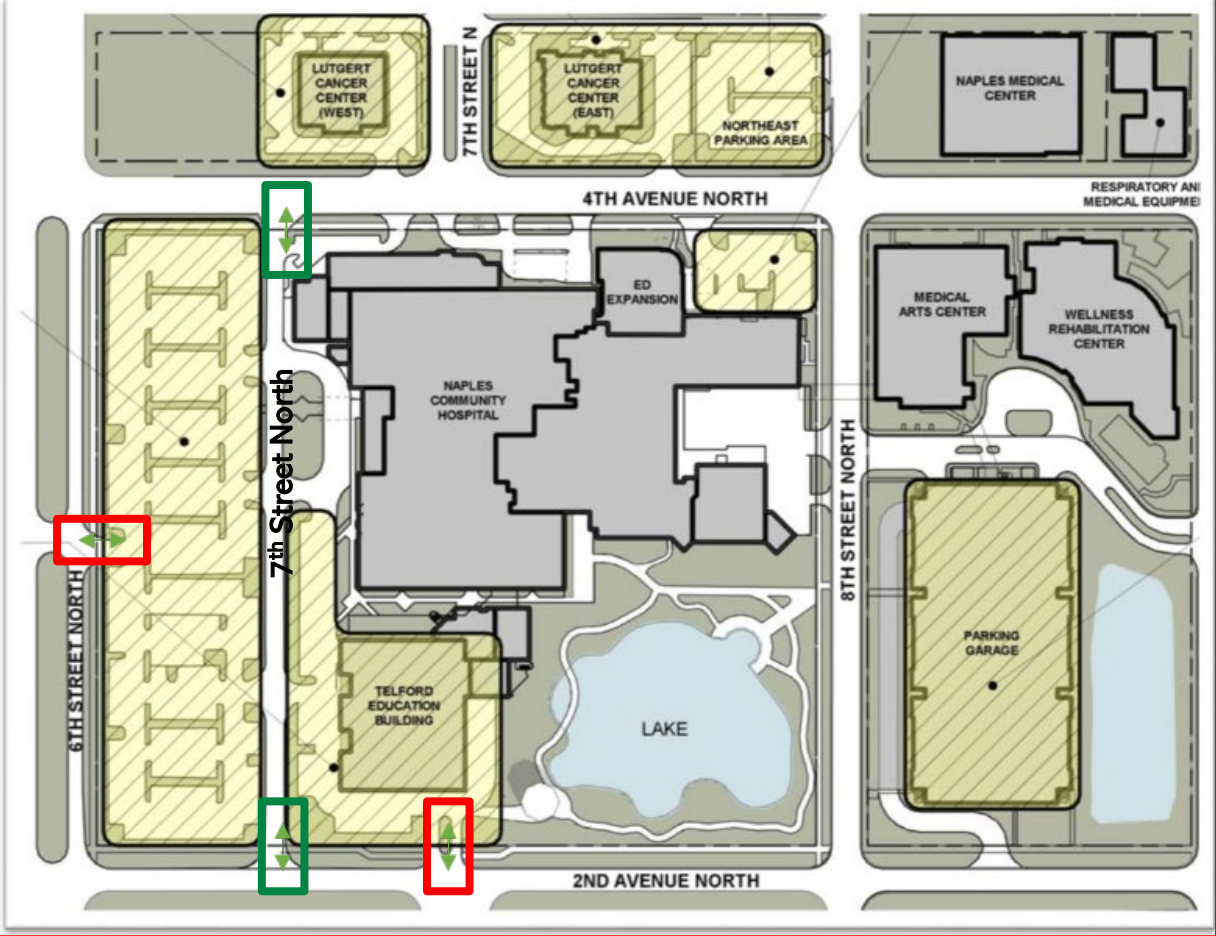


**NCH**

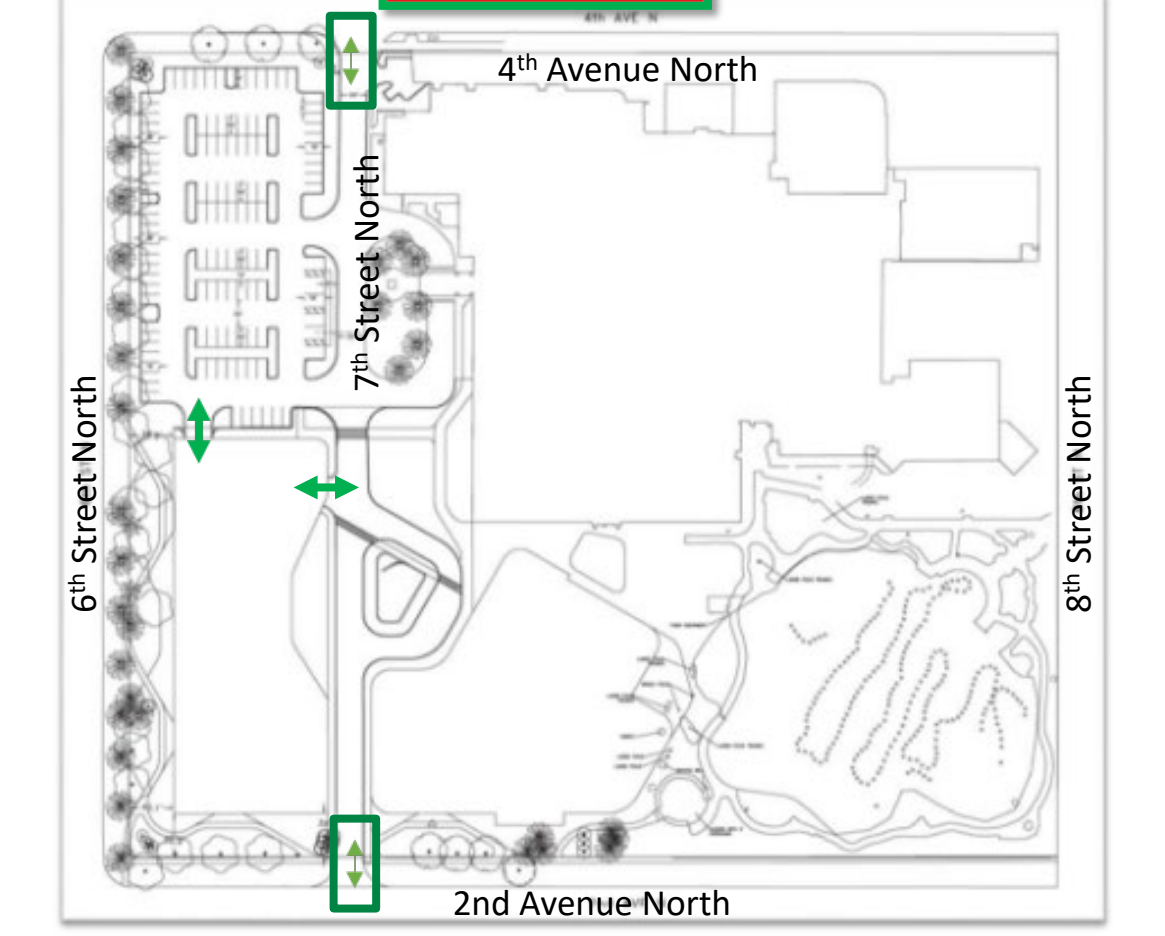


Access, Valet, Circulation and Traffic Study Presentation by:  
Norman J. Trebilcock, AICP, PTOE, PE

