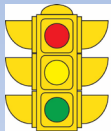


Lackawanna Redevelopment Plan Summary of Traffic Study

February 9, 2023

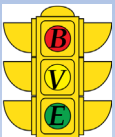


Bright View Engineering
Moving you forward

Joseph A. Fishinger, Jr., PE, PP, PTOE
Director of Traffic Engineering

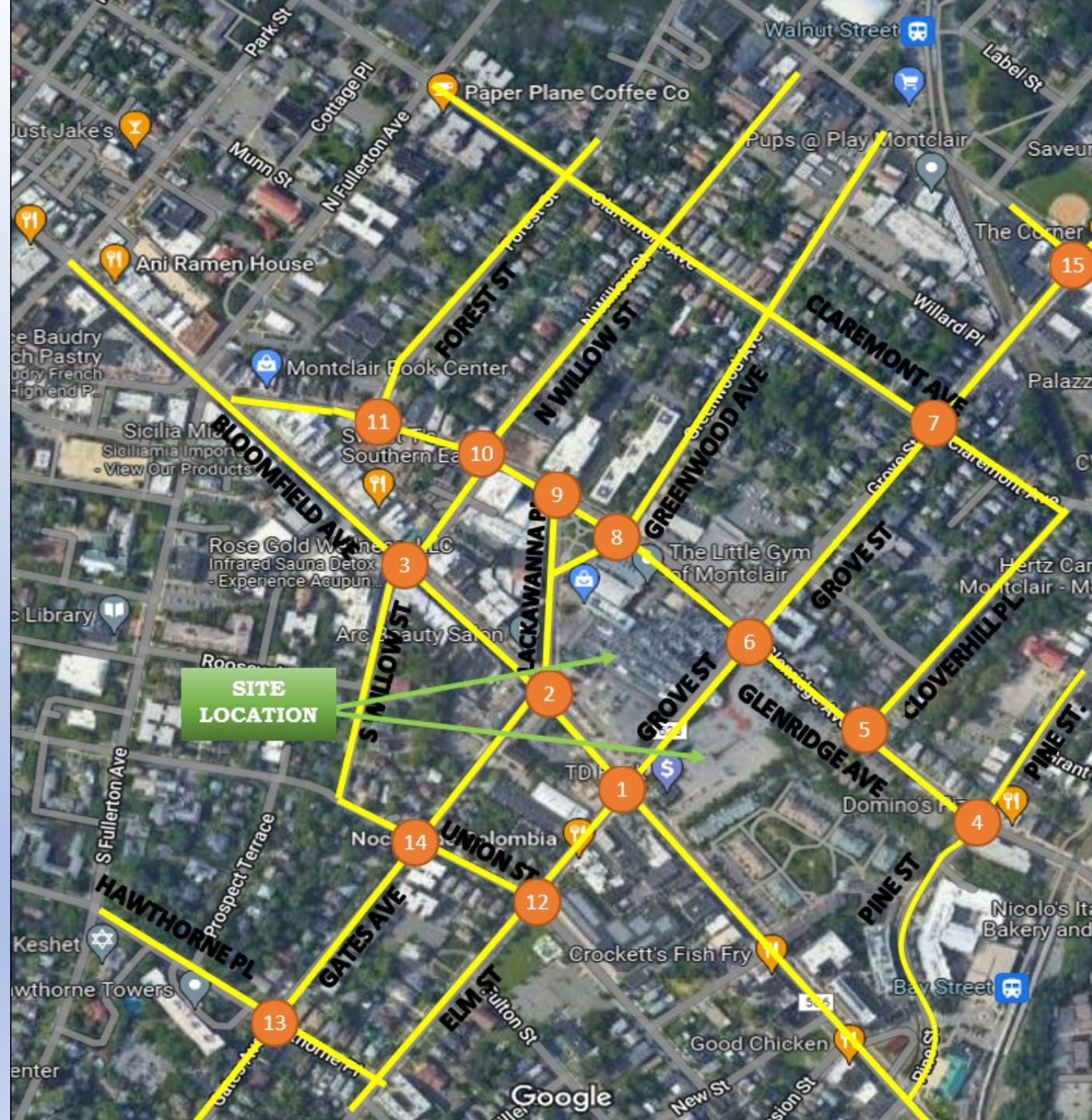
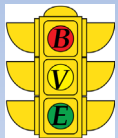
Agenda

- Study Area
- Existing Conditions
 - Volumes
 - Levels of Service
- No Build Conditions
 - Background Growth Rate & Committed Developments
 - Levels of Service
- Development Plan
 - Trip Generation
- Full Build Conditions
 - Volumes
 - Levels of Service
- Mitigation
 - Recommended Improvements
 - Levels of Service
 - Concept Plans



Study Area

1. Bloomfield Ave (CR 506) & Grove St (CR 623)/ Elm St (CR 668)
2. Bloomfield Ave (CR 506) & Lackawanna Pl/ Gates Ave
3. Bloomfield Ave (CR 506) & Willow St
4. Glenridge Ave & Pine St
5. Glenridge Ave & Cloverhill Pl
6. Grove St (CR 623) & Glenridge Ave
7. Grove St (CR 623) & Claremont Ave
8. Glenridge Ave & Greenwood Ave
9. Glenridge Ave & Lackawanna Pl
10. Glenridge Ave & Willow St
11. Glenridge Ave & Forest St
12. Union Ave/Washington St & Elm St
13. Gates Ave & Hawthorne Pl
14. Gates Ave & Union St
15. Grove St & Walnut St



Existing Volumes

Traffic Counts Conducted

Thursday, January 5th, 2023 from 7:00 AM to 9:00 AM

Thursday, January 5th, 2023 from 2:00 PM to 6:00 PM

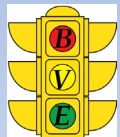
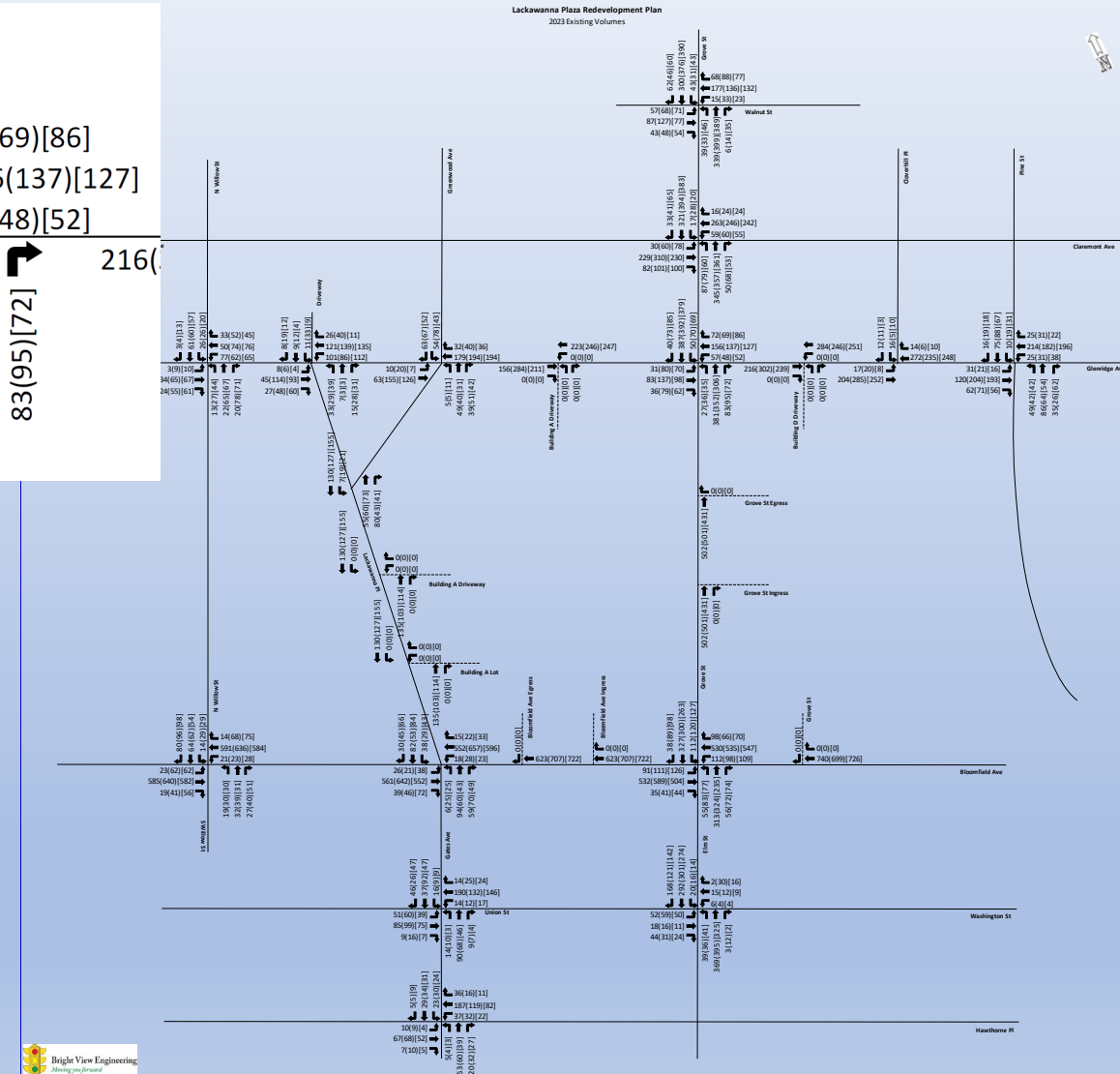
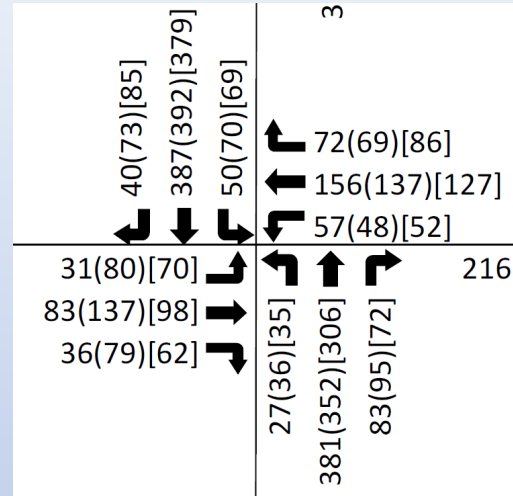
Saturday, January 7th, 2023 from 10:00 AM to 2:00 PM

