ADDENDUM
PLAN COMMISSION STAFF REPORT
PC 25-015

To: Members of the Plan Commission

From: Sergio Mendoza, Planning Director

Meeting Date: February 10, 2026

Agenda Item: PC 25-015: SUBDIVISION, proposed 4-lot re-plat of Centennial Village, Lot C

Subject: Addendum to January 13, 2026 Plan Commission Staff Report

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Purpose
This memorandum is an addendum to the January 13, 2026 staff report regarding a replat of CENTENNIAL VILLAGE, LOT C into four lots: 10, 11, 12, and 13. The addendum identifies updates, findings, and recommendation to the proposed 4-Lot Subdivision discussed at the January 13, 2026 Plan Commission (PC) meeting, now for consideration at the February 10, 2026, PC meeting.

Update
Since the January 13, 2026 PC meeting, several subsequent coordination meetings, discussions, and updates have occurred between staff, the applicant, and agents. Most of this effort circled around the attached **CALUMET AVENUE & 45TH AVENUE DVG MEMO** dated 01/21/26 and the **ACCEPTABLE LOS PLAN.**

The memo essentially reads that Calumet Avenue & 45th Avenue intersection intersection operates poorly, with long delays and frequent congestion at a Level of Service (LOS) E and on average, drivers experience about 55 seconds of delay per vehicle. The memo continues to read that if nothing is done to improve this intersection at the time of the Centennial Village PUD build-out, then conditions are expected to be the worst LOS E ever, which will create operational and safety concerns with drivers experiencing a minimum of 76 seconds delay per vehicle.

The memo does identify that adding dual left-turn lanes in both directions on 45th Avenue will reduce backups. However, it does note that this is not the best solution for operational and safety concerns. It is recommended that a realignment of this intersection would need to occur with dual left-turn lanes along 45th Avenue and new right turn lanes on the eastbound and northbound approaches along Calumet Avenue would show substantial improvement. Also adding right-turn lanes into the development would improve through traffic flow by allowing turning vehicles to exit the traffic stream.

The memo identified that if the above-mentioned intersection improvement were to occur at full build-out of the Centennial Village Development, the Level of Service for this intersection changes to D (LOS D) and drivers may experience on average a 46 seconds of delay per vehicle. However, it does note that these necessary improvements may negatively impact the overall development's proposed site layout, including parking and public improvement requirements that may require waivers from the subdivision control ordinance and amendment to the PUD.

It is staff's understanding that the Town is prepared to further explore and accept the challenges of these intersection improvements in an effort to achieve a LOS D and improve the traffic flow, operations, and safety of these two intersecting corridors for its residents and surrounding developments. This interest will need to result in the following actions in support of the proposed 4-Lot replat/subdivision for Centennial Village Lot C:

- Dedicate and install a right-turn lane along Calumet Avenue, north of 45th Avenue, as approved by the Town Engineer.
- Dedicate an additional fifteen (15) feet of right-of-way along the southern property line adjoining the northern public right-of-way of 45th Avenue, as approved by the Town Engineer.
- Waiver of public improvements and surety between North Centennial Drive and Calumet Avenue Right-of-way, excluding all N. Centennial Drive improvements and traffic signal related requirements.
- Recognition of site layout impacts to parking requirements and reflected as an Amendment to the PUD.

Staff Findings and Recommendation
Staff finds these commitments to be responsive to the Town's concerns regarding traffic circulation, roadway capacity, and long-term infrastructure planning. These improvements may be incorporated as conditions of approval, subject to final engineering review and acceptance by the Town.

Staff requests that these findings supplement and refine the analysis contained in the original staff report and should be considered part of the full record, while all other findings, analysis, and recommendations in the original staff report remain unchanged unless otherwise noted.

Motion to GRANT Preliminary Plat Approval for PC 25-015, a 4-Lot subdivision to be known as: LOTS 10, 11, 12, and 13 of CENTENNIAL VILLAGE FIRST RESUBDIVISION OF LOT C, including all discussions and findings, subject to the following conditions:

1. *The applicant shall design and install a dedicated right-turn lane along Calumet Avenue, in accordance with Town Engineer approval.*
2. *The applicant shall dedicate an additional fifteen (15) feet of public right-of-way along 45th Street. Said dedication shall be shown on the preliminary and final plats and recorded in a form acceptable to the Town Engineer and Town Attorney.*
3. *The Plan Commission waives the requirements of public infrastructure improvements and any surety requirements between North Centennial Drive and Calumet Avenue Right-of-way, excluding all N. Centennial Drive improvements and traffic signal related requirements.*