**Site Existing Conditions**



**Site Proposed Conditions**

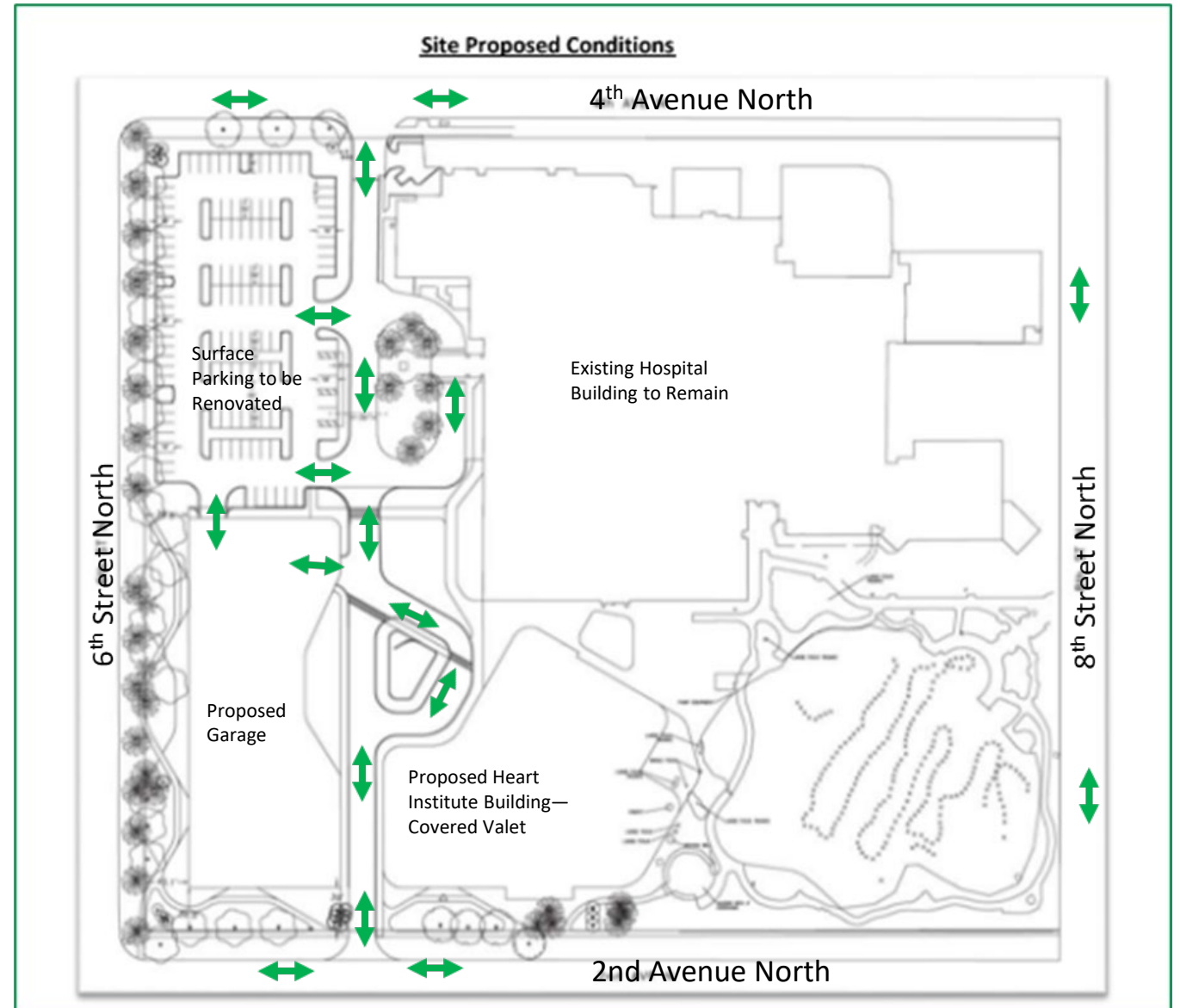


**Site Access (4 Existing vs. 2 Proposed):**

- Existing 6<sup>th</sup> Street North Access to be eliminated—reduces hospital traffic on the residential street.
- Existing 2<sup>nd</sup> Ave N Telford Education Building Access to be Eliminated. 7<sup>th</sup> Street N. Access to remain.
- 7<sup>th</sup> Street N (internal to the hospital campus) becomes a core N-S roadway connecting 4<sup>th</sup> Ave N and 2<sup>nd</sup> Ave N. Internalizes hospital campus traffic.
- New Garage Access creates a more internalized circulation—garage access at NW and NE corner of garage (i.e., garage entry stacking stays on site).