Resulting System Wide Peak Hours

Weekday Morning Peak Hour: 7:45 AM-8:45 AM

Weekday Evening Peak Hour: 5:00 PM-6:00 PM

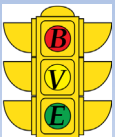
Saturday Mid-day Peak Hour: 1:00 PM-2:00 PM



Capacity Analysis / Levels of Service

Highway Capacity Manual, 6th Ed.
Signalized / Unsignalized LOS/Delay Criteria

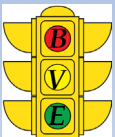
Level of Service	Average Control Delay (sec/veh)	
	Signalized Intersection	Unsignalized Intersection
A	< 10	< 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50



Capacity Analysis / Levels of Service

2023 Existing Conditions

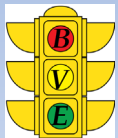
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Grove St/Elm St	EBL	C/24.3	B/16.2	B/15.6
	EBTR	D/44.0	C/25.5	C/22.6
	WBL	C/20.2	C/22.3	B/18.9
	WBTR	C/34.4	D/38.9	C/33.3
	NBL	C/23.2	C/21.6	C/25.2
	NBTR	D/48.5	D/44.0	D/48.0
	SBL	C/31.5	C/24.6	C/27.7
	SBTR	D/46.1	D/41.1	E/56.8
	Overall	D/39.4	C/33.6	C/34.2
Bloomfield Ave & Lackawanna Pl/ Gates Ave	EBTR	A/9.7	B/12.4	A/6.9
	WBL	A/3.4	A/3.4	A/3.6
	WBTR	A/9.7	A/5.1	A/5.0
	NBLTR	D/36.9	C/34.7	C/29.9
	SBL	D/39.1	D/38.1	D/36.8
	SBTR	C/34.9	C/26.8	C/31.9
	Overall	B/15.1	B/12.7	B/10.9



Capacity Analysis / Levels of Service

2023 Existing Conditions

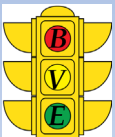
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Willow St	EBL	B/15.1	A/7.9	B/17.2
	EBTR	B/16.7	A/9.7	C/20.6
	WBLT	C/27.4	A/0.9	A/7.2
	WBTR	C/27.9	A/1.1	A/7.8
	NBL	C/32.5	D/45.3	C/28.6
	NBTR	C/26.7	D/37.2	C/23.2
	SBLTR	D/39.9	D/53.4	D/35.2
	Overall	C/24.3	B/12.5	B/17
Glenridge Ave & Pine St	EBLTR	A/0.5	A/0.6	A/0.5
	WBLTR	A/8.6	A/8.4	A/8.5
	NBL	C/24.8	C/24.7	C/24.6
	NBTR	C/26.9	C/25.7	C/26.7
	SBLTR	C/25.9	C/26.5	C/26.2
	Overall	B/12.6	B/11.2	B/11.9
Glenridge Ave & Cloverhill Pl	EB	A/0.6	A/0.5	A/0.2
	WB	A/0.0	A/0.0	A/0.0
	SB	B/13.0	B/10.7	B/12.0
Grove St & Glenridge Ave	EBL	C/22.3	C/24.6	C/24.0
	EBTR	C/23.6	C/26.5	C/24.7
	WBLTR	B/16.4	B/15.8	B/19.8
	NBLTR	B/15.7	B/15.4	B/14.1
	SBLTR	A/2.2	A/2.7	A/2.7
	Overall	B/12.1	B/13.1	B/12.6



Capacity Analysis / Levels of Service

2023 Existing Conditions

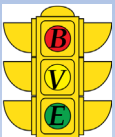
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Grove St & Claremont Ave	EBL	C/32.0	C/32.3	C/33.1
	EBTR	C/30.6	D/36.0	C/30.4
	WBL	D/37.2	D/43.7	D/36.0
	WBTR	C/28.3	C/27.2	C/27.0
	NBLTR	A/2.7	A/2.4	A/1.9
	SBLTR	B/13.6	B/14.3	B/14.6
	Overall	B/17.6	B/19.5	B/17.7
Glenridge Ave & Greenwood Ave	EB	A/1.1	A/0.9	A/0.4
	WB	A/0.0	A/0.0	A/0.0
	NB	B/11.3	B/12.1	B/11.3
	SB	B/12.7	C/15.4	B/12.3
Glenridge Ave & Lackawanna Pl/Driveway	EB	A/0.8	A/0.3	A/0.2
	WB	A/3.1	A/2.5	A/3.4
	NB	B/13.8	B/12.7	B/13.5
	SB	B/13.3	B/14.1	B/12.6
Glenridge Ave & Willow St	EB	A/7.6	A/8.6	A/8.9
	WB	A/8.5	A/9.3	A/9.6
	NB	A/7.8	A/9.0	A/9.5
	SB	A/8.2	A/8.8	A/8.9
Glenridge Ave & Forest St	EB	A/1.7	A/1.6	A/1.4
	SB	A/9.2	A/9.8	B/10.4



Capacity Analysis / Levels of Service

2023 Existing Conditions

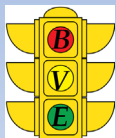
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Elm St & Union St/Washington St	EBLTR	C/25.7	C/25.4	C/25.1
	WBLTR	C/23.2	C/23.8	C/23.4
	NBLTR	B/10.4	B/10.7	B/10.2
	SBLTR	B/11.8	B/10.9	B/11.2
	Overall	B/13	B/12.9	B/12.5
Gates Ave & Hawthorne Pl	EB	B/11.7	B/11.5	B/10.6
	WB	B/14.8	B/12.7	B/11.1
	NB	A/0.5	A/0.3	A/0.3
	SB	A/3.0	A/3.3	A/2.8
Gates Ave & Union St	EB	A/9.4	A/9.3	A/8.7
	WB	B/10.3	A/9.1	A/9.1
	NB	A/9.3	A/8.7	A/8.3
	SB	A/8.8	A/9.0	A/8.4
Grove St & Walnut St	EBLTR	B/16.3	B/17.2	B/16.5
	WBLTR	B/17.9	B/17.6	B/17.0
	NBLTR	B/11.9	B/12.5	B/13.0
	SBLTR	B/12.7	B/12.7	B/13.5
	Overall	B/14.1	B/14.3	B/14.4



2026 No Build Conditions

- **2.00%** background growth rate (per current NJDOT annual background growth rates for Urban Minor Arterial in Essex County) over **3 years** yields the base “No Build” volumes
- Additional traffic from the following **known developments** were then added to obtain the 2026 No Build traffic volumes →

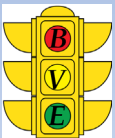
- 10 Elm Street Mixed-Use Development (Montclair) – 20 dwelling units and 1,100-sf of office space.
- 161 – 167 Glenridge Avenue Mixed-Use Development (Montclair) – 17 dwelling units and 1,200-sf of retail space.
- 172 Glenridge Avenue Mixed-Use Development (Montclair) – 17 dwelling units and 1,885-sf of retail space.
- 369-371 Bloomfield Avenue Residential Development (Montclair) – 11 dwelling units.
- 103 Grove Street Self-Storage Facility (Montclair) – 73,640-sf self-storage space with 665 storage units.
- 37 Orange Road Mixed-Use Development (Montclair) – 40 dwelling units and 2,235-sf retail space.
- 59 Church Street Mixed-Use Development (Montclair) – 74 dwelling units and 3,936-sf retail space.
- 6 Gates Avenue Mixed-Use Development (Montclair) – 13,769-sf of office space and 4,854-sf of retail space.
- 610-612, 616 & 622 Bloomfield Avenue, 18 Ward Street, & 7 Farrand Street Mixed-Use Development (Bloomfield) – 15 single-family townhouses and a 6-8 story building with 210 apartment units and 7,283-sf of retail space.
- 656-662 Bloomfield Avenue Mixed-Use Development (Bloomfield) – 21 dwelling units and 1,423-sf of commercial space.