Attachments:
- Calumet Avenue & 45th Avenue DVG Memo dated 01/21/26 (*8 pages*)
- Acceptable LOS Plan (*1 page*)

	Calumet Avenue & 45th Avenue	Date: 2026.01.21

As part of the approval process for portions of the Centennial Village PUD, the Munster Plan Commission members have focused considerable discussion of the poor level of service (LOS) at the intersection of Calumet Avenue and 45th Avenue. As has been discussed at prior meetings, it has been explained that certain deficiencies exist at the intersection which cause this poor LOS. Some of these deficiencies are because of the PUD's traffic generation (intersection spacing) and some are necessary widening that was not performed as part of the grade separation project (dual left-turn lanes, adding right turn lanes) which was unrelated to the PUD.

At and immediately after the 1/13/2026 Plan Commission meeting, staff from SEH, Inc. (the Town's consulting engineers) requested that DVG Team prepare a comparison of scenarios and their respective LOS improvements. Exhibits have been prepared so decision makers can see the impacts to adjacent properties each improvement will make. It is the objective of this summary memo to provide that information:

	Calumet Avenue & 45th Avenue	Date: 2026.01.21

Existing Conditions (2025)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Don't Walk (s)		11.0			11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0			0			0	0
Act Effct Green (s)	46.8	32.5		40.4	29.3		12.5	40.2		8.2	35.9	35.9
Actuated g/C Ratio	0.43	0.30		0.37	0.27		0.11	0.37		0.07	0.33	0.33
v/c Ratio	0.72	1.03		0.94	0.58		0.91	0.97		0.89	0.90	0.25
Control Delay (s/veh)	32.4	71.3		72.9	33.1		77.0	53.8		85.7	46.8	5.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	32.4	71.3		72.9	33.1		77.0	53.8		85.7	46.8	5.6
LOS	C	E		E	C		E	D		F	D	A
Approach Delay (s/veh)		63.7			44.9			59.0			48.6	
Approach LOS		E			D			E			D	
Queue Length 50th (ft)	122	~414		115	157		131	447		85	370	1
Queue Length 95th (ft)	148	#551		#274	217		#200	#581		#124	417	47
Internal Link Dist (ft)		527			437			357			570	
Turn Bay Length (ft)	255			290			435			245		250
Base Capacity (vph)	387	1051		246	950		390	1274		255	1155	619
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.68	1.03		0.94	0.58		0.91	0.97		0.89	0.90	0.25

The intersection currently performs poorly at LOS E. Multiple movements exceed capacity.

Eastbound movements exceed capacity and starve the left-turn lane during peak hours. The lack of a right-turn lane diminishes the capacity of the thru lanes.

Northbound movements thru movements are very near capacity and are hampered by the lack of a northbound right-turn lane.

The westbound left-turn lane operates at capacity today, and queue spillover happens during certain portions of the peak hour on a regular basis.

The average intersection signal delay is 55.2 seconds and LOS E.

	Calumet Avenue & 45th Avenue	Date: 2026.01.21

Full-Build PUD – No Improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Don't Walk (s)		11.0			11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0			0			0	0
Act Effct Green (s)	60.2	43.5		57.5	42.0		18.5	52.6		15.4	49.5	49.5
Actuated g/C Ratio	0.42	0.30		0.40	0.29		0.13	0.36		0.11	0.34	0.34
v/c Ratio	0.71	1.14		1.19	0.67		0.79	1.02		0.88	0.86	0.27
Control Delay (s/veh)	39.4	116.6		146.9	42.8		68.1	68.5		88.8	53.2	11.0
Queue Delay	0.0	0.0		0.0	0.2		0.0	0.0		0.0	6.9	0.0
Total Delay (s/veh)	39.4	116.6		146.9	43.0		68.1	68.5		88.8	60.1	11.0
LOS	D	F		F	D		E	E		F	E	B
Approach Delay (s/veh)		104.5			73.7			68.4			60.6	
Approach LOS		F			E			E			E	
Queue Length 50th (ft)	135	~680		~278	295		170	~682		159	491	27
Queue Length 95th (ft)	200	#824		#484	380		#231	#808		#224	547	75
Internal Link Dist (ft)		527			437			357			316	
Turn Bay Length (ft)	255			290			435			245		250
Base Capacity (vph)	364	1048		240	1013		438	1260		366	1208	625
Starvation Cap Reductn	0	0		0	42		0	0		0	0	0
Spillback Cap Reductn	0	2		0	0		0	0		0	134	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.61	1.14		1.19	0.70		0.79	1.02		0.88	0.97	0.27

As discussed in prior Plan Commission meetings, the additional of network growth and trips created by further construction of the PUD exacerbate the existing conditions further. The same issues identified in the existing conditions will worsen.