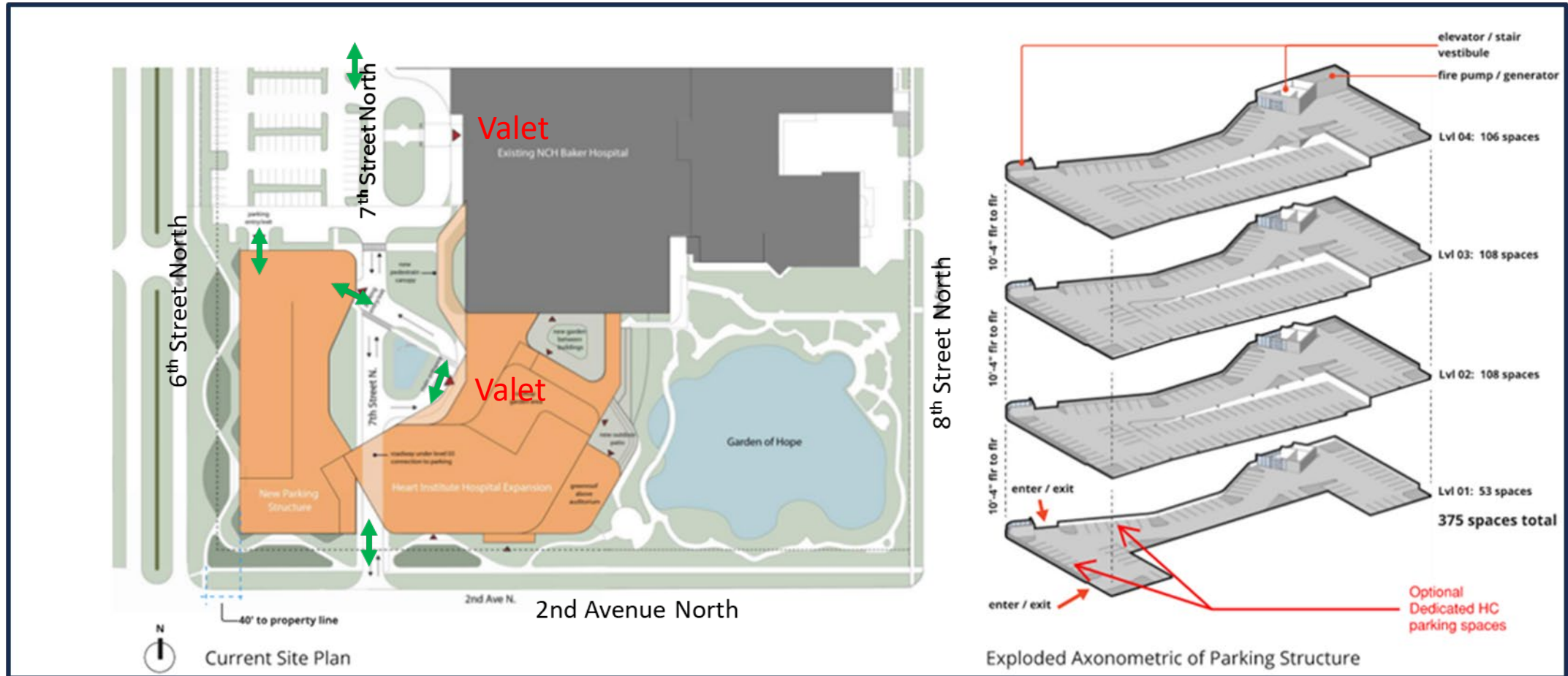
## Site Circulation

- Proposal is to eliminate 2 accesses: 1 off 6<sup>th</sup> St N and 1 off 2<sup>nd</sup> Ave N.
- The 2 remaining accesses (7<sup>th</sup> St N/4<sup>th</sup> Ave N & 7<sup>th</sup> St N/2<sup>nd</sup> Ave N) have been evaluated for buildout conditions using Synchro 11 program for AM and PM peak hour conditions.
- The 2 accesses will permit full movements to and from the hospital onto 2<sup>nd</sup> Ave N and 4<sup>th</sup> Ave N.
- Levels of Service (LOS) are satisfactory (A and B) for future conditions at project buildout at both access locations with proposed lane calls and improvements.



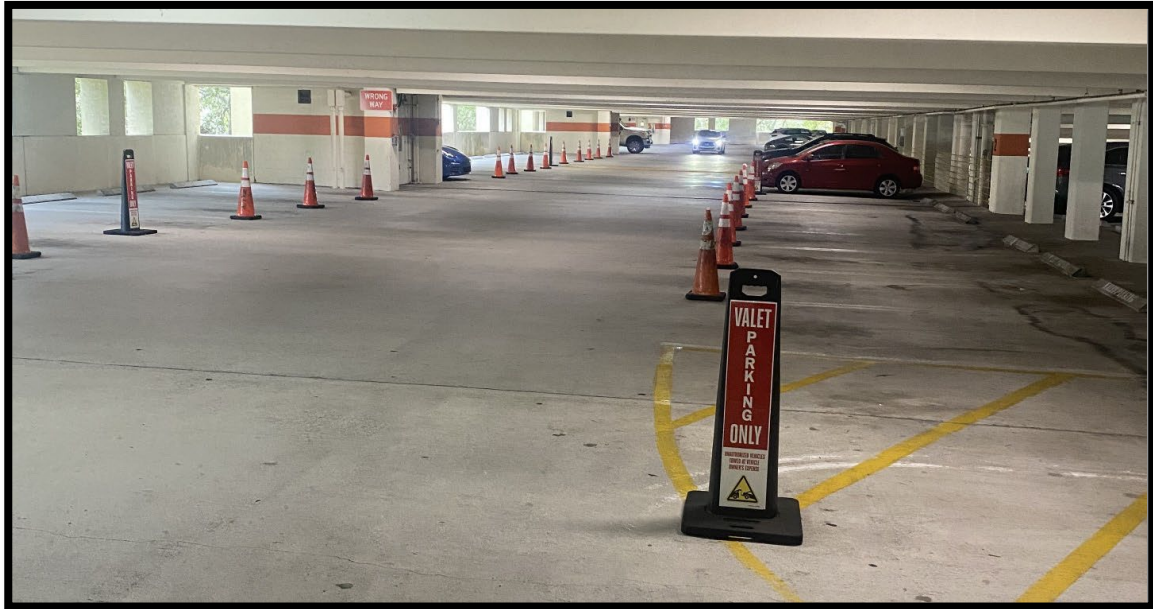
## Garage Circulation and Levels

4<sup>th</sup> Avenue North



- NE garage access provide a direct connection to 7<sup>th</sup> St N and to Heart Institute Valet Drop Off.
- NW garage access connects to the surface parking lot.
- Location of garage accesses provide internal site stacking to eliminate facility access impacts to the external road network.
- **Level 1 = Valet Parking;** Level 2 = Public Parking; Level 3 = Physician Parking; Level 4 = Public Parking.





**Table 1**  
**Development Program**

<b>Development</b>	<b>Land Use</b>	<b>ITE Land Use Code</b>	<b>Total Size</b>
Existing Main <sup>(1)</sup>	Hospital	#610 – Hospital	445,607 sf
<b>Proposed Expansion</b>	Hospital	#610 – Hospital	<b>189,467 sf</b>
<b>Total</b>			<b>635,074, sf</b>

Note(s): (1) Excludes Existing Telford Education Building – 48ksf (+/-). Includes the ER Department.

**Table 2A**  
**Proposed Hospital Expansion – Trip Generation – Average Weekday**

Development		Weekday (2-way)	AM Peak Hour			PM Peak Hour		
ITE Land Use	Size <sup>(1)</sup>		Enter	Exit	Total	Enter	Exit	Total
Hospital	189,467 sf	2,041	104	51	155	57	106	163

Note(s): (1) Refer to Table 1; sf = square feet.