Capacity Analysis / Levels of Service

2026 No Build Conditions

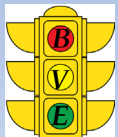
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Grove St/Elm St	EBL	C/28.0	C/20.8	C/21.6
	EBTR	D/54.3	C/28.2	C/26.1
	WBL	C/21.6	C/24.2	C/21.1
	WBTR	D/36.4	D/41.8	D/37.2
	NBL	C/25.4	C/23.6	C/24.9
	NBTR	E/56.7	D/52.9	D/48.6
	SBL	D/41.0	C/30.2	C/28.3
	SBTR	D/53.7	D/45.8	E/58.2
	Overall	D/45.8	D/37.9	D/36.9
Bloomfield Ave & Lackawanna Pl/Gates Ave	EBTR	B/11	B/12.1	A/7.2
	WBL	A/3.6	A/3.3	A/3.6
	WBTR	A/9.8	A/5.1	A/4.9
	NBLTR	D/39.1	D/36.3	C/30.3
	SBL	D/40.2	D/38.7	D/37.2
	SBTR	D/36	C/28	C/32.8
	Overall	B/15.8	B/12.9	B/11.0



Capacity Analysis / Levels of Service

2026 No Build Conditions

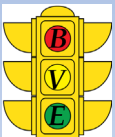
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Willow St	EBL	B/15.5	A/8.8	B/17.4
	EBTR	B/17.2	B/11.1	C/21.4
	WBLT	C/28.2	A/1.2	A/7.8
	WBTR	C/28.8	A/1.4	A/8.5
	NBL	C/32.8	D/43.9	C/28.9
	NBTR	C/26.9	D/35.7	C/23.4
	SBLTR	D/41.0	D/52.5	D/36.1
	Overall	C/25.1	B/13.2	B/17.7
Glenridge Ave & Pine St	EBLTR	A/0.5	A/0.7	A/0.6
	WBLTR	A/8.8	A/8.6	A/8.7
	NBL	C/25.0	C/24.9	C/24.8
	NBTR	C/27.2	C/25.9	C/26.9
	SBLTR	C/26.0	C/26.7	C/26.5
	Overall	B/12.7	B/11.2	B/12
Glenridge Ave & Cloverhill Pl	EB	A/0.7	A/0.5	A/0.3
	WB	A/0.0	A/0.0	A/0.0
	SB	B/13.6	B/11.1	B/12.4
Grove St & Glenridge Ave	EBL	C/22.7	C/26.0	C/24.8
	EBTR	C/23.9	C/27.1	C/25.1
	WBLTR	B/17.6	B/17.5	C/20.7
	NBLTR	B/16.8	B/16.9	B/15.0
	SBLTR	A/3.0	A/4.2	A/3.6
	Overall	B/12.9	B/14.4	B/13.4



Capacity Analysis / Levels of Service

2026 No Build Conditions

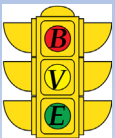
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Grove St & Claremont Ave	EBL	C/33.5	C/34.2	D/35.1
	EBTR	C/32.3	D/40.5	C/32.2
	WBL	D/40.3	D/51.9	D/39.1
	WBTR	C/29.2	C/28.0	C/27.7
	NBLTR	A/3.8	A/3.5	A/2.5
	SBLTR	B/14.6	B/15.3	B/15.5
	Overall	B/18.7	C/21.5	B/18.7
Glenridge Ave & Greenwood Ave	EB	A/1.1	A/0.9	A/0.4
	WB	A/0.0	A/0.0	A/0.0
	NB	B/11.7	B/12.7	B/11.7
	SB	B/13.5	C/17.3	B/12.9
Glenridge Ave & Lackawanna Pl/Driveway	EB	A/0.8	A/0.3	A/0.2
	WB	A/3.1	A/2.4	A/3.3
	NB	C/15.0	B/13.5	B/14.6
	SB	B/14.2	C/15.4	B/13.5
Glenridge Ave & Willow St	EB	A/7.8	A/9.0	A/9.3
	WB	A/8.7	A/9.9	B/10.2
	NB	A/7.9	A/9.5	B/10.1
	SB	A/8.4	A/9.1	A/9.2
Glenridge Ave & Forest St	EB	A/1.8	A/1.6	A/1.4
	SB	A/9.3	B/10.0	B/10.6



Capacity Analysis / Levels of Service

2026 No Build Conditions

Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Elm St & Union St/Washington St	EBLTR	C/26.6	C/26.6	C/25.7
	WBLTR	C/23.3	C/23.9	C/23.5
	NBLTR	B/10.8	B/11.3	B/10.6
	SBLTR	B/12.7	B/11.6	B/11.8
	Overall	B/13.9	B/13.8	B/13.2
Gates Ave & Hawthorne Pl	EB	B/12.3	B/11.9	B/10.9
	WB	C/16.3	B/13.4	B/11.5
	NB	A/0.5	A/0.4	A/0.4
	SB	A/3.0	A/3.1	A/2.8
Gates Ave & Union St	EB	A/10.0	A/10.0	A/9.0
	WB	B/11.2	A/9.8	A/9.6
	NB	A/9.8	A/9.1	A/8.6
	SB	A/9.4	A/9.6	A/8.8
Grove St & Walnut St	EBLTR	B/16.7	B/17.6	B/16.8
	WBLTR	B/18.3	B/18.0	B/17.4
	NBLTR	B/12.6	B/13.5	B/13.9
	SBLTR	B/13.9	B/13.7	B/14.6
	Overall	B/14.8	B/15	B/15.1



Assumed Development

West Site

39,671 SF – Grocery Space (LUC 821)

35,440 SF – Retail Space (LUC 821)

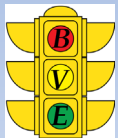
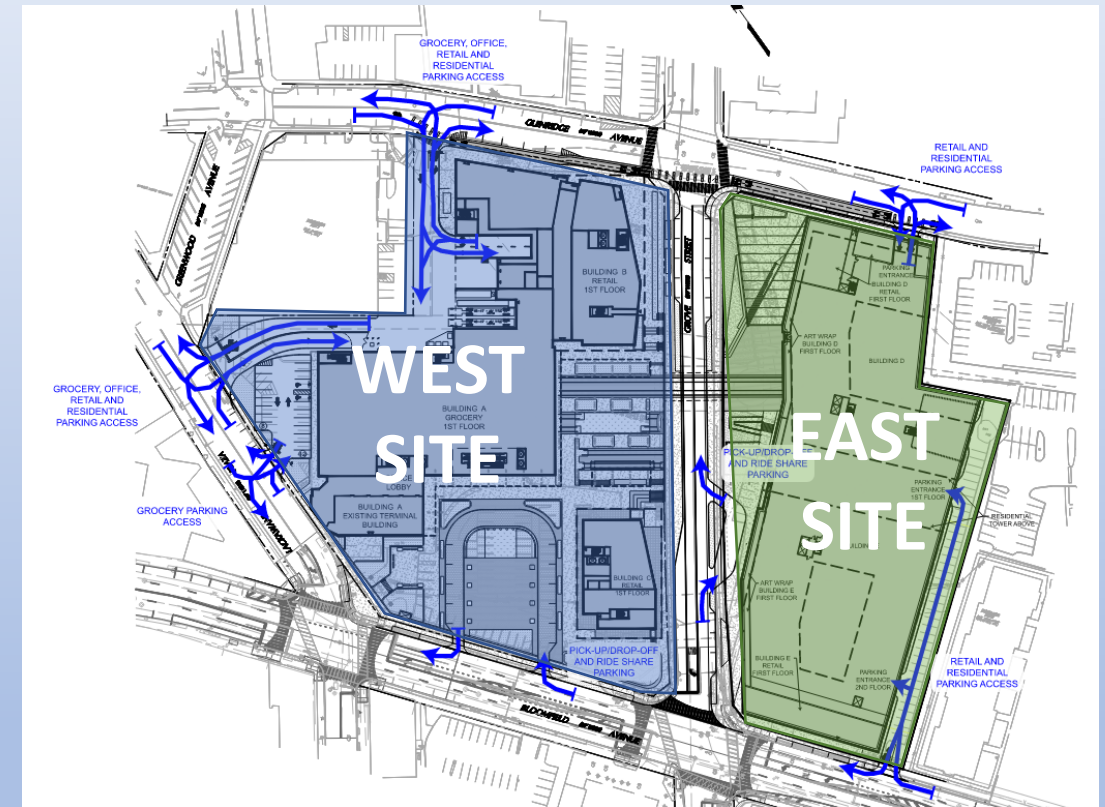
98,427 SF – Office Space (LUC 710)