Due to the addition of greater PUD trips in the northeast quadrant, queue spillover from the westbound left-turn lane will extend back to N Centennial Drive on a regular basis during the PM Peak Hour. This is evidenced by the 1.19 v/c (volume/capacity) ratio for the westbound left-turn movement.

The average intersection signal delay is 76.4 seconds and LOS E.

	Calumet Avenue & 45th Avenue	Date: 2026.01.21

Full-Build PUD – Add Dual Left-Turn Lanes EB/WB

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Don't Walk (s)		11.0			11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0			0			0	0
Act Effct Green (s)	13.8	47.0		12.7	45.9		18.1	53.0		14.3	49.2	49.2
Actuated g/C Ratio	0.10	0.32		0.09	0.32		0.12	0.37		0.10	0.34	0.34
v/c Ratio	0.68	1.05		0.95	0.62		0.81	1.01		0.95	0.87	0.27
Control Delay (s/veh)	74.1	86.9		94.6	34.6		69.9	66.2		102.0	53.8	11.1
Queue Delay	0.0	0.4		0.0	0.2		0.0	0.0		0.0	1.5	0.0
Total Delay (s/veh)	74.1	87.2		94.6	34.8		69.9	66.2		102.0	55.3	11.1
LOS	E	F		F	C		E	E		F	E	B
Approach Delay (s/veh)		85.2			52.5			67.0			60.2	
Approach LOS		F			D			E			E	
Queue Length 50th (ft)	106	~636		113	286		171	~662		160	492	27
Queue Length 95th (ft)	152	#780		#226	358		#236	#801		#238	548	76
Internal Link Dist (ft)		527			437			357			316	
Turn Bay Length (ft)	255			290			435			245		250
Base Capacity (vph)	364	1129		300	1104		428	1270		338	1200	622
Starvation Cap Reductn	0	0		0	77		0	0		0	0	0
Spillback Cap Reductn	0	1		0	0		0	0		0	56	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.61	1.05		0.95	0.66		0.81	1.01		0.95	0.91	0.27

As westbound left-turn lane spillover is the immediate concern, the intersection was re-modeled assuming both eastbound and westbound left-turn lanes are converted to duals in hopes of lessening this concern.

A reduction in the 50th/95th percentile queue lengths for the westbound left-turn movement is immediate and the v/c ratio is brought back below 1.0. However, the addition of this lane does little to alleviate considerable eastbound thru and northbound thru delay.

Eastbound and northbound thru movements still operate beyond their capacity.

The average intersection signal delay is 67.2 seconds under this scenario and LOS E.

	Calumet Avenue & 45th Avenue	Date: 2026.01.21

Full-Build PUD – Add Dual Left-Turn Lanes EB/WB, Add EB Right-Turn Lane, Add NB Right-Turn Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0			7.0	7.0		7.0	7.0
Flash Don't Walk (s)		11.0	11.0		11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0			0	0		0	0
Act Effct Green (s)	13.8	38.3	38.3	15.6	40.0		19.5	56.4	56.4	16.8	53.6	53.6
Actuated g/C Ratio	0.10	0.26	0.26	0.11	0.28		0.13	0.39	0.39	0.12	0.37	0.37
v/c Ratio	0.68	0.87	0.60	0.77	0.70		0.75	0.75	0.34	0.81	0.80	0.26
Control Delay (s/veh)	74.1	62.4	15.9	63.4	39.8		64.4	36.8	7.0	78.8	46.8	10.0
Queue Delay	0.0	0.0	0.1	0.0	0.2		0.0	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	74.1	62.4	16.0	63.4	40.1		64.4	36.8	7.0	78.8	47.2	10.0
LOS	E	E	B	E	D		E	D	A	E	D	A
Approach Delay (s/veh)		52.0			47.0			38.1			49.7	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	106	393	71	109	296		169	395	15	156	480	25
Queue Length 95th (ft)	152	477	183	160	370		211	398	64	201	535	71
Internal Link Dist (ft)		527			437			357			316	
Turn Bay Length (ft)	250		450	250			435		240	300		250
Base Capacity (vph)	364	964	633	390	989		461	1375	731	414	1309	668
Starvation Cap Reductn	0	0	0	0	42		0	0	0	0	0	0
Spillback Cap Reductn	0	0	12	0	0		0	0	0	0	43	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.85	0.60	0.73	0.72		0.75	0.75	0.34	0.78	0.82	0.26

The Calumet Avenue and 45th Avenue intersection is hampered the most by the absence of right-turn lanes. Without right-turn lanes, turning vehicles must slow for their turns within the thru lane. This behavior causes a decrease in the capacity of the thru lanes. Furthermore, right-turn lanes must queue *within* the thru lane, increasing the thru lanes queue lengths and causing operational issues when in areas with closely spaced intersections.