**Table 2B**  
**Proposed Hospital Buildout – Trip Generation – Average Weekday**

Development		Weekday (2-way)	AM Peak Hour			PM Peak Hour		
ITE Land Use	Size <sup>(1)</sup>		Enter	Exit	Total	Enter	Exit	Total
Hospital	635,074 sf	6,840	349	172	521	191	355	546

Note(s): (1) Refer to Table 1; sf = square feet.

**Table 2C**  
**Access Operational Analysis – Trip Generation – Average Weekday**

Development		Weekday (2-way)	AM Peak Hour			PM Peak Hour		
ITE Land Use	Size <sup>(1)</sup>		Enter	Exit	Total	Enter	Exit	Total
Hospital	463,365 sf	4,990	255	125	380	139	259	398

Note(s): (1) sf = square feet.









**Table 3**  
**Project Traffic Distribution for PM Peak Hour**

Roadway Link	Roadway Link Location	Distribution of Project Traffic	PM Peak Hour Project Traffic Volume		
			Enter	Exit	Total
US 41	North of 4 <sup>th</sup> Ave N	50%	29	53	82
US 41	2 <sup>nd</sup> Ave N to Central Ave	15%	8	16	24
US 41	South of Central Ave	28%	16	30	46
4 <sup>th</sup> Ave N	US 41 to 8 <sup>th</sup> St N	50%	29	53	82
4 <sup>th</sup> Ave N	8 <sup>th</sup> St N to Project	55%	31	58	89
4 <sup>th</sup> Ave N	West of Project	5%	3	5	8
2 <sup>nd</sup> Ave N	US 41 to 8 <sup>th</sup> St N	15%	8	16	24
2 <sup>nd</sup> Ave N	8 <sup>th</sup> St N to Project	32%	18	34	52
2 <sup>nd</sup> Ave N	West of Project	8%	5	9	14
Central Ave	East of US 41	2%	1	2	3
Central Ave	West of US 41	15%	8	16	24
8 <sup>th</sup> St N	North of 4 <sup>th</sup> Ave N	5%	3	5	8
8 <sup>th</sup> St N	South of 2 <sup>nd</sup> Ave N	17%	10	18	28

**Table 4B**  
**Background Traffic without Project (2023 - 2045)**

Roadway Link	Roadway Link Location	2023 Pk Hr., Two-Way Background Traffic Volume <sup>(1)</sup>	Projected Traffic Annual Growth Rate	Growth Factor <sup>(2)</sup>	2045 Projected Pk Hr., Two-Way Background Traffic Volume w/out Project <sup>(3)</sup>
US 41	North of 4 <sup>th</sup> Ave N	3,849	1.0%	1.2447	4,791
US 41	2 <sup>nd</sup> Ave N to Central Ave	3,849	1.0%	1.2447	4,791
US 41	South of Central Ave	3,849	1.0%	1.2447	4,791
4 <sup>th</sup> Ave N	US 41 to 8 <sup>th</sup> St N	593	1.0%	1.2447	738
4 <sup>th</sup> Ave N	8 <sup>th</sup> St N to Project	593 <sup>(4)</sup>	1.0%	1.2447	738
4 <sup>th</sup> Ave N	West of Project	352 <sup>(5)</sup>	1.0%	1.2447	438
2 <sup>nd</sup> Ave N	US 41 to 8 <sup>th</sup> St N	352 <sup>(5)</sup>	1.0%	1.2447	438
2 <sup>nd</sup> Ave N	8 <sup>th</sup> St N to Project	352 <sup>(5)</sup>	1.0%	1.2447	438
2 <sup>nd</sup> Ave N	West of Project	352 <sup>(5)</sup>	1.0%	1.2447	438
Central Ave	East of US 41	662	1.0%	1.2447	824
Central Ave	West of US 41	662	1.0%	1.2447	824
8 <sup>th</sup> St N	North of 4 <sup>th</sup> Ave N	340	1.0%	1.2447	423
8 <sup>th</sup> St N	South of 2 <sup>nd</sup> Ave N	340	1.0%	1.2447	423

Note(s): (1) City of Naples Traffic Counts – Year 2023; vehicles per hour.

(2) Growth Factor =  $(1 + \text{Annual Growth Rate})^{22}$ .

(3) 2045 Projected Volume = 2023 Peak Hour Background Traffic Volume x Growth Factor.

(4) Not a City monitored roadway segment; City traffic counts for the 4<sup>th</sup> Ave N segment from US 41 to 8<sup>th</sup> St N.

(5) Not a City monitored facility; a similar type facility is considered – 5<sup>th</sup> Ave N.