86 Dwelling Units – Multi-family Residential (LUC 220)

East Site

12,078 SF – Retail Space (LUC 822)

284 Dwelling Units – Multi-family Residential (LUC 220)



Total Site Generated Trips

Total Trips Generated

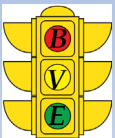
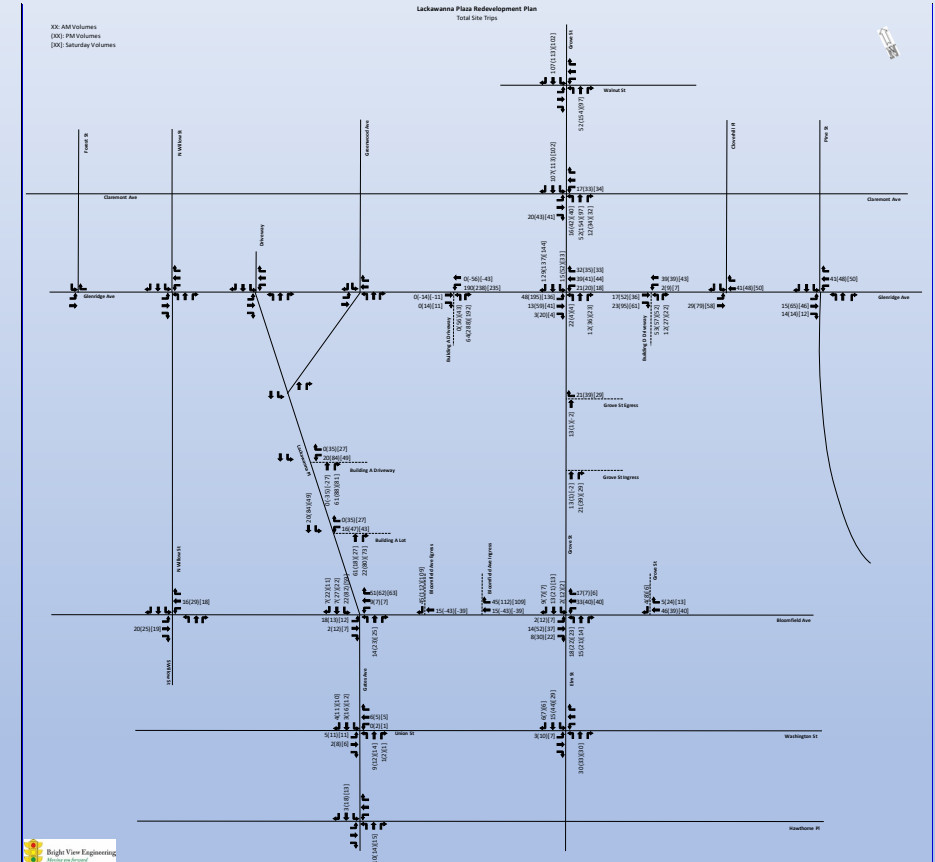
West Site

LUC	Unit	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
710	98,427 SF	145	20	165	28	136	164	28	24	52
220	86 DU	9	24	33	31	21	52	18	17	35
821	75,111 SF	164	101	265	334	361	695	355	341	696
Total		318	145	463	393	518	911	401	382	783

East Site

LUC	Unit	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
220	284 DU	31	77	108	104	69	173	58	58	116
822	12,078 SF	20	13	33	45	44	99	40	39	79
Total		51	90	141	149	113	272	98	97	195

Source: ITE Trip Generation Manual, 11th Edition



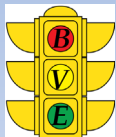
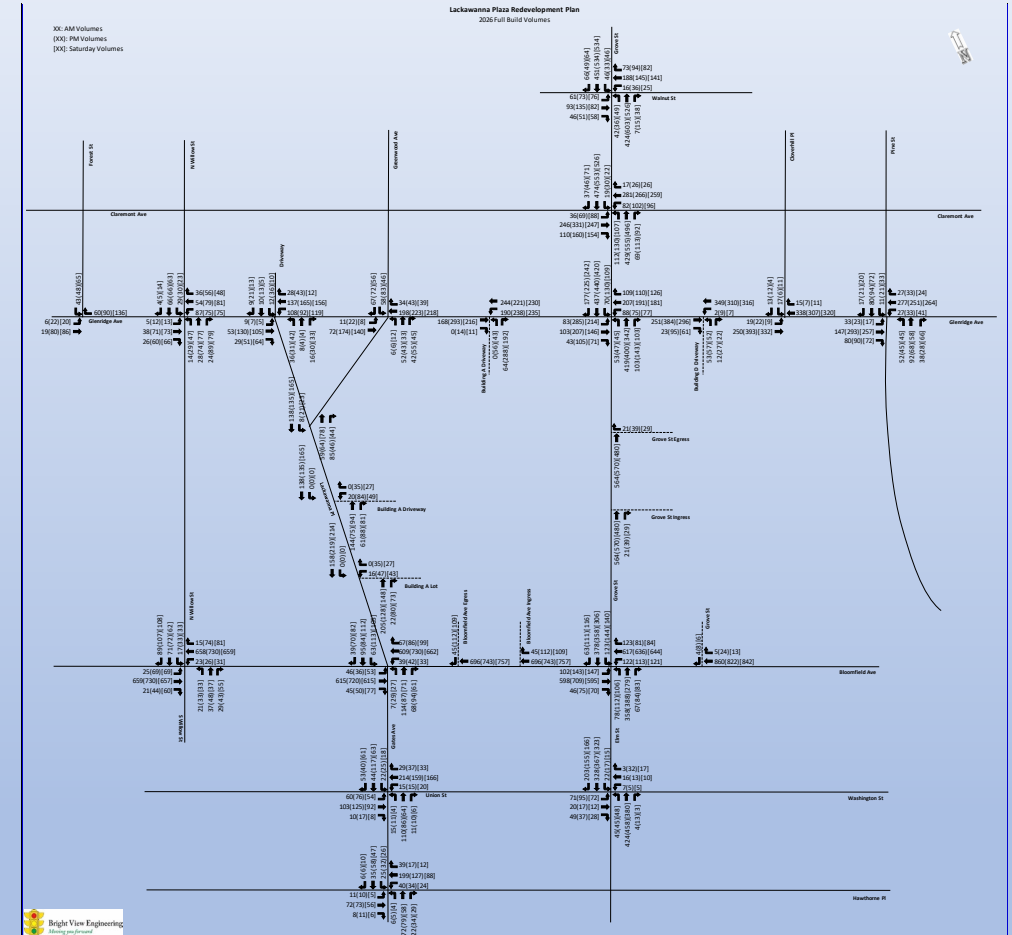
Full Build Volumes

Full Build Volumes =

No Build Volumes

+

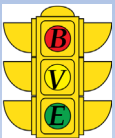
Proposed Site Generated Trips



Capacity Analysis / Levels of Service

2026 Full Build Conditions

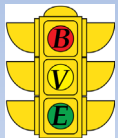
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Grove St/Elm St	EBL	C/28.5	C/25.6	C/25.8
	EBTR	D/54.0	C/34.8	C/29.7
	WBL	C/22.0	C/26.0	C/22.5
	WBTR	D/38.2	D/44.3	D/39.7
	NBL	C/30.7	C/29.2	C/28.2
	NBTR	E/61.1	E/58.8	D/48.6
	SBL	D/46.4	D/36.8	C/28.1
	SBTR	E/58.5	D/49.6	E/59.1
	Overall	D/48.1	D/42.4	D/38.9
Bloomfield Ave & Lackawanna Pl/Gates Ave	EBTR	B/11.2	B/12.8	A/7.4
	WBL	A/3.7	A/4	A/4.1
	WBTR	A/9.8	A/6.4	A/6.2
	NBLTR	D/41.4	D/40.7	D/35.1
	SBL	D/43.9	D/52.7	D/43.3
	SBTR	D/36.5	C/33.7	D/35.7
	Overall	B/16.7	B/16.5	B/13.7



