@Blcompanies.com>; Dewey, Jeffrey

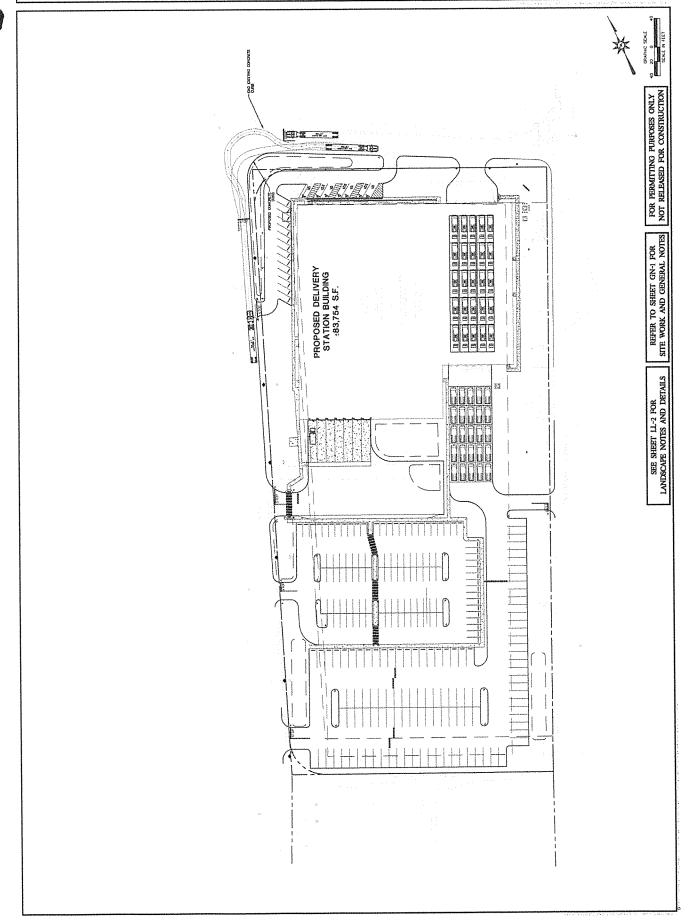
<idewey@Blcompanies.com>

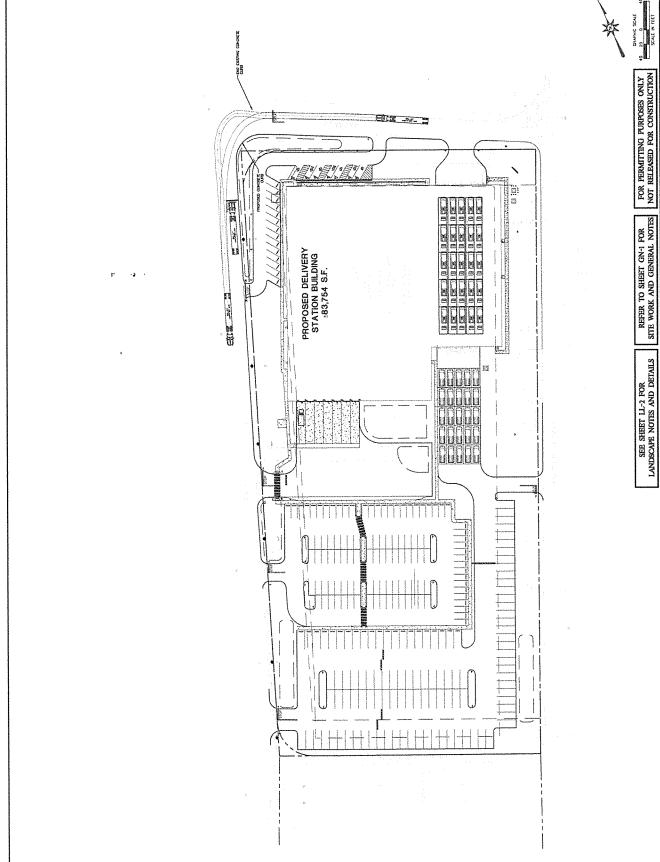
Subject: Re: P&Z Meeting and Comments

#### Mike:

Could you provide a schematic plan for this? Please include autoturn runs of the worst case scenario, two tractor trailers at stop bars. Also, make sure car drivers at two stop bars can see each other and sight lines are not blocked by landscaping or other proposed objects. Are advance warning signs justified? What about warning signs with flashing beacons? Can new street lights be installed because I remember the two streets are not lighted?







#### Kermit

From: Kermit Hua [mailto:kermit.hua@kwhenterprise.com]

Sent: Tuesday, April 14, 2020 2:37 PM

**To:** 'Dion, Michael' **Cc:** 'Dewey, Jeffrey'

Subject: RE: DOB2 - Wallingford, CT / RESPONSE NEEDED

Mike:

The two stop bar locations at the intersection of Ball Street and Pent Road are different from those on plans Exit-1 and Exit 2. Why?

Thanks

Kermit

From: Dion, Michael [mailto:mdion@Blcompanies.com]

Sent: Monday, April 13, 2020 9:42 AM

**To:** Kermit Hua **Cc:** Dewey, Jeffrey

Subject: RE: DOB2 - Wallingford, CT / RESPONSE NEEDED

Kermit,

Our LD PM is checking on the status of payment. He is unsure of if we pay you or the Town but we will get that cleared up. Any chance you have had a chance to look at things?