**Table 6**  
**Roadway Link Level of Service (LOS) – With Project in the Year 2045**

Roadway Link	Roadway Link Location	2045 Peak Hour Capacity Volume <sup>(1)</sup>	Project Peak Hour Two-Way (Volume Added) <sup>(2)</sup>	2045 Peak Hour Volume w/Project <sup>(3)</sup>	% Volume Capacity Impact By Project	Remaining Volume Capacity	LOS Standard Exceeded Without Project? Yes/No	LOS Standard Exceeded With Project? Yes/No
US 41	North of 4 <sup>th</sup> Ave N	5,660	82	4,873	1.4%	787	No	No
US 41	2 <sup>th</sup> Ave N to Central Ave	5,660	24	4,815	0.4%	845	No	No
US 41	South of Central Ave	5,660	46	4,837	0.8%	823	No	No
4 <sup>th</sup> Ave N	US 41 to 8 <sup>th</sup> St N	1,570	82	820	5.2%	750	No	No
4 <sup>th</sup> Ave N	8 <sup>th</sup> St N to Project	1,570	89	827	5.7%	743	No	No
4 <sup>th</sup> Ave N	West of Project	1,080	8	446	0.7%	634	No	No
2 <sup>nd</sup> Ave N	US 41 to 8 <sup>th</sup> St N	1,080	24	462	2.2%	618	No	No
2 <sup>nd</sup> Ave N	8 <sup>th</sup> St N to Project	1,080	52	490	4.8%	590	No	No
2 <sup>nd</sup> Ave N	West of Project	1,080	14	452	1.3%	628	No	No
Central Ave	East of US 41	1,570	3	827	0.2%	743	No	No
Central Ave	West of US 41	1,570	24	848	1.5%	722	No	No
8 <sup>th</sup> St N	North of 4 <sup>th</sup> Ave N	1,080	8	431	0.7%	649	No	No
8 <sup>th</sup> St N	South of 2 <sup>nd</sup> Ave N	1,080	28	451	2.6%	629	No	No

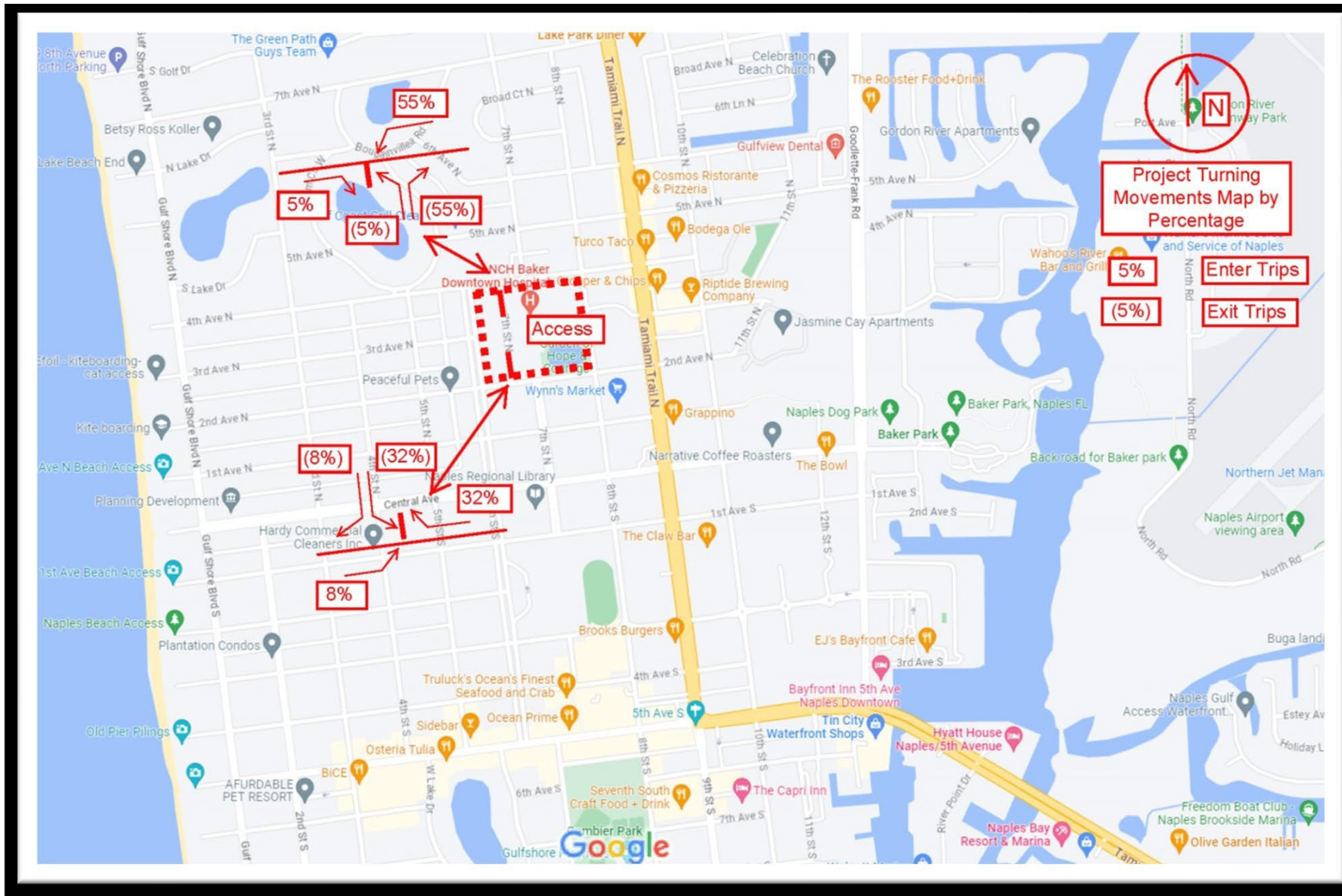
Note(s): (1) Refer to Figure 5.