Capacity Analysis / Levels of Service

2026 Full Build Conditions

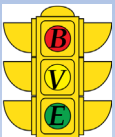
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Willow St	EBL	B/15.6	A/8.8	B/17.4
	EBTR	B/17.4	B/11.2	C/21.6
	WBLT	C/28.4	A/1.2	A/7.9
	WBTR	C/29.1	A/1.5	A/8.6
	NBL	C/32.8	D/43.9	C/28.9
	NBTR	C/26.9	D/35.7	C/23.4
	SBLTR	D/41.0	D/52.5	D/36.1
	Overall	C/25.2	B/13.1	B/17.7
Glenridge Ave & Pine St	EBLTR	A/0.6	A/1.0	A/0.7
	WBLTR	A/9.2	A/9.0	A/9.1
	NBL	C/25.0	C/24.9	C/24.8
	NBTR	C/27.2	C/25.9	C/26.9
	SBLTR	C/26.0	C/26.7	C/26.5
	Overall	B/12.3	B/10.5	B/11.4
Glenridge Ave & Cloverhill Pl	EB	A/0.6	A/0.4	A/0.2
	WB	A/0.0	A/0.0	A/0.0
	SB	B/14.6	B/11.9	B/13.5
Grove St & Glenridge Ave	EBL	C/28.6	F/218.9	E/69.1
	EBTR	C/24.3	C/30.6	C/26.5
	WBLTR	C/28.5	E/62.0	D/36.0
	NBLTR	B/18.5	B/19.6	B/15.7
	SBLTR	A/8.1	D/47.2	B/14.3
	Overall	B/17.7	E/61.2	C/25.6



Capacity Analysis / Levels of Service

2026 Full Build Conditions

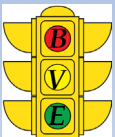
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Grove St & Claremont Ave	EBL	C/33.5	C/34.2	D/35.1
	EBTR	C/34.1	D/50.3	D/35.9
	WBL	D/46.1	F/108.0	D/50.8
	WBTR	C/29.2	C/28.0	C/27.7
	NBLTR	A/10.0	D/40.7	B/10.1
	SBLTR	B/16.9	B/18.5	B/17.8
	Overall	C/21.4	D/37.9	C/22.1
Glenridge Ave & Greenwood Ave	EB	A/1.1	A/0.9	A/0.4
	WB	A/0.0	A/0.0	A/0.0
	NB	B/11.7	B/12.7	B/11.7
	SB	B/13.5	C/17.3	B/12.9
Glenridge Ave & Lackawanna Pl/Driveway	EB	A/0.8	A/0.3	A/0.2
	WB	A/3.1	A/2.4	A/3.3
	NB	C/15.0	B/13.5	B/14.6
	SB	B/14.2	C/15.4	B/13.5
Glenridge Ave & Willow St	EB	A/7.8	A/9.0	A/9.3
	WB	A/8.7	A/9.9	B/10.2
	NB	A/7.9	A/9.5	B/10.1
	SB	A/8.4	A/9.1	A/9.2
Glenridge Ave & Forest St	EB	A/1.8	A/1.6	A/1.4
	SB	A/9.3	B/10.0	B/10.6



Capacity Analysis / Levels of Service

2026 Full Build Conditions

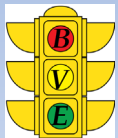
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Elm St & Union St/Washington St	EBLTR	C/26.7	C/26.9	C/26.0
	WBLTR	C/23.3	C/23.9	C/23.5
	NBLTR	B/11.1	B/11.7	B/11.0
	SBLTR	B/13.1	B/12.4	B/12.4
	Overall	B/14.1	B/14.3	B/13.6
Gates Ave & Hawthorne Pl	EB	B/12.5	B/12.4	B/11.2
	WB	C/16.8	B/14.0	B/11.8
	NB	A/0.4	A/0.3	A/0.3
	SB	A/2.9	A/2.5	A/2.3
Gates Ave & Union St	EB	B/10.3	B/10.8	A/9.5
	WB	B/11.7	B/10.4	B/10.1
	NB	B/10.1	A/9.6	A/8.9
	SB	A/9.6	B/10.3	A/9.3
Grove St & Walnut St	EBLTR	B/16.7	B/17.6	B/16.8
	WBLTR	B/18.3	B/18.0	B/17.3
	NBLTR	B/13.6	B/17.5	B/17.2
	SBLTR	B/17.0	B/16.4	B/18.4
	Overall	B/16.1	B/17.2	B/17.6



Capacity Analysis / Levels of Service

2026 Full Build Conditions

Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Bloomfield Ave Site Egress Driveway	EB	A/0.0	A/0.0	A/0.0
	WB	A/0.0	A/0.0	A/0.0
	SB	B/11.3	B/12.6	B/12.6
Bloomfield Ave & Building E Driveway	EB	A/0.0	A/0.0	A/0.0
	WB	A/0.0	A/0.0	A/0.0
	SB	B/11.7	B/11.7	B/11.7
Grove St & Grove St Site Egress Driveway	WB	B/12.7	B/13.1	B/11.9
	NB	A/0.0	A/0.0	A/0.0
	SB	A/0.0	A/0.0	A/0.0
Glenridge Ave & Building D Driveway	EB	A/0.0	A/0.0	A/0.0
	WB	A/0.0	A/0.2	A/0.2
	NB	B/14.3	C/17.0	B/14.7
Glenridge Ave & Building B Driveway	EB	A/0.0	A/0.0	A/0.0
	WB	A/3.5	A/4.5	A/4.2
	NB	A/9.6	D/33.6	C/18.2
Lackawanna Pl & Building A Driveway	WB	B/10.7	B/10.7	B/10.5
	NB	A/0.0	A/0.0	A/0.0
	SB	A/0.0	A/0.0	A/0.0
Lackawanna Pl & Building A Parking Lot	WB	B/11.2	B/11.1	B/11.2
	NB	A/0.0	A/0.0	A/0.0
	SB	A/0.0	A/0.0	A/0.0



Queuing / Operational Review



Recommended Improvements

Bloomfield Ave & Grove St/Elm St

- Eliminate 2 parking spaces and restripe Elm Street Approach
- Timing Modifications

Grove St & Glenridge Ave

- Replace Traffic Signal and add lead left-turn phase for Glenridge Ave
- Add dedicated left-turn lanes to SB, WB, & NB approaches

Bloomfield Ave & Willow St

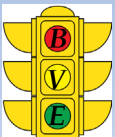
- Timing Modifications (Modify Offset)

Grove St & Claremont Ave

- Replace Traffic Signal
- Remove parking on Grove Street and replace with dedicated left-turn lanes on SB & NB approaches

Grove St & Walnut St

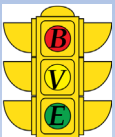
- Replace Traffic Signal
- Add dedicated left-turn lanes to SB & NB approaches



Capacity Analysis / Levels of Service

2026 Full Build Conditions with Mitigation

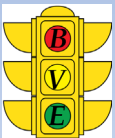
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Grove St/Elm St	EBL	B/19.2	C/29.4	C/27.0
	EBTR	C/25.0	C/32.0	C/32.9
	WBL	C/25.1	C/32.0	C/22.7
	WBTR	D/41.7	D/41.1	D/38.2
	NBL	C/25.4	C/29.5	C/32.3
	NBTR	D/52.7	D/46.5	D/44.4
	SBL	C/34.8	D/37.0	C/32.3
	SBTR	D/49.2	D/39.7	D/52.2
	Overall	D/38.3	D/37.8	D/38.1



Capacity Analysis / Levels of Service

2026 Full Build Conditions with Mitigation

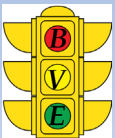
Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Bloomfield Ave & Willow St	EBL	B/14.3	A/8.8	B/17.4
	EBTR	B/17.4	B/11.3	C/21.5
	WBLT	B/14.1	A/1.2	A/7.9
	WBTR	B/14.4	A/1.5	A/8.6
	NBL	C/32.8	D/43.9	C/28.9
	NBTR	C/26.9	D/35.7	C/23.4
	SBLTR	D/41.0	D/52.5	D/36.1
	Overall	B/19.1	B/13.1	B/17.7
Grove St & Glenridge Ave	EBL	C/20.5	D/41.8	D/49.1
	EBTR	B/18.3	C/25.4	C/24.1
	WBL	B/18.3	C/25.4	C/24.1
	WBTR	B/18.3	D/49.0	D/46.6
	NBL	C/34.4	C/28.6	B/12.2
	NBTR	C/27.8	C/25.5	B/17.0
	SBL	B/19.9	C/24.9	A/5.6
	SBTR	C/20.8	B/17.6	A/7.2
	Overall	C/22.8	C/29.6	C/23



