

Analyst: JCE Inter.: AMBD-DRWY-1

Agency: JOHN COLLINS ENGINEERS, P.C. Area Type: All other areas

Date: 4/20/2007

Jurisd:

Period: WEEKDAY PEAK AM HIGHWAY HOUR

Year : 2012 BUILD TRAFFIC VOLUMES

Project ID: E/W St: NEPE		/ENUE			N/S	St: F	PROPOSI	ED SIT	TE ACC	ESS	/ WA	VERLY
		STO	GNALIZE	יואד מיז	TERSE	CTION	SIIMMAI	5 V				
	Eastbo			boun			thbour		Sou	thbo	und	
	L T	R	L L	T	R	L	T	R	L	Т	R	
No. Lanes LGConfig	1 3 L T	3 0 TR	 1 L	3 TR	0	 1 L	1 TR	0	0	1 LT	0 R	
Volume		27 10		L868	19	120	-	180	84	0	36	
Lane Width RTOR Vol	12.0 12.	. 0 0	12.0 1 		0	12.0)) (12.0	0	
 Duration	0.25	Area S	 Гуре: <i>I</i>									
					perat '	ions						
Phase Combin	ation I	2	3	4	NTD	T o f ⊢	5	6	7	,	8	
EB Left Thru	7\	A			NB	Left Thru	A					
Right	A A				 	Right	A					
Peds	X	X			 	Peds	: A X					
WB Left	Λ	A			l l sb	Left	A					
Thru	А	A			 2D	Thru	A					
Right	A					Right						
Peds	X	X				Peds						
NB Right	21	21			 EB	Right						
SB Right					WB	Right						
Green	45.	0 15.0			1	5	25.0					
Yellow	3.0						3.0					
All Red	2.0						2.0					
							Сус	le Ler	ngth:	100.	0	secs
		_Intersed					_					
Appr/ Lane		145 240	Rat	cios		Lane	Group	App	oroach	L		
Lane Grou	_	Low Rate			_					——		
Grp Capa	acity	(s)	v/c	g/	С	Delay	r LOS	Dela	ay LOS			
Eastbound												
L 257		L711	0.04			36.4	D					
TR 221	.6 4	1924	0.90	0.	45	31.0	С	31.0) C			
Westbound												
L 257		L710				40.4						
TR 221	. 4 4	1920	0.93	0.	45	33.3	С	33.7	7 C			
Northbound												
L 304		L215			25	32.5						
TR 373	3 1	L492	0.53	0.	25	33.8	С	33.2	2 C			
Southbound												
			0.68									

Intersection Delay = 32.8 (sec/veh) Intersection LOS = C

Phone: Fax: E-Mail:

_____OPERATIONAL ANALYSIS_____

Analyst: JCE

JOHN COLLINS ENGINEERS, P.C. Agency/Co.:

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-1 Area Type: All other areas

Jurisdiction:

Analysis Year: 2012 BUILD TRAFFIC VOLUMES Project ID: 281

E/W St: NEPPERHAN AVENUE N/S St: PROPOSED SITE ACCESS / WAVERLY

_____VOLUME DATA_____

	Eas	stbou	nd	Wes	stbou	nd	No	rthboi	und	Sou	ıthboı	ınd
	L	T	R	L	T	R	L	T	R	L	T	R
				ļ						ļ		
Volume	8	1827	10	115	1868	19	120	0	180	84	0	36
% Heavy Veh	5	5	5	5	5	5	5	5	5	5	5	5
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PK 15 Vol	2	496	3	31	508	5	33	0	49	23	0	10
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900		1900	1900		1900	1900			1900	
ParkExist				ĺ			ĺ			ĺ		ĺ
NumPark												
No. Lanes	1	3	0	1	3	0	1	1	0	0	1	0
LGConfig	L	TR		L	TR		L	TR		ĺ	LTI	ર
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		İ	12.0	j
RTOR Vol			0	ĺ		0	İ		0	ĺ		0
Adj Flow	9	1997		125	2051		130	196		İ	130	j
%InSharedLn				İ			İ			İ		j
Prop LTs		0.0	0 0	ĺ	0.0	0 0	1.000	0.00	0.0	ĺ	0.70	0 0
Prop RTs	0	.006		0	.010		1	.000		j 0.	.300	j
Peds Bikes	2!	5 (0	2!	5 (0	2 !	5 (C	25	5 () j
Buses	0	0		0	0		0	0		İ	0	j
%InProtPhase	<u>-</u>			İ			ĺ			ĺ		į
			_	<u>.</u>			•			•		