Best,

Michael Dion, P.E., PTOE Senior Project Manager Principal

BL Companies | Employee owned. Client driven.



Architecture Engineering Environmental Land Surveying

Companies

355 Research Parkway, Meriden, CT 06450 tel: **203.630.1406** | direct: 203.608.2416 mobile: 203.231.4109 | fax: 203.630.2615 www.blcompanies.com

We're growing! Build your career at BL.

Learn about opportunities here.

From: Kermit Hua < kermit.hua@kwhenterprise.com>



#### Get Outlook for iOS

On Fri, Apr 17, 2020 at 7:06 AM -0400, "Dewey, Jeffrey" < idewey@Blcompanies.com > wrote:

Mr Hua,

As discussed: does this mean when we adjust the stop sign and bar locations on the SP-1 site plan to match the locations on the EXTT-1 and EXTT-2 plans; that you are content with the plans?

Thanks

Jeff

Jeff Dewey, PE Senior Engineer II

BL Companies | Employee owned. Client driven.



Architecture Engineering Environmental Land Surveying

Companies

355 Research Parkway, Meriden, CT 06450 tel: **203.630.1406** | direct: 203.608.2567

fax: 203.630.2615

www.blcompanies.com

From: Kermit Hua < kermit.hua@kwhenterprise.com >

Sent: Thursday, April 16, 2020 4:13 PM To: kacie.hand@wallingfordct.gov

Cc: Dion, Michael <mdion@Blcompanies.com>; Dewey, Jeffrey <jdewey@Blcompanies.com>

Subject: FW: DOB2 - Wallingford, CT / RESPONSE NEEDED

Mr. Talbot:

As discussed, here are the two emails I sent to Mike Dion and Jeff Dewey on Tuesday, 4/14/2020.

Kermit Hua

From: Kermit Hua [mailto:kermit.hua@kwhenterprise.com]

**Sent:** Tuesday, April 14, 2020 2:48 PM

To: 'Dion, Michael'
Cc: 'Dewey, Jeffrey'

Subject: RE: DOB2 - Wallingford, CT / RESPONSE NEEDED

Another thing: if the stop bar on Pent Road is moved back, the two crabapple trees on the LA plan need to be removed. Please explicitly show on all affected plans that the sight triangle between the two stop bars will be kept clear.

**Thanks** 

#### Senior Engineer II

BL Companies | Employee owned. Client driven.



Architecture Engineering Environmental Land Surveying

355 Research Parkway, Meriden, CT 06450 tel: **203.630.1406** | direct: 203.608.2567

fax: 203.630.2615

www.blcompanies.com

From: Dewey, Jeffrey

Sent: Friday, April 17, 2020 10:20 AM

To: Kermit Hua < kermit.hua@kwhenterprise.com>; kacie.hand@wallingfordct.gov

Cc: Dion, Michael < mdion@Blcompanies.com >; Gagnon, Christopher < cgagnon@Blcompanies.com >

Subject: RE: DOB2 - Wallingford, CT / RESPONSE NEEDED

Yes understood, I apologize. The SP-1 plan has a drafting error. The intent is to have the traffic controls as shown

on the EXTT plans.

With that said, are the plans acceptable?

### Jeff Dewey, PE Senior Engineer II

BL Companies | Employee owned. Client driven.



Architecture Engineering Environmental Land Surveying

Companies

355 Research Parkway, Meriden, CT 06450 tel: 203.630.1406 | direct: 203.608.2567

fax: 203.630.2615

www.blcompanies.com

From: Kermit Hua < kermit.hua@kwhenterprise.com>

Sent: Friday, April 17, 2020 10:18 AM

To: Dewey, Jeffrey < idewey@Blcompanies.com >; kacie.hand@wallingfordct.gov

Cc: Dion, Michael <mdion@Blcompanies.com>; Gagnon, Christopher <cgagnon@Blcompanies.com>

Subject: Re: DOB2 - Wallingford, CT / RESPONSE NEEDED

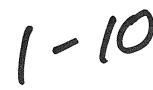
It means you need to use the stop bar locations you showed on the exhibit plans. Otherwise, what's the point of putting together the exhibit plans by running the truck autoturns and not using the results in the submission plan set?

Kermit





April 30, 2020



Alison M. Kapushinski, P.E., Town Engineer Town of Wallingford 45 South Main Street Wallingford, CT 06492

Re: PZC Application #414-19

425 South Cherry Street/Special Permit

Dear Ms. Kapushinski:

We are in receipt of your review comments dated February 28, 2020, regarding the project noted above. Our responses are indicated below in **bold italic** text and are as follows:

1. South Cherry Street has known drainage issues during storm events. Now that a curb cut is proposed along South Cherry Street, it's possible the occupant will investigate ways to reduce drainage issues in the future. I suggest relocating the 3'-wide strip of landscaping between the van and car parking areas to the 5' landscape buffer along the southern property line. This provides additional space to install a storm pipe to Pent Street, if that were to be a preferred option in the future.

Response: We will revise the project plans to relocate the 3' landscape strip to the rear of the property. The revised plans will be available for final review upon conclusion of the May 11, 2020 public hearing.

2. Applicant to provide all pipe sizing calculation tables showing the updated values for the 15" pipe from SWMB-1 to OCS-200 to EX-CB-200 for review by this department.