Capacity Analysis / Levels of Service

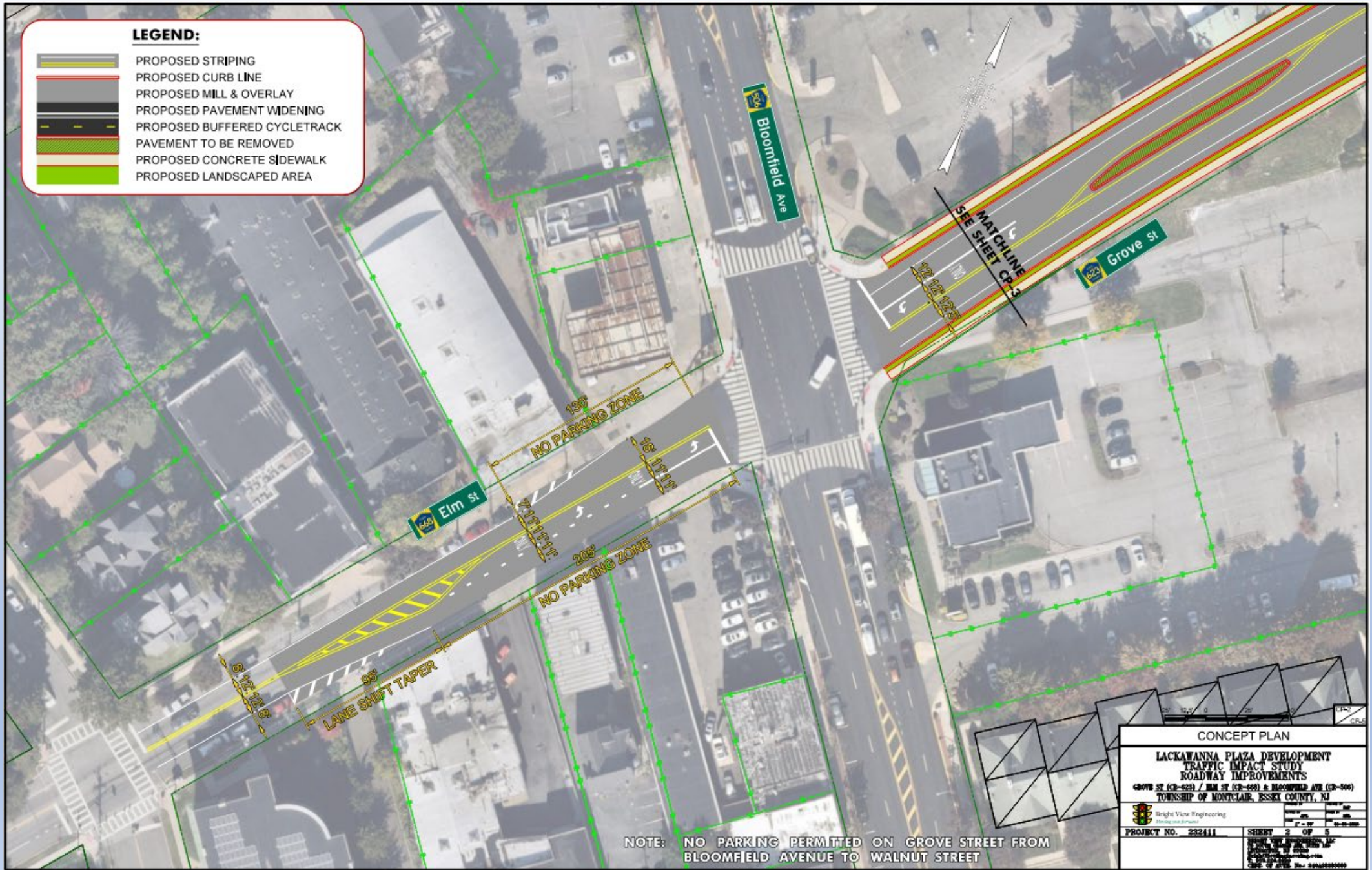
2026 Full Build Conditions with Mitigation

Intersection	Movement	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Mid-Day Peak Hour
Grove St & Claremont Ave	EBL	C/33.5	C/28.8	D/35.1
	EBTR	C/34.1	C/34.3	D/35.9
	WBL	D/46.1	D/54.1	D/50.8
	WBTR	C/29.2	C/23.4	C/27.7
	NBL	A/8.6	B/17.2	A/9.4
	NBTR	A/2.5	A/7.1	A/2.9
	SBL	A/9.7	B/13.3	A/9.8
	SBTR	B/16.7	C/21.8	B/17.5
	Overall	B/19.2	C/21.7	B/20.0
Grove St & Walnut St	EBLTR	B/16.4	B/17.6	B/16.8
	WBLTR	B/17.9	B/18.0	B/17.4
	NBL	B/18.2	B/19.6	C/20.9
	NBTR	B/12.6	B/17.0	B/15.3
	SBL	B/15.5	C/20.6	B/19.2
	SBTR	B/14.6	B/16.1	B/16.5
	Overall	B/15.0	B/17.1	B/16.5



LEGEND:

- PROPOSED STRIPING
- PROPOSED CURB LINE
- PROPOSED MILL & OVERLAY
- PROPOSED PAVEMENT WIDENING
- PROPOSED BUFFERED CYCLETRACK
- PAVEMENT TO BE REMOVED
- PROPOSED CONCRETE SIDEWALK
- PROPOSED LANDSCAPED AREA

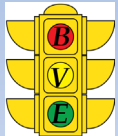


NOTE: NO PARKING PERMITTED ON GROVE STREET FROM BLOOMFIELD AVENUE TO WALNUT STREET

CONCEPT PLAN

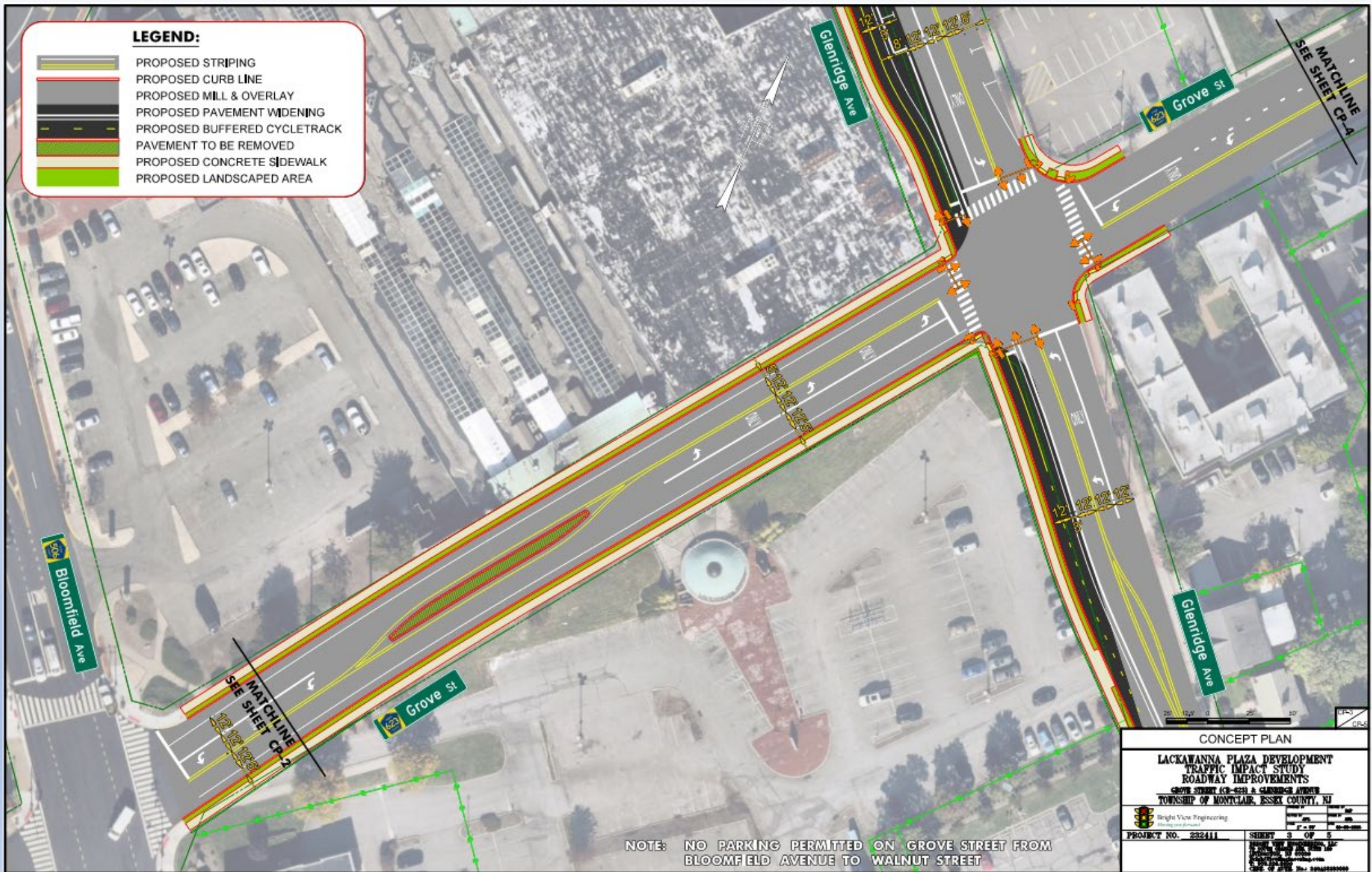
LACKAWANNA PLAZA DEVELOPMENT
TRAFFIC IMPACT STUDY
ROADWAY IMPROVEMENTS
GROVE ST (CR-623) / ELM ST (CR-620) & BLOOMFIELD AVE (CR-504)
TOWNSHIP OF MONTCLAIR, ESSEX COUNTY, NJ