The above table represents the LOS assuming the addition of an eastbound right-turn lane and a northbound right-turn lane, in conjunction with the previously discussed dual left-turn lanes in the eastbound and westbound directions.

The average intersection signal delay decreases to 46.4 seconds under this scenario and LOS D.

While LOS D may not appear to be a substantial improvement to the lay person, it should be known that achieving even LOS C in an urban or dense suburban environment is nearly impossible. Simply put, two crossing roadways with substantial thru and turning volumes will not approach LOS C. Traffic signals make intersections more efficient than intersections without them, but they also create delay for each vehicle arriving to a red light.

What should be focused on under this scenario is a reduction in peak v/c ratio, from 1.05 down to 0.85.

There is also a drastic reduction in both 50th and 95th percentile queues in *all* movements. The concern for queues interrupting the function of the nearby intersections is removed.

	Calumet Avenue & 45th Avenue	Date: 2026.01.21

Full-Build PUD – Add Dual Left-Turn Lanes EB/WB, Add EB Right-Turn Lane, Add NB Right-Turn Lane, Add WB Right-Turn Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Don't Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	13.8	38.3	38.3	15.6	40.0	40.0	19.5	56.4	56.4	16.8	53.6	53.6
Actuated g/C Ratio	0.10	0.26	0.26	0.11	0.28	0.28	0.13	0.39	0.39	0.12	0.37	0.37
v/c Ratio	0.68	0.87	0.60	0.77	0.47	0.37	0.75	0.75	0.34	0.81	0.80	0.26
Control Delay (s/veh)	74.1	62.4	15.9	63.4	37.6	8.8	64.4	36.8	7.0	78.8	46.8	10.0
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	74.1	62.4	16.0	63.4	37.6	8.8	64.4	36.8	7.0	78.8	47.2	10.0
LOS	E	E	B	E	D	A	E	D	A	E	D	A
Approach Delay (s/veh)		52.0			38.7			38.1			49.7	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	106	393	71	109	203	73	169	395	15	156	480	25
Queue Length 95th (ft)	152	477	183	160	261	123	211	398	64	201	535	71
Internal Link Dist (ft)		527			437			357			316	
Turn Bay Length (ft)	250		450	250		200	435		240	300		250
Base Capacity (vph)	364	964	633	390	998	603	461	1375	731	414	1309	668
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	12	0	0	0	0	0	0	0	43	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.85	0.60	0.73	0.46	0.36	0.75	0.75	0.34	0.78	0.82	0.26

Realizing a westbound right-turn lane has been omitted from the previous scenario, that option was run as well. Under this new scenario, the intersection signal delay decreases only slightly further, to 44.9 seconds, and still operates at LOS D.

Admittedly, the currently presented PUD land plan has options to accommodate an additional one lane width widening on 45th Avenue without material affects to development operations (widening for dual left-turn lanes). Accommodating *two lane widths widening* (one for the dual left, and one for a westbound right-turn lane) would immediately have material affects to development operations and the overall land plan for the northeast quadrant of Calumet Avenue and 45th Avenue.

Summary / Conclusions

It is evident that entertaining dual-left turn lanes on 45th Avenue will alleviate some of the operational concerns with the N Centennial Drive intersection, but it is clear that this improvement alone will not substantially increase the capacity or efficiency of the Calumet Avenue and 45th Avenue intersection.

The additions of missing right-turn lanes, particularly northbound and eastbound, will provide the most substantive LOS reductions at this intersection.