Response: Please see attached StormCAD tables: Conduit Flex Table – Combined Pipe\_Node Report, Conduit Flex Table: DOT Report, Conduit Flex Table: HEC-22 and Flex Table: Network Elements Table and the Conduit Flex Table; DOT Hydraulic Grade Line Computations.

3. On sheet OSP-2, the note to remove striping to provide 24' aisle shall be updated to call out 30' aisle. Dimensions label the proposed aisle as 30'.

Response: The plan will be revised to provide the 30' aisle width. The revised plans will be available for final review upon conclusion of the May 11, 2020 public hearing.

4. The stop bar shall be in line with the stop sign at the exit driveway located along the west side of the building.





Response: The plans will be revised to include adjustment of the stop bar and sign accordingly. The revised plans will be available for final review upon conclusion of the May 11, 2020 public hearing.

5. Site Operations and Maintenance Plan shall be revised to include the off-site parking lot at 528 South Cherry Street

Response: The site Operations and Maintenance Plan will be revised to include the parking area at the 528 South Cherry Street address. The revised plan will be available for final review upon conclusion of the May 11, 2020 public hearing.

6. Applicant shall submit a compiled update drainage report and plan set to the Engineering Department for filing

Response: The revised Stormwater Management Report will be available for final review upon conclusion of the May 11, 2020 public hearing.

7. We recommend the Applicant post a bond in the amount of \$35,000 for the proposed work and restoration within the Town right-of-way. Said work is subject to a Street Excavation Permit to be issued by the Department of Engineering.

Response: No required action at this time.

We trust this answers your questions and addresses your concerns. Should you require additional information, please feel free to contact me at 203-630-1406.

Sincerely,

Jeffrey Dewey, P.E. Senior Engineer

CC: Tom Talbot (acting Town Planner)

Ground Gro

				Cond	Conduit FlexTable: DOT Report	DOT Report			
Label	-Node- Upstream Downstream	-Depth- Upstream Downstream (ft)	-EGL- Upstream Downstream (ft)	-Ground- Upstream Downstream (ft)	-HGL- Upstream Downstream (ft)	-Invert- Upstream Dovnstream (ft)	Section Discharge Capacity (cfs)	-X- Upstream Downstream (ft)	-Y- Upstream Downstream (ft)
Pipe - (10) (STORM)	CB-204	6.85	57.85	22.60	57.05	50.60	8,02	976,264,70	721,136.85
	MH-201 (STORM)	5.91	57.03	22.90	56.63	50.35	6.22	976,237.79	721,148.83
Pipe - (9) (STORM)	CB-207	5,51	59.50	62,50	59,45	53.96	2.06	976,428,71	721,444.20
Pipe - (7) (STORM)	CB-208	(N/A)	59.54	62.45	59.52	54.72	0.84	976,343.21	721,480.55
	CB-207	5.50	29.52	62,50	15'65	53.96	6.47	976,428.71	721,444.20
Pipe - (1) (STORM)	CB-100	(N/A)	29,09	62.10	58.93	54.50	1.21	976,339.47	721,994.01
	CB-101	4.67	58,43	60.80	58.41	53.43	6.46	976,253.90	721,922.49
Pipe - (16) (STORM)	CB-206	6.41	59,33	60.75	17.65	52,25	3.16	976,364,51	721,346.85