Duration 0.25 Area Type: All other areas

_____OPERATING PARAMETERS_____

	Ea	stbound	We	stbound	No	rthbound	Southbound
	L	T R	L	T R	L	T R	LTR
Init Unmet	 0.0	0.0	 0.0	0.0	- 0.0	0.0	0.0
Arriv. Type	3	3	3	3	3	3] 3
Unit Ext.	3.0	3.0	3.0	3.0	3.0	3.0	3.0
I Factor		1.000	İ	1.000	ĺ	1.000	1.000
Lost Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext of g	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ped Min g		3.4	İ	3.4	ĺ	3.4	3.4

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-#2

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: ELM STREET

North/South Street: PROPOSED SITE DRIVEWAY

				2.	7	1 11100	(-12-0)	0.11	
	Veh	icle Vol	lumes and	l Adjus	stme	nts			
Major Street: A	Approach	Εá	astbound			Wes	tbound	l	
Ŋ	Movement	1	2	3		4	5	6	
		L	Т	R	İ	L	Т	R	
Volume						93	 747		
Peak-Hour Factor	^. PHF					0.92	0.92		
Hourly Flow Rate						101	811		
Percent Heavy Ve						5			
Median Type/Stor		Undia	vided			/			
RT Channelized?	age	onar	vided			/			
Lanes						0	2		
						_			
Configuration			3.7			T.T	' T		
Upstream Signal?	?		No				No		
Minor Street: A	 Approach	N	 orthbound	 [Sou	thbour	 ıd	
N	Movement	7	8	9		10	11	12	
		L	T	R	İ	L	T	R	
Volume		13							
Peak Hour Factor	^. PHF	0.92							
Hourly Flow Rate		14							
Percent Heavy Ve		5							
Percent Grade (%		3	0				0		
Flared Approach:		/C+0300	-		,		U		/
	EXISCS	_	=		/				/
Lanes		1	_						
Configuration]							
	·		ength, an			i Servi		1.1	
Approach	EB	WB		hbound				hbound	
Movement	1	4	7	8	9	ļ 1	. 0	11	12
Lane Config		LT	L						
v (vph)		101	14						
C(m) (vph)		1604	426						
V/C		0.06	0.03						
95% queue length	ı	0.20	0.10						
Control Delay	-	7.4	13.7						
LOS		7. 1 A	В						
		A	ם	12 7					
Approach Delay				13.7					
Approach LOS				В					

Inter.: AMBD-DRWY-#3 (AM9BD) Analyst: JCE Area Type: All other areas

Agency: JOHN COLLINS ENGINEERS, P.C. Date: 3/12/2007

Jurisd:

Year : 2012 BUILD TRAFFIC VOLUMES Period: WEEKDAY PEAK AM HIGHWAY HOUR

Project ID: 281

_,., 50,	PALISADES	AVENUE /	ELM STRI	EET N/S	S St: PROPOSI	מודני מי	E ACCESS	
		SI	GNALIZEI	O INTERSE	CTION SUMMAR	RY		
	 Eas	tbound		oound	Northbour		Southbound	
	L	T R	ļL :	г к	L Т 	R	L T R	!
No. Land LGConfid Volume Lane Wid RTOR Vol	g dth	0 0		2 0 LTR 45 166 2.0	0 1 LT 31 16 12.0	0	0 1 0 TR 25 30 12.0	į
Duration	n 0.25	Area		ll other al Operat				
Phase Co	 ombination	1 2	3	4	5	6	7 8	
EB Left Thru Righ Peds	t u ht	х		NB	Left A Thru A Right Peds X			
WB Left Thru Righ Peds NB Righ	u ht s	A A A X		SB EB	Left Thru A Right A Peds X Right			
SB Righ				WB	Right			
Green Yellow All Red		35.0 3.0 2.0			35.0 3.0 2.0	le Leng	gth: 80.0	secs
Yellow All Red		3.0 2.0 Interse			35.0 3.0 2.0 Cyclee Summary			secs
Yellow	Lane Group	3.0 2.0 Interse Adj Sat Flow Rate	Rat:	ios 	35.0 3.0 2.0 Cyclee Summary Lane Group	Appı	roach	secs
Yellow All Red ————Appr/	Lane Group	3.0 2.0 Interse Adj Sat	Rat:	ios 	35.0 3.0 2.0 Cyclee Summary	Appı	roach	secs
Yellow All Red Appr/ Lane Grp Eastbour	Lane Group Capacity nd	3.0 2.0 Interse Adj Sat Flow Rate	Rat:	ios 	35.0 3.0 2.0 Cyclee Summary Lane Group	Appı	roach	secs
Yellow All Red Appr/ Lane Grp Eastbour	Lane Group Capacity ————nd	3.0 2.0 Interse Adj Sat Flow Rate (s)	Rat:	ios g/C	35.0 3.0 2.0 Cycles Summary Lane Group Delay LOS	Appi	coach y LOS	secs
Yellow All Red Appr/ Lane Grp Eastbour	Lane Group Capacity nd	3.0 2.0 Interse Adj Sat Flow Rate	Rat:	ios 	35.0 3.0 2.0 Cycles Summary Lane Group Delay LOS	Appi	coach y LOS	secs
Yellow All Red Appr/ Lane Grp Eastbour	Lane Group Capacity nd	3.0 2.0 Interse Adj Sat Flow Rate (s)	Rat:	ios g/C	35.0 3.0 2.0 Cycles Summary Lane Group Delay LOS	Appi	coach y LOS	secs
Yellow All Red Appr/ Lane Grp Eastbour Westbour	Lane Group Capacity nd	3.0 2.0 Interse Adj Sat Flow Rate (s)	Rat:	ios g/C 	35.0 3.0 2.0 Cyclee Summary Lane Group Delay LOS	Appi	coach y LOS	secs
Yellow All Red Appr/ Lane Grp Eastbour Westbour LTR Northbou	Lane Group Capacity nd 1444 und 580	3.0 2.0 —_Interse Adj Sat Flow Rate (s)	Rat: v/c	ios g/C 	35.0 3.0 2.0 Cyclee Summary Lane Group Delay LOS	Appropriate Approp	coach y LOS	secs
Yellow All Red Appr/ Lane Grp Eastbour Westbour LTR Northbou	Lane Group Capacity nd 1444 und 580	3.0 2.0 —_Interse Adj Sat Flow Rate (s)	Rat: v/c	0.44	35.0 3.0 2.0 Cyclee Summary Lane Group Delay LOS 17.4 B	Appropriate Approp	B	secs