 Bright View Engineering <i>(Seal and Stamp)</i>		Scale: 1" = 30'	Sheet: 2 OF 5
PROJECT NO. 232411		DATE: 08-20-2023	DATE: 08-20-2023
SHEET 2 OF 5		DRAWN BY: [Name] CHECKED BY: [Name] DATE: 08-20-2023	



LEGEND:

- PROPOSED STRIPING
- PROPOSED CURB LINE
- PROPOSED MILL & OVERLAY
- PROPOSED PAVEMENT WIDENING
- PROPOSED BUFFERED CYCLETRACK
- PAVEMENT TO BE REMOVED
- PROPOSED CONCRETE SIDEWALK
- PROPOSED LANDSCAPED AREA

**CONCEPT PLAN**

LACKAWANNA PLAZA DEVELOPMENT
TRAFFIC IMPACT STUDY
ROADWAY IMPROVEMENTS
GROVE STREET (CR-620) & GLENRIDGE AVENUE
TOWNSHIP OF MONTCLAIR, ESSEX COUNTY, NJ



BrightView Engineering
Montclair, NJ

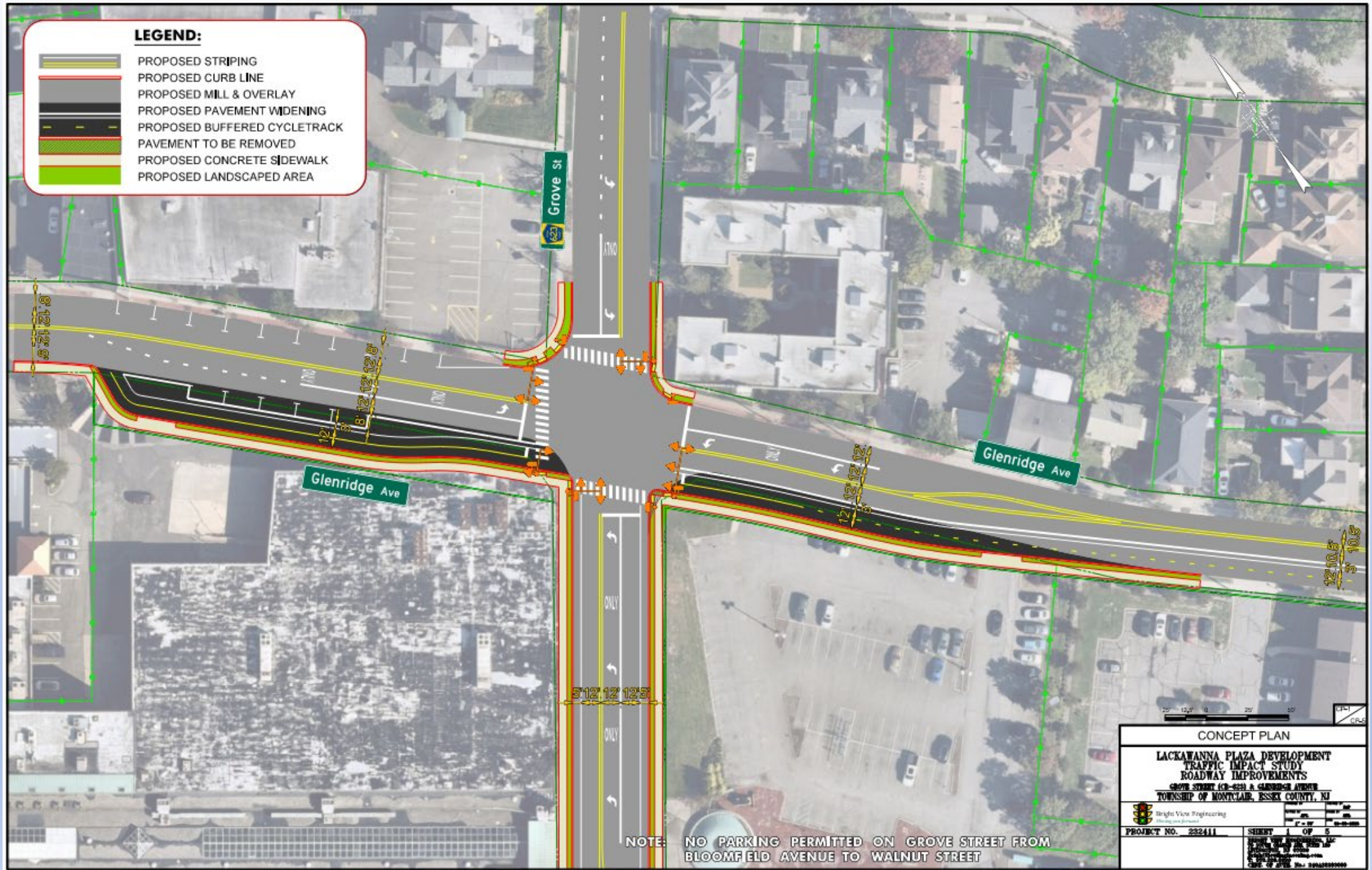
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SHEET 3 OF 5

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CHECKED BY: [Signature]
DATE: 08/11/2023

LEGEND:

- PROPOSED STRIPING
- PROPOSED CURB LINE
- PROPOSED MILL & OVERLAY
- PROPOSED PAVEMENT WIDENING
- PROPOSED BUFFERED CYCLETRACK
- PAVEMENT TO BE REMOVED
- PROPOSED CONCRETE SIDEWALK
- PROPOSED LANDSCAPED AREA



NOTE: NO PARKING PERMITTED ON GROVE STREET FROM BLOOMFIELD AVENUE TO WALNUT STREET

CONCEPT PLAN

LACKAWANNA PLAZA DEVELOPMENT
TRAFFIC IMPACT STUDY
ROADWAY IMPROVEMENTS
GROVE STREET (CB-623) & GLENRIDGE AVENUE
TOWNSHIP OF MONTCLAIR, ESSEX COUNTY, NJ

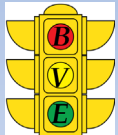


Bright View Engineering
Planning and Design

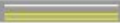



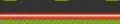
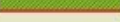