Dies (9) (CTOBM)	CB-203	10.0	58.98	86.03	58.72	51.93	4.56	976.789.97	721,285,127
ripe - (6) (51 OKri)	CB-204	6.58	58.11	57.60	57.99	50.60	7.08	976,264.70	721,136.85
Pipe - (2) (STORM)	CB-101	4.75	58.34	60.80	28.02	53.43	2.39	976,253.90	721,922.49
	HDS-100	4.74	26.68	29.60	29.92	51,34	2.60	976,143,73	721,662.34
Pipe - (4) (STORM)	CB-200	(N/A)	57.72	60.10	57.70	52.64	2.46	976,152.90	721,583.75
	CB-201	5.24	57.71	60.05	79.75	52,38	77.5	9/6,132.89	721,556.26
ripe - (5) (51 OKM)	CB-201	5.46	27.75	58.80	57.51	51.14	10.18	976.071.19	721.408.15
Pine - (3) (STORM)	HDS-100	5.07	56.36	59.60	56,02	51.34	2.83	976,143.73	721,662.34
( ) ( ) ( ) ( ) ( )	EX-CB-100	(N/A)	(N/A)	57.26	25.77	22,20	7.46	976,133,52	721,667.12
Pipe - (6) (STORM)	CB-202	6.17	57.51	58.80	57.24	51,14	6.78	976,071.19	721,408.15
	MH-200 (STORM)	5.53	26.81	22.90	26,68	50,35	8.06	976,030.75	721,253.33
Pipe - (13) (STORM)	OCS-200 (STORN)	3.38	58.15	52.85	56.74	53.60	10.70	975,997.51	721,236.18
	EX-CB-200	(N/A)	(N/A)	06'95	20.03	53.60	00'7	96,908,678	45,052,127
Pipe - (14) (STORM)	SWMB-1 OUT	(N/A)	59.18	28.00	53.19	23.00	6.22	97.0,017.97	721,220.00
Dies - (10) (CTOBM)	UCS-200 (SLORN)	14.5	52.89	61.20	57.22	52.00	10.62	976.177.69	721,518,23
(LNOIS) (at) - adia	SWMB-2	(N/A)	(N/A)	61,00	57.13	55.48	0.38	976,173,38	721,508.73
Pipe - (19) (STORM)	SWMB-2 OUT	(N/A)	61.76	91.00	18'09	55.48	13.81	976,146.17	721,382.74
	OCS-300 (STORM)	8.84	61:31	06.09	60,74	51.48	0.00	976,142.57	721,373.87
Pipe - (28) (STORM)	MH-200 (STORM)	6.03	56.31	57.90	55.77	50.35	9.11	976,030.75	721,253,33
	SWMB-1 IN	(N/A)	(N/A)	58.00	55.73	54.35	00.0	976,036.85	721,250.54
Pipe - (29) (STORM)	MH-201 (STORM)	20.9	76'95	06,76	20.13	54 35	00.6	67,752,076	721,140,03
MaOTO, 15.1	SWMB-1 IN	(N/A)	(N/H)	51.10	58,50	54.03	10.80	976,212,62	721,595,63
Libe - (11) (31 Okis)	MH-301 (STORM)	5.33	25.97	61.20	57.62	52.00	9.94	976,177.69	721,518.23
Pipe - (25) (1)	BLDG 8.3	2.88	60.17	62.90	69:65	66'95	8.99	976,292.13	721,625.49
(SIONI)	MH-300 (STORM)	4.58	59,40	61.10	59.16	54.03	10.83	976,212.62	721,595.63
CO-12	BLDG B.1	(N/A)	63.49	66.30	63.18	62.44	3.37	976,573.23	721,843.49
	BLDG B.2	2.51	60.73	65.10	99'09	22.97	2.00	976,379.84	721,584.19
CO-14	BLDG B.2	2.57	29'09	65.10	44.09	22.97	6.19	976,379.84	721,584,19
	BLDG B.3	2.78	60.27	62.90	60.16	56.99	11.38	976,292,13	721,625.49
00-18	OCS-300 (STORM)	8.88	61.27	06.09	60,13	51.48	13,81	9/6,142.5/	721,373.87
;	MH-302	0,70	20,05	20.90	11.05	50.35	13.81	976,101,41	721 239.47
	CWARP, TN	(A/A)	(N/A)	58.00	56.64	54.35	0.00	976.092.67	721,242,84
00-50	BLDGA	(N/A)	29,82	62.00	26.77	16'85	2.26	976,306.42	721,948.42
	BLDG A.1	2.65	59.53	60.30	29.50	18'95	5.84	976,180.89	721,673.88
	20 CT			Shrea	w Suctame loc Massaud Hal	Book Solution Center			
C-DAT-1901304-FROP-USEL 3/18/2020	C-DAT-1801304-PROPOSED-HYDRAULICS-2019-10-03.stsw 3/18/2020	*		27 Stemon Company	Drive Suite 200 W Watertow	27 Siemon Company Drive Suite 200 W Vintertown, CT 06795 USA +1-203-755-1686	-1666		