Phone: Fax: E-Mail:

____OPERATIONAL ANALYSIS_____

Analyst: JCE

JOHN COLLINS ENGINEERS, P.C. Agency/Co.:

Date Performed: 3/12/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR Intersection: AMBD-DRWY-#3 (AM9BD)

Area Type:

Area Type: All other areas

Jurisdiction:

2012 BUILD TRAFFIC VOLUMES Analysis Year:

Project ID: 281

E/W St: PALISADES AVENUE / ELM STREET N/S St: PROPOSED SITE ACCESS

_____VOLUME DATA_____

	Eas	tbou	nd	Wes	stbou	nd	No	rthbou	ınd	So	uthbo	und
	L	Т	R	L	T	R	L	Т	R	L 	Т	R
Volume				49	545	166	31	16			25	306
% Heavy Veh				5	5	5	5	5			5	5
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
PK 15 Vol				13	148	45	8	4			7	83
Hi Ln Vol				İ			İ			İ		
% Grade				İ	0		İ	0			0	
Ideal Sat				İ	1900		İ	1900		İ	1900	
ParkExist				İ			İ			İ		
NumPark				İ			İ			İ		
No. Lanes	0	0	0	j 0	2	0	0	1	0	0	1	0
LGConfig				İ	LTI	.?.	İ	$_{ m LT}$		İ	TR	
Lane Width				İ	12.0		İ	12.0		İ	12.0	
RTOR Vol				İ		0	İ			İ		0
Adj Flow				İ	825		İ	51		İ	360	
%InSharedLn				İ			İ			İ		
Prop LTs				İ	0.0	б4	İ	0.66	57	İ	0.0	0.0
Prop RTs				j o	.218		j 0	.000		j o	.925	
Peds Bikes	0			2	5 (0	İ			j 2	5)
Buses				i	0		İ	0			0	
%InProtPhase	2			İ			İ			İ		

Duration 0.25 Area Type: All other areas

_____OPERATING PARAMETERS_____

	Eas	stbou	ınd	We	stbou	nd	No	rthbo	und	So	uthbo	und
	L	T	R	L	T	R	L	Т	R	L	Т	R
										.		
Init Unmet					0.0			0.0			0.0	
Arriv. Type					3			3			3	
Unit Ext.				ĺ	3.0		İ	3.0		İ	3.0	ĺ
I Factor				ĺ	1.00	0	İ	1.00	0	İ	1.00	0
Lost Time				İ	2.0		İ	2.0		İ	2.0	į
Ext of g				j	2.0		İ	2.0		İ	2.0	į
Ped Min g		3.2		j	3.4		Ì			İ	3.4	į