(2) Refer to Figure 3.

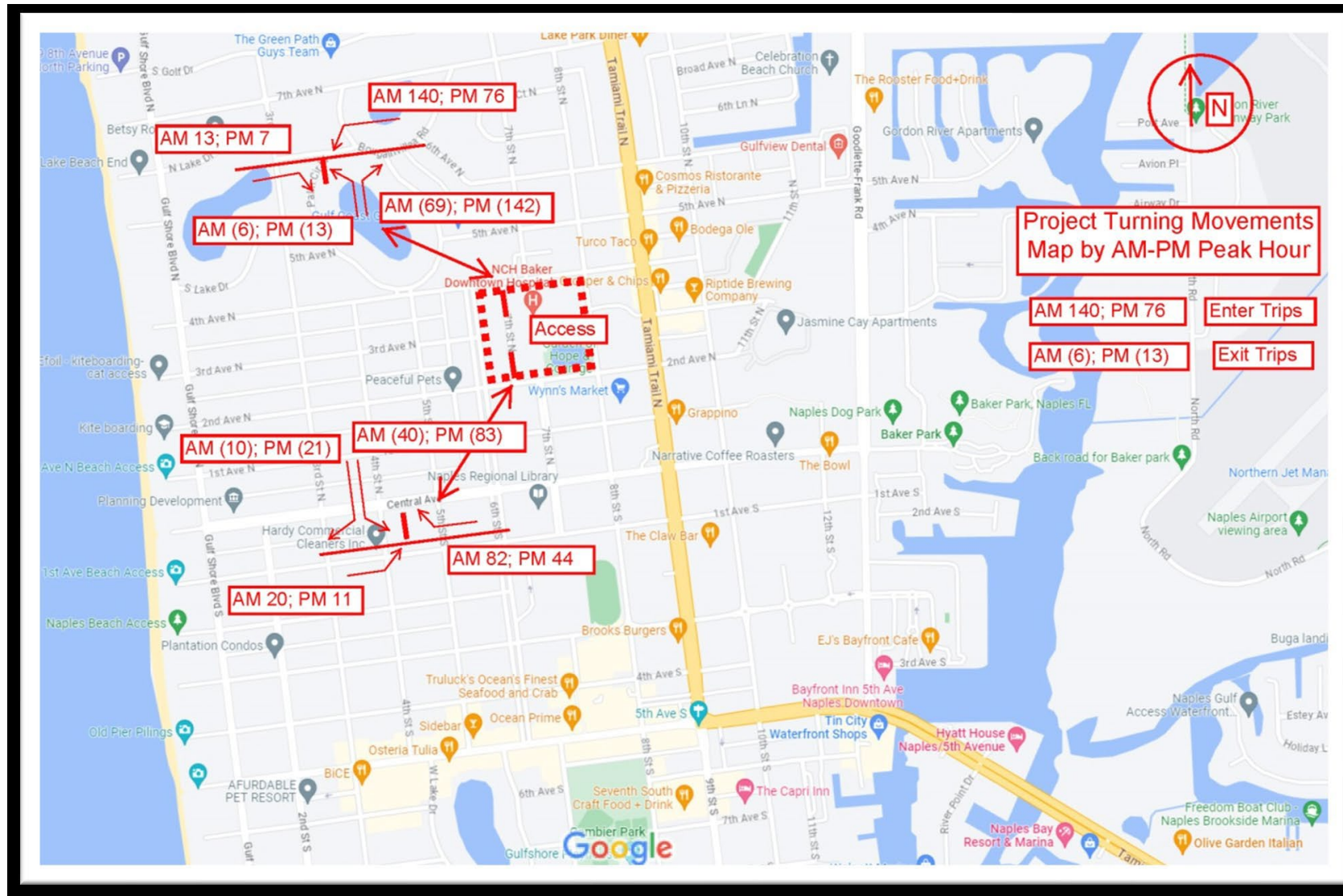
(3) 2045 Projected Volume = 2045 Background Traffic (refer to Table 4B) + Project Volume added.