				Cond	Conduit FlexTable:				
Label	-Node- Upstream Downstream	-Depth- Upstream Downstream (ft)	-EGL- Upstream Downstream (ft)	-Ground- Upstream Downstream (ft)	-HGL- Upstream Downstream (ft)	-Invert- Upstream Downstream (ft)	Section Discharge Capacity (cfs)	-X- Upstream Downstream (ft)	-Y- Upstream Dovnstream (ft)
10.21	180641	2.68	59.50	06,30	59.45	56.81	2,11	976,180.89	
3	MH-300 (STORM)	4.58	29,40	61.10	59.37	54.03	5.87	976,212.62	
65.03	CB-203	(N/A)	56.85	27.60	56.79	50.47	3.47	976,009.73	
22.00	MH-200 (STORM)	5.53	26.81	27.90	56.78	50'32	10.53	976,030,75	

	Slope (Calculated) (ft/ft)	0.009	0.00	0.010	0.010	0.010	0.012	0.003	0.008	0.003	0.013	0.005	0.010	600'0	0.000	0.000	0.000	0.000	0.009	0.009	0.010	0.010	0.012	0.000	0.007	0.007	0.009
	Invert (Stop) (ft)	53,90	56.93	27.96	57.43	55,93	54.15	55.34	56.40	55.14	07.66	54.35	53.60	53,90	55.48	55,48	54.35	54.35	55.48	26.22	57.97	44.0C	53.90	54.35	56.81	26.22	54.35
	Invert (Start) (ft)	54.15	57.96	58.85	58.50	56.85	55.93	57,43	56,64	26.40	55.34	55.14	53.90	54,15	55.48	55.48	54.35	54.35	56.22	56.99	62,44	76.76	55.48	54.35	58.91	56.81	54.47
	Velocity (ft/s)	6.54	1.68	3.64	£.	2.58	3.72	4.38	4.51	5.5	99.5	3.84	8.72	8.72	6.01	7,81	5.15	6.52	6.11	5:09	5.65	05,5	7.81	7.81	4,46	1.72	1.97
ıtations	Diameter (in)	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	18,0	15.0	18.0	15,0	15.0	18.0	18,0	18.0	15.0	18.0	18.0	15.0	18.0	18.0	18.0	15.0	15.0	18.0
Conduit FlexTable: DOT Storm Drain Computations	Capacity (Full Flow) (cfs)	6.22	6,22	6.47	6.46	6.46	2,08	2.60	5.77	10.18	7.46	8,06	2.00	6.22	0.38	0.00	00.00	0.00	9.94	10.83	2,00	11.38	12.22	0.00	5.84	5.87	10.53
Storm Dr	Flow (cfs)	8.02	2.06	0.84	1.21	3.16	4.56	2.39	2.46	3.06	2,83	6.78	10.70	10.70	10.62	13.81	9.11	8.00	10.80	8.99	3.37	6,19	13.81	13.81	2.26	2,11	3.47
rable: DOT	System Intensity (in/h)	5.015	5.732	7,140	7.140	5.310	5.171	6.946	6.084	6.035	6.481	5.806	7.580	7.580	6.133	7.580	5.505	4.999	6.232	6.355	7.140	6.560	7.580	7.580	7.140	6.645	7.140
nduit Flex1	System Flow S Time (mln)	11.558	9.200	000'9	000'9	10.300	10.894	6.442	8,400	8,511	7,497	9.032	0.052	0.000	8.288	0.000	9.716	11.627	8.063	7.785	00009	7,318	0.009	0.301	6.000	7.125	9.000
Ö	System CA (acres)	1.587	0.357	0.117	0,169	0.591	0.875	0.342	0.400	0.502	0.433	1.159	0.000	0.000	1.719	0.000	1,641	1.587	1.719	1.404	0.468	0.936	0.000	0.000	0.315	0.315	0.483
	pstream Inlet C	0.880	0.330	006'0	0.660	0.850	0.870	0.740	0,740	0.720	0,380	0.870	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	0.900	006'0	0.900	(N/A)	(N/A)	006'0	(N/A)	0.870
	Upstream Inlet Area Upstream Inlet C (acres)	0.809	0.729	0.130	0.255	0.275	0.326	0.234	0.541	0.141	0.240	0.755	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	0.520	0.520	0.520	(N/A)	(N/A)	0.350	(N/A)	0.555
	Length U	29.5	116.6	92.9	111.5	96.3	150.4	282.5	34.0	160,4	11.9	160.0	32.2	22.4	11.0	10.4	7.8	2.6	34.9	85.0	445.3	6'96	140.6	10.2	301.9	84.5	22.1
	Stop Node	MH-201	CB-206	CB-207	CB-101	CB-205	CB-204	HDS-100	CB-201	CB-202	EX-CB-100	MH-200 (STORM)	EX-CB-200	OCS-200 (STORM)	SWMB-2	OCS-300 (STORM)	SWMB-1 IN	SWMB-1 IN	MH-301 (STORM)	MH-300 (STORM)	BLDG B.2	BLDG B.3	MH-302	SWMB-1 IN	BLDG A.1	MH-300 (STORM)	MH-200 (STORM)
	Start Node	CB-204	CB-207	CB-208	CB-100	CB-206	CB-205	CB-101	CB-200	CB-201	HDS-100	CB-202	OCS-200 (STORM)	SWMB-1 OUT	MH-301 (STORM)	SWMB-2 OUT	MH-200 (STORM)	MH-201 (STORM)	MH-300 (STORM)	BLDG B.3	BLDG 8.1	BLDG 8.2	OCS-300	MH-302	BLDG A	BLDG A.1	CB-203