Geometric Obstacles

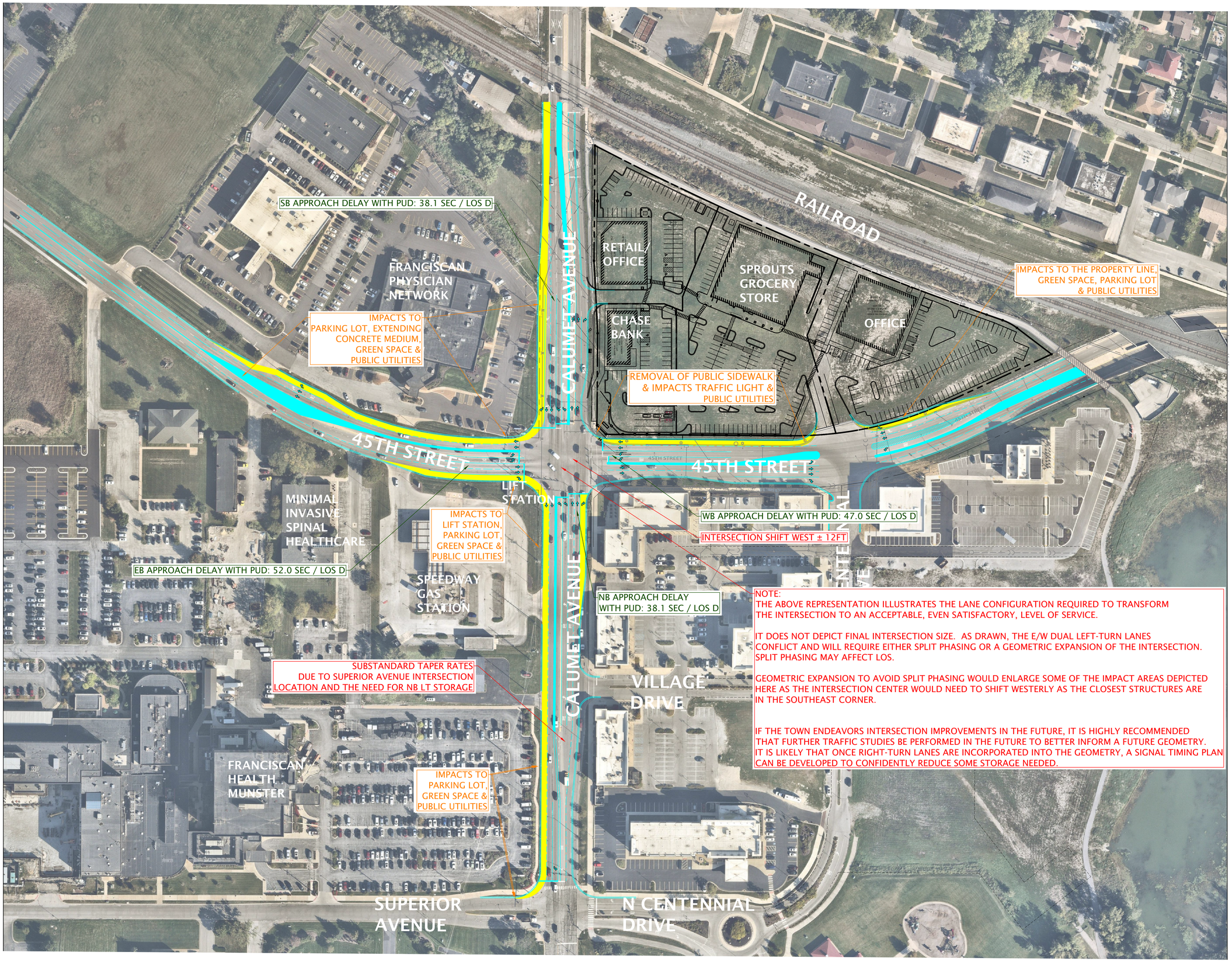
As illustrated in the attached exhibits, consideration of widening both roadways in the future will require tackling issues likely avoided during the reconstruction of the intersection over the past 10 years.

Installation of an eastbound right-turn lane will almost certainly require relocation of a sanitary lift station in the southwest quadrant of the intersection.

Installation of the dual left-turns lanes and their associated widening will almost certainly require ROW takes and possible parking lot impacts to the development in the northwest quadrant of the intersection.

Installation of a northbound right-turn lane will likely require realignment of Calumet Avenue through the intersection due to existing buildings in the southeast quadrant that are close to existing ROW lines.

Holistically, the intersection will need to get larger as the current east/west stop bars are not a sufficient distance from each other to prevent the left-turn movements from conflicting with each other. While this obstacle may be solved through different signal phasing, that answer is best determined at a later date.



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www.dvgteam.com

NOT FOR CONSTRUCTION

01/20/26

CV BDG A LLC
631 Killarney Drive
Dyer, IN 46311

DATE:	REVISIONS AND NOTES:

NOT FOR CONSTRUCTION

Centennial Village - Lot 11

ROADWAY GEOMETRY
ACCEPTABLE LOS GEOMETRY

N

0' 40' 80'
SCALE: 1" = 80'

DESIGN BY	DATE
GMPF	01/20/26
PROJECT NO.	
25-0081	
EX 3	