## Project Turning Movement by Percentage at 7<sup>th</sup> St at 4<sup>th</sup> Ave N and 2<sup>nd</sup> Ave N



## Project Turning Movements AM and PM Pk at 7<sup>th</sup> St at 4<sup>th</sup> Ave N and 2<sup>nd</sup> Ave N



## Improvement Analysis

- Based on the traffic evaluation presented in this report, the proposed project is not an adverse traffic generator for the surrounding roadway network.
- There is adequate and sufficient roadway capacity to accommodate the proposed development.
- Based upon the results of the turn lane analysis performed and as coordinated with staff, a westbound right turn lane is recommended at the project 7<sup>th</sup> St access on 2nd Avenue N.

## Mitigation of Impact

- NCH proposes to pay the appropriate City of Naples Impact Fees as building permits are issued for the project, as applicable.

**NCH**

**THANK YOU**



**TREBILCOCK**  
CONSULTING SOLUTIONS



11/15/23 –  
07:13am



07:13:13



11/15/23 –  
11:47am



6 11:47:35





11/16/23  
12:58pm

58:52



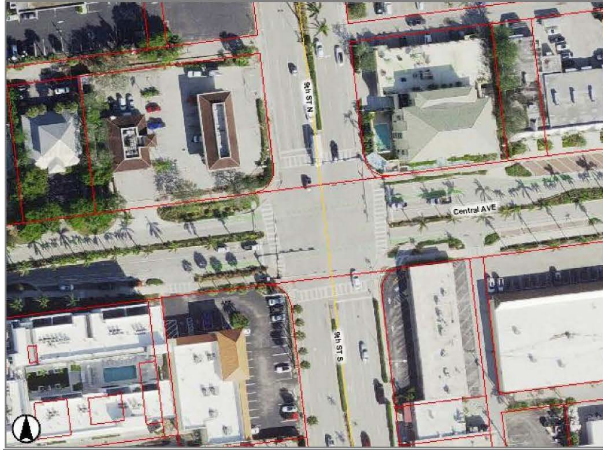


11/17/23  
12:58pm



# NCH Heart, Vascular & Stroke Institute

5 Year (2018-2023) Accident Data Along US 41 in the Vicinity of NCH Baker Campus



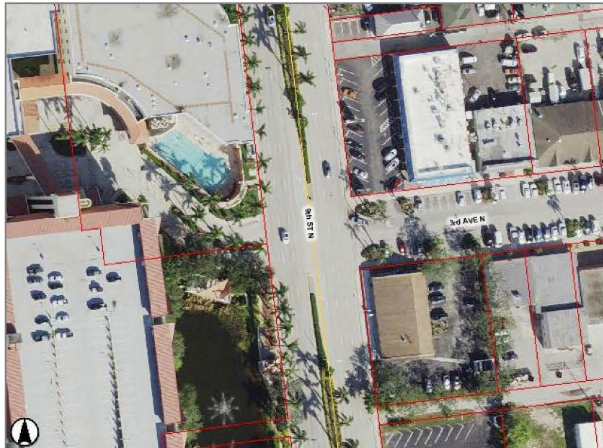
### CENTRAL AVE AND 9<sup>TH</sup> ST N (Signal)

Central @ 9<sup>th</sup> St N = 10      9<sup>th</sup> St N @ Central = 21  
**Total Accidents = 31**



### 2<sup>ND</sup> AVE N AND 9<sup>TH</sup> ST N (No Signal)

2<sup>nd</sup> Ave N @ 9<sup>th</sup> St N = 6      9<sup>th</sup> St N @ 2<sup>nd</sup> Ave N = 8  
**Total Accidents = 14**



### 3<sup>RD</sup> AVE N AND 9<sup>TH</sup> ST N @ NCH BAKER (No Signal)

3<sup>rd</sup> Ave N @ 9<sup>th</sup> St N = 1      9<sup>th</sup> St N @ 3<sup>rd</sup> Ave N = 4  
**Total Accidents = 5**



### 4<sup>TH</sup> AVE N AND 9<sup>TH</sup> ST N (Signal)

4<sup>th</sup> Ave N @ 9<sup>th</sup> St N = 11      9<sup>th</sup> St N @ 4<sup>th</sup> Ave N = 18  
**Total Accidents = 29**



### NAPLES COMMUNITY HOSPITAL BAKER CAMPUS



View west on 4th Ave N toward 6th St N.  
Note additional EB lane on 4<sup>th</sup> Ave N east of  
6<sup>th</sup> St N. (defacto rt turn lane into hospital 7<sup>th</sup>  
St N entrance.



View East on 4th Ave N at 7<sup>th</sup> St N Hospital Entrance.





View East on 4th Ave N at 7<sup>th</sup> St N Hospital Entrance.





View West on 3rd Ave N at 6ths St N



View north up 6th St N toward residences at  
NW corner with 3rd Ave N





View East on 3rd Ave N at 6<sup>th</sup> St N Parking Lot Entrance—to be removed.



View West at 2nd Ave N and Hosp Internal  
7th St Entrance. Room available for right  
turn lane.





View south within Hosp Int of 7th St towards  
2nd Ave N



View West on 2<sup>nd</sup> Ave N at Hospital 7ths St





View East on 2nd Ave N at Telford Entrance  
(Dr's entrance)