i (SELECTsene	Page 1 of 2
itley StormCAD Vi	

	Headloss (ft)	0.42	0.11	0.02	0.66	0.22	0.74	1.59	0.04	0.11	0.10	0.56	0,00	0.74	60.0	0.07	0.02	0.14	0.87	0.53		02.0	000	2077	0.20	0.32	200	100																			Bentley StormCAD V8i (SEI
	Friction Slope (fVft)	0.015	0.001	0.000	0.006	0.002	0.005	9000	0.001	0.001	0.009	0.004	0.023	0.027	0.010	0.017	0.006	0.015	0.011	0.006	900 0	9000	2000	570.0	610.0	0.001	100.0	7000																		•	n
	Upstream Structure Velocity Head (In- Governing) (ft)	0.66	97.0	0.02	0.16	0.10	0.21	0.24	0.08	90.0	0.27	0.23	1.18	1.18	0.56	0.95	0.43	99'0	0,58	0.40	15.0	0.51	50.0	0.00	0.00	01.0	90.0	000																			
	Depth (Critical) (ft)	<u> </u>	0.57	0.36	0.43	0.72	0.87	0.62	0.63	0.66	0.68	10.1	1.20	1.20	1.25	1.38	1.17	1,11	1,26	1.16	22.0	900	36.1	4.30	05.4	0.00	12.0	17.0																			
C-22 Table A	Depth (Normal) (ft)	(N/A)	05'0	0.30	. 0.37	0.62	0,73	0.57	0.57	0,56	0.53	1.05	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	1.04	130	70.0	(4/14)	(W/N)	(M/M)	¥ 5	0.50	660	Elevation Ground (Start)	€	57.60	02,50	62,43	60.75	60.38	60.80	60.10	60.05	29.60	28.80	57.85	28.00	61.20	97.00	57.90	-	
Conduit FlexTable: HEC-22 Table A	Velocity (ft/s)	6.54	1.68	3,64	40,4	2.58	3.72	4.38	4.51	49.3	5.66	3.84	8.72	8.72	6,01	7.81	5.15	6.52	6.11	5,09	29 6	0000	10.00	10'/	10,1	£.	1 07	16.1	Elevation Crown (Start) (ft)	<u>.</u>	55,40	17.65	00,100	01.82	57.18	58.68	57.89	27.90	56.59	26,64	52.15	55.40	26.98	26.98	55.60	F	
Conduit	Length (Unified) (ft)	27.0	111.0	88.7	107.0	92.0	148.0	277.6	30.0	157.4	10.5	157.5	30.0	27.0	8,4	4.1	4,0	0.6	82.7	84.9	0 17	447.0	0.00	0.751	0.21	301.1	63,9	╗	Upstream Structure E Hydraulic Grade Line	(In)	57.45	79,47	(N/A)	92 95	58.84	58.18	(N/A)	57.64	56.41	57.31	26.98	(N/A)	57,41	(N/A)	56.38	-	:
	Flow (cfs)	8,02	2.06	0.84	1.21	3.16	4.56	2,39	2.46	3.06	2.83	6.78	10,70	10,70	10.62	13.81	9,11	8.00	10.30	66'8		3.3/	67.0	13.81	13,81	2.26	2,11	3.47	Upstream Structure	(R)	58.11	26.52	(A/N)	(A/V)	20.05	58.43	(N/A)	17.72	26,68	57.54	58.16	(N/A)	25.97	(N/N)	50.81	******	
	Rise (Unified) (R)	1.25	1.25	1,25	1.25	1.25	1.25	1.25	1.25	1.50	1.25	1.50	1.25	1.25	1.50	1.50	1.50	1.25	1.50	1.50		1.25	05.1	05.1	1.50	1.25	1.25	> I	Upstream Structure		0.40	0.03	00.00	0.00	11.0	0.14	0.00	0.04	0.39	0.07	0.24	0.00	0.19	0.00	0.61		
	Upstream Structure	CB-204	CB-207	CB-208	CB-100	CB-206	CB-205	CB-101	CB-200	CB-201	HDS-100	CB-202	OCS-200 (STORM)	SWMB-1 OUT	MH-301 (STORM)	SWMB-2 OUT	MH-200 (STORM)	MH-201 (STORM)	MH-300 (STORM)	RIDG B.3		BLDG B.1	BLDG B.2	OCS-300 (STORM)	MH-302	BLDG A	BLDG A.1	CB-203	Upstream Structure	הפמוחסט כספונוכופוור	0,604	0.642	0.000	0000	0.455	625.0	0.000	0.578	1,446	0.326	0.207	0.000	0.346	0.000	1.426	1 707.0	
	Label	Pipe - (10) (STORM)				_							_				Pipe - (28) (STORM)				Ē.								Energy Grade Line (In)	(m)	17.73	59,49	59.54	55.03	59.31	00.00	77.72	57.67	56.29	57.46	52.92	59.38	87.78	92.76	56.20	1 c/'ne	

EC-22 Table A	Elevation Ground (Start) (ft)	61.10	62.90	66.30	65.10	06.09	58.98	62.00	06.30	27.60
Conduit FlexTable: HEC-22 Table A	Elevation Crown (Start) (ft)	57.72	58.49	63.69	29.42	86'98	22'82	91.09	28.06	55.97
Condu	Upstream Structure Hydraulic Grade Line (In) (ft)	58.82	28.82	(N/A)	60.54	60.36	57.73	(N/A)	59.48	(N/A)
	Upstream Structure Energy Grade Line (In) (ft)	59.40	60.27	(N/A)	60.73	61.31	58.68	(N/A)	59.53	(N/A)
	Upstream Structure Headioss (ft)	0.32	0.18	00.00	0.10	0.23	0.81	00.00	0.03	00:00
	Upstream Structure Headloss Coefficient	0.557	0.441	0000	0.510	0.240	0.859	0000	0,747	000'0
	Energy Grade Line (In) (ft)	29.08	60.09	63.49	60.64	61.08	27.87	59.87	59.49	56.85