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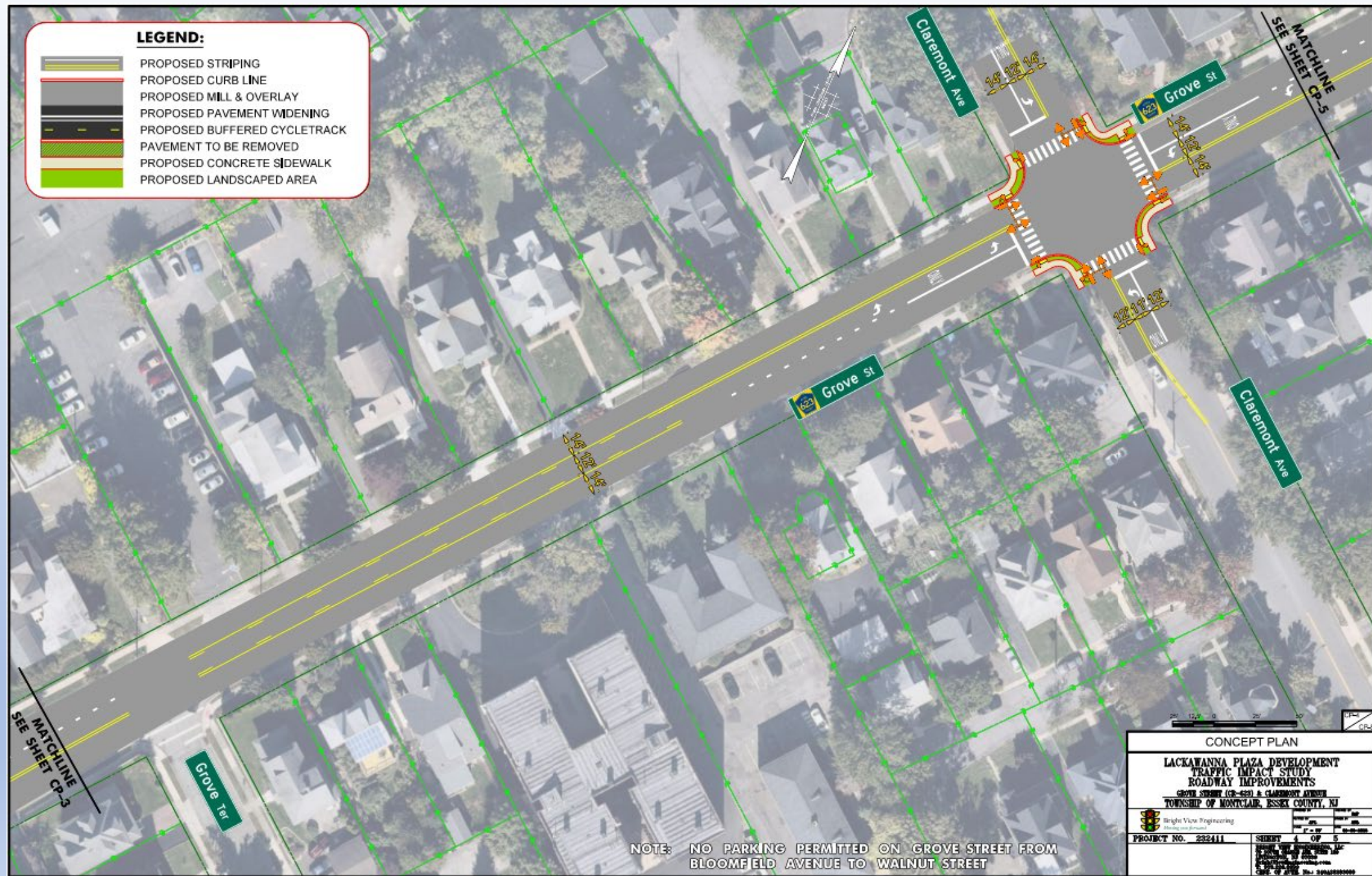
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DATE: 09/05/2024



LEGEND:

-  PROPOSED STRIPING
-  PROPOSED CURB LINE
-  PROPOSED MILL & OVERLAY
-  PROPOSED PAVEMENT WIDENING
-  PROPOSED BUFFERED CYCLETRACK
-  PAVEMENT TO BE REMOVED
-  PROPOSED CONCRETE SIDEWALK
-  PROPOSED LANDSCAPED AREA

**CONCEPT PLAN**

LACKAWANNA PLAZA DEVELOPMENT
TRAFFIC IMPACT STUDY
ROADWAY IMPROVEMENTS
GROVE STREET (CR-621) & CLAREMONT AVENUE
TOWNSHIP OF MONTCLAIR, ESSEX COUNTY, NJ






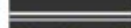
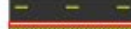



BrightView Engineering
(Planning and Design)

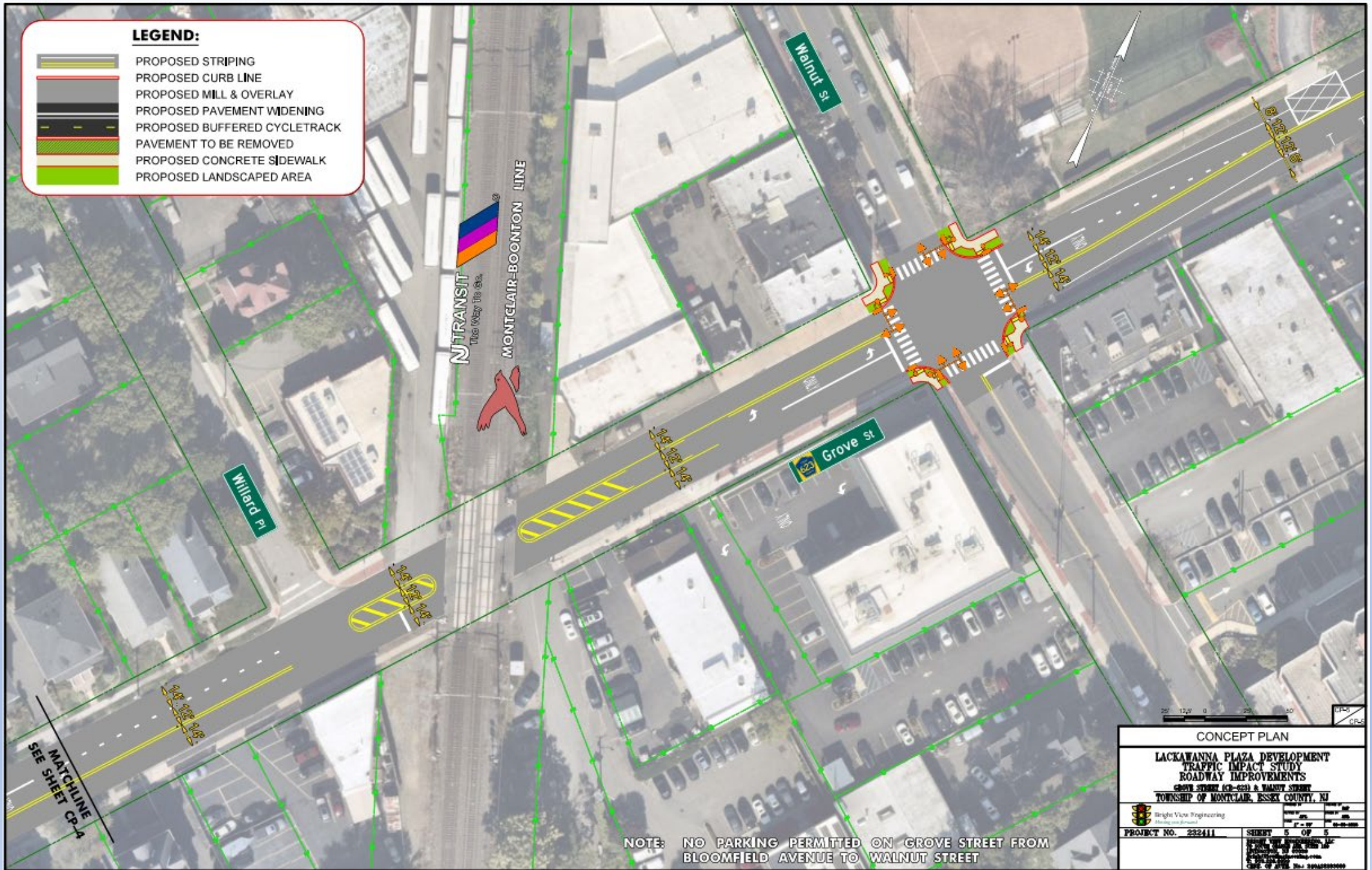
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SHEET 4 OF 5

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LEGEND:

-  PROPOSED STRIPING
-  PROPOSED CURB LINE
-  PROPOSED MILL & OVERLAY
-  PROPOSED PAVEMENT WIDENING
-  PROPOSED BUFFERED CYCLETRACK
-  PAVEMENT TO BE REMOVED
-  PROPOSED CONCRETE SIDEWALK
-  PROPOSED LANDSCAPED AREA



NOTE: NO PARKING PERMITTED ON GROVE STREET FROM BLOOMFIELD AVENUE TO WALNUT STREET

CONCEPT PLAN

**LACKAWANNA PLAZA DEVELOPMENT
TRAFFIC IMPACT STUDY
ROADWAY IMPROVEMENTS
GROVE STREET (R-620) & WALNUT STREET
TOWNSHIP OF MONTCLAIR, ESSEX COUNTY, NJ**

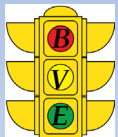


BrightView Engineering
(Planning and Design)

PROJECT NO. 232411

SHEET 5 OF 5

DATE: 08/20/2024
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CHK: [Signature]
APP: [Signature]



Questions / Comments

Please direct written comments to:

Janice Talley, PP/AICP
Director of Planning and Community Development
Township of Montclair
205 Claremont Avenue
Montclair, NJ 07042
jtalley@montclairnjusa.org