	(pa)	29.5	116.6	92.9	111.5	96.8	150.4	282.5	34.0	160,4	11.3	160.0	32.2	22.4	10.4	9.6	6.7	8.8	84.9	84.9	445.3	6'96	140.6	9.6	301.9	84.5	22.1																					
	Length (Scaled) (ft)																											Notes		HDPE Pipe	HOPE Pipe	HOPE Pipe	HDPE Pipe	Concrete Pipe	HDPE Pipe	Concrete Pipe	HDPE Pipe	HDPE Pipe	HDPE Pipe	нрис ире								
	Length (User Defined) (ft)	27.0	111.0	88.7	107.0	92.0	148.0	37.75	30.0	157.4	10.5	157.5	30.0	27.0	8.4	4.1	4.0	9.0	82.7	84.9	447.0	98.0	. 137.0	19.0	301.1	83.9	14.0	Depth (Normal) / Rise	(20)	(N/A)	39.7	24.4	79.4	49.4	4.95	45.7	45.6	37.6	45.7	70.3	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	48.9
	Has User Defined Length?	True	True	True	True	True	בים	- rue	 -	- T	Ine	True	True	True	True	True	True	True	True	True	True	True	True	True	True	True	True	Flow / Capacity	(%)	129.1	33.2	13.0	18.8	49.0	# F	42.7	42.5	30.0	38.0	84.1	152.9	172.1	2,775.0	Infinity	Infinity	Infinity	108.6	48.1
	Invert (Stop) (ft)	53.90	26,93	57.96	57.43	55.93	מלינה נ	55,34	04.00	55.14	07'55	54,35	53.60	53.90	25.48	55,48	54.35	54.35	22.48	28.22	25.97	56,93	53.90	54.35	56.81	2275	54,35	Capacity (Full Flow)	(cm)	6.22	6.22	6.47	6.46	6.46	50.7	29.5	//'6	10.18	7.46	8,06	2.00	6.22	0.38	0.00	0.00	0.00	9,94	7.00
duit Table	Set Invert to Stop?	False	False	False	raise	False	2010	raise	agp.	raise	มีลูก เ	raise	Faise	raise	raise	False	False	False	False	False	False	True	False	False	False	False	False	Depth (Out)	(m)	2.73	2.40	1.55	86.0	3.06	+8°C	06.1	1777	75.2	0.57	2.33	2.43	3.55	1.65	5.26	1.38	1.64	2.14	2.69
Flex Table: Conduit Table	Stop Node	мн-201 (STORM)	CB-206	CB-207	G-101	CB-205	107-301	78-201	102-07	707-97	מומטבט סטר ווא	MH-200 (STORM)	EX-CB-200	OCS-ZUU (STORM)	SvariB-2	OCS-300 (STORM)	SWMB-1 IN	SWNB-1 IN	MH-301 (STORM)	MH-300 (STORM)	BLDG B,2	BLDG B.3	MH-302	SWMB-1 IN	BLDG A.1	MH-300 (STORM)	MH-200 (STORM)	Velocity (ff/s)	(chi)	6.54	1.68	3.64	2 :	85.58	2/10	25.4	4.51	5 1	2,66	3,84	8.72	8.72	6.01	7.81	5.15	6.52	6.11	59.65
	Invert (Start) (ft)	54.15	57.95	58.85	00.00	20.82	57.53	54.7c	t0:00	20,40	7000 1	55.14	23.90	2 5	25.48	55,48	54.35	54,35	22.32	26.99	62,44	57.97	55.48	54.35	58.91	56.81	54.47	Flow (rfs)	(cla)	8.02	2.06	0.84	1.21	3.16	4,70	65.2	2.46	3.06	2.83	6.78	10.70	10.70	10,62	13.81	9.11	8.00	10.80	3.37
	Set Invert to Start?	False	raise	raise	ממשר ד	False	200	a septe	ממוסר ביוביר	raise	מאפר ב	raise	raise	raise	raise	Faise	Faise	False	False	False	True	False	False	False	False	False	False	Manning's n		0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.012	0.013	0.012	0.012	0.013	0.013	0.013	0.012	0.013	0.013	0.012
	Start Node	CB-204	CB-50/	907-90 CB-708	00.40	97-90		G-101	00-200	102-90	005-100	CB-507	OCS-200 (STORM)	SWMB-1 UUI	MH-301 (STOKM)	SWMB-2 OUT	MH-200 (STORM)	MH-201 (STORM)	MH-300 (STORM)	BLDG B.3	BLDG B.1	BLDG B.2	OCS-300 (STORM)	MH-302	BLDG A	BLDG A.1	CB-203	Diameter (in)	Î.	15.0	15,0	15.0	15.0	15.0	0.51	0.51	0.61	18.0	15.0	18,0	15.0	15.0	18.0	18.0	18.0	15.0	18.0	15.0
	Label	Pipe - (10) (STORM)	Pipe - (9) (51 OKM)	Pipe - (/) (STURM)	ripe - (1) (31 ORP)	Pipe - (16) (510km)	nipe (2) (STORM)	Pipe - (z) (STORM)	ripe - (4) (3) Oktri)		Pipe - (3) (510kPl)	Pipe - (6) (SIOKM)			Pipe - (18) (SIOKM)					Pipe - (25) (1)	00-12	_			02-50			Section Type		Circle	Circle	Circle			Circle	Circle	Circle	Circle	Circle	Circle	Circle							
	Œ	4	£ :	2 1	7 1	73 67	3.5	£ 5	0 1	2 1	'n	2 1	50	730	731	732	233	234	235	325	346	348	371	373	376	377	378	Slope (Calculated)	(וולוו)	00:00	0.009	0.010	0.010	0.010	0.012	0.008	0.008	0.008	0.013	500.0	0.010	0.009	0.000	0000	0.000	0000	600.0	0.009

C-DAT-1901304-PROPOSED-HYDRAULICS-2019-10-03.slsw 3/18/2020

Bentley Systems, Inc. Haestad Methods Solution Center 27 Siomon Company Drive Stufe 200 W Watertown, CT 06795 USA +1-203-755-1660

Bentley StormCAD VBI (SELECTeenes 5)
[08.11.05.58]
Page 1 of 2

_	•
- F	
1 =	
7	0.012
2,11	
3.4	

Subject 425 South Cherry Street, Wallingford

From Kermit Hua <kermit.hua@kwhenterprise.com>

**To** <kacie.hand@wallingfordct.gov>

**Cc** Dewey, Jeffrey <jdewey@blcompanies.com>, Dion, Michael

<mdion@blcompanies.com>

Date 2020-05-03 8:07 pm



#### Tom:

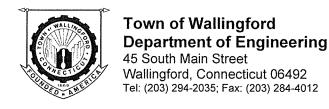
I have reviewed the most recent traffic responses and plan submissions for the 425 South Cherry Street site. I have no further comments other than my recommendations for the commission's consideration as follows, if the commission decides to approve the application:

- 1. I recommend that the commission require the applicant to move the proposed stop bars and associated stop signs for Pent Road and Ball Street on plan SP-2 to locations shown on the most recent truck turning exhibit plans EXTT-1 and EXTT-2 that were sent to the Town Planner and me via email on March 23, 2020. (The dates on the truck turning exhibit plans, 11/26/2019, are incorrect.) In addition, the Landscape Plan should be revised accordingly if proposed trees or plants obstruct sight lines between vehicles at the two new stop bar locations. The purpose of these recommendations is to ensure that tractor trailers will not collide with vehicles stopped on the other road of this proposed all-way stop intersection.
- 2. I recommend that the commission in the approval letter suggest that ConnDOT/OSTA review the feasibility of improvements to the intersection of John Street and Old Colony Road (Route 5), the primary access intersection of the site to State roads. Such improvements may include changes to signal equipment and signal timing and phasing and adding a northbound left-turn lane on the Route 5 approach of the intersection.

Thank you.

Kermit Hua

1-12



Alison M. Kapushinski, P.E. Town Engineer

## **MEMO**

**TO:** Planning & Zoning Commission

FROM: Department of Engineering AMK

**RE:** PZC Application #414-19

425 South Cherry Street/ Special Permit

**DATE:** May 8, 2020

#### Dear Commissioners:

We are in receipt of the following updated materials for the referenced application:

- Response to Comments Letter, BL Companies, dated 4/30/20
- Land Development Plans Issues for Inland Wetlands and Watercourses Approval revised through 1/28/20
- Executive Summary by BL Companies
- Summary of Drainage System Revisions, dated 01/23/20
- Site Operations and Maintenance Plan, dated 11/30/19
- Truck Turning Exhibits Entering and Exiting Site, dated 11/26/19
- Overall Off-Site Plan dated 2/11/20
- Landscape exhibits dated 11/26/19 and revised 2/11/20
- Elevation Drawings AP5.00 and AP5.01, dated 10/16/19 and 2/14/20, respectively

As mentioned in previous memos dated 1/2/20 and 1/28/20, the proposed 71'-wide driveway apron should be narrowed to minimize the number of vehicular conflict points with drivers on Ball Street. We recommend the apron be reduced to a maximum width of 30', which is 6' wider than what is typically allowed. You had previously responded to this comment by stating that reducing the driveway width would create traffic issues for the drivers exiting the building. However, it's my opinion that this is a logistics problem and not a traffic problem. Logistics should be handled by the end-user in a way that satisfies town requirements.

If the applicant does not agree to reducing this driveway apron to a maximum width of 30', I will not be able to support the approval of the application.

If the above is agreed to, we suggest the following comments as Conditions of Approval:

1. The 71'-wide driveway apron should be narrowed to minimize the number of vehicular conflict points with drivers on Ball Street. We recommend the apron be reduced to a maximum width of 30'. A stop sign & stop bar painted per Wallingford's Local Traffic

Authority (Chief of Police) is also recommended at this location. The applicant previously responded to this comment by stating that reducing the driveway width would create traffic issues for the drivers exiting the building. However, it's my opinion that this is a logistics problem and not a traffic problem. Logistics should be handled by the enduser in a way that satisfies town requirements.

- 2. South Cherry Street has known drainage issues during storm events. Now that a curb cut is proposed along South Cherry Street, it's possible the occupant will investigate ways to reduce drainage issues in the future.
  - Suggested Condition of Approval: Relocate the 3'-wide strip of landscaping between the van and car parking areas to the 5' landscape buffer along the southern property line. This provides additional space to install a storm pipe to Pent Street, if that were to be a preferred option in the future.
- 3. The applicant has provided updated pipe sizing calculation tables showing the values for the 15" pipe from SWMB-1 to OCS-200, and OCS-200 to EX-CB-200. However, the table showing the relation of hydraulic grade line to proposed grade elevation is cut off and difficult to follow, so a determination couldn't be made.
  - Suggested Condition of Approval: The pipes shall be sized to keep the hydraulic grade line below the proposed grade for the 10-year storm event.
- 4. On sheet OSP-2, the note to remove striping to provide 24' aisle shall be updated to call out 30' aisle. Dimensions label the proposed aisle as 30'.
- 5. The stop bar shall be in line with the stop sign at the exit driveway located along the west side of the building.
- 6. Site Operations and Maintenance Plan shall be revised to include the off-site parking lot at 528 South Cherry Street.
- 7. Applicant shall submit a compiled updated drainage report and plan set to the Engineering Department for filing.
- 8. We recommend the Applicant post a bond in the amount of \$35,000 for the proposed work and restoration within the Town right-of-way. Said work is subject to a Street Excavation Permit to be issued by the Department of Engineering.

If you have any questions or require any additional information, please let me know.