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-#4

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

Major Street: Approach Eastbound Westbound Movement 1 2 3 4 5 6 L T R L T R Volume Volume 665 217 Peak-Hour Factor, PHF 0.92 0.92 Hourly Flow Rate, HFR 722 235 Percent Heavy Vehicles Median Type/Storage Undivided / RT Channelized? 2 0	
L T R L T R N N N N N N N N N N N N N N N N N N	
Volume Peak-Hour Factor, PHF Hourly Flow Rate, HFR Percent Heavy Vehicles Median Type/Storage Undivided VRT Channelized? Lanes V665 217 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	
Peak-Hour Factor, PHF Hourly Flow Rate, HFR Percent Heavy Vehicles	
Hourly Flow Rate, HFR Percent Heavy Vehicles	
Percent Heavy Vehicles Median Type/Storage Undivided / RT Channelized? Lanes 2 0	
Median Type/Storage Undivided / RT Channelized? Lanes 2 0	
RT Channelized? Lanes 2 0	
Lanes 2 0	
Configuration T TR	
Upstream Signal? No No	
Minor Street: Approach Northbound Southbound	
Movement 7 8 9 10 11 12	
L T R L T R	
Volume 30	
Peak Hour Factor, PHF 0.92	
Hourly Flow Rate, HFR 32	
Percent Heavy Vehicles 5	
Percent Grade (%) 0	
Flared Approach: Exists?/Storage /	/
Lanes 1	
Configuration	
Delay, Queue Length, and Level of Service	
Approach EB WB Northbound Southbound	1.0
Movement 1 4 7 8 9 10 11	12
Lane Config	R
v (vph)	32
C(m) (vph)	581
v/c	0.06
95% queue length	0.17
Control Delay	11.6
LOS	В
Approach Delay 11.6	
Approach LOS B	

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-#5

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

intersection ori	entation.	ΕW		51	tuay peri	Loa (III s	3) • 0 •	4 5
	Veh	icle Vol	lumes and	d Adjus	stments			
Major Street: A	Approach	Εá	astbound		abla	Vestbour	nd	
N	lovement	1	2	3	4	5	6	
		L	T	R	L	Т	R	
Volume					49	833		
Peak-Hour Factor	, PHF				0.92	0.92	2	
Hourly Flow Rate	, HFR				53	905		
Percent Heavy Ve	ehicles				5			
Median Type/Stor	age	Undi	vided		/			
RT Channelized?								
Lanes					C) 2		
Configuration						LT T		
Upstream Signal?)		No			No		
	Approach		orthbound			Southbou		
N	lovement	7	8	9	10	11	12	
		L	T	R	L	Т	R	
Volume		31						
Peak Hour Factor	, PHF	0.92						
Hourly Flow Rate	e, HFR	33						
Percent Heavy Ve		5						
Percent Grade (%	5)		0			0		
Flared Approach:	Exists?	/Storage	e		/			/
Lanes		1						
Configuration]	L					
	Delay,	Oueue Le	ength, a	nd Leve	el of Ser	rvice		
Approach	EB	WB		thbound			thboun	 d
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L		j			
v (vph)		 53	33					
C(m) (vph)		1604	540					
v/c		0.03	0.06					
95% queue length	1	0.10	0.19					
Control Delay	-	7.3	12.1					
LOS		7.3 A	В					
Approach Delay		ч	ט	12.1				
Approach LOS				В				
Approach nos				ט				

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-#6

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

incersection o	TIEMCACIOM.	11 W		51	tudy per.	ioa (iii	5). 0.	23
	Veh	icle Vo	lumes a	nd Adjus	stments_			
Major Street:	Approach	E	astboun	d	7	Westbou	nd	
	Movement	1	2	3	4	5	6	
		L	T	R	L	Т	R	
Volume					25	658		
Peak-Hour Fact	or, PHF				0.92	2 0.9	2	
Hourly Flow Ra	te, HFR				27	715		
Percent Heavy	Vehicles				5			
Median Type/St		Undi	vided		/			
RT Channelized	. ?				,	0 0		
Lanes					(0 2		
Configuration	1.0		NT -			LT T		
Upstream Signa	.1?		No			No		
Minor Street:	Approach		orthbou:			Southbo		
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume		16						
Peak Hour Fact	or, PHF	0.92						
Hourly Flow Ra	te, HFR	17						
Percent Heavy	Vehicles	5						
Percent Grade	(%)		0			0		
Flared Approac	h: Exists?	/Storag	е		/			/
Lanes		1						
Configuration			L					
		Queue L			el of Se			
Approach	EB	WB .	No	rthbound		So	uthboun	
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L					
v (vph)		27	17					
C(m) (vph)		1604	581					
v/c		0.02	0.03					
95% queue leng	th	0.05	0.09					
Control Delay		7.3	11.4					
LOS		A	В					
Approach Delay	•			11.4				
Approach LOS				В				

Analyst: JCE Inter.: AMBD-DRWY-7

Agency: JOHN COLLINS ENGINEERS, P.C. Area Type: All other areas Date: 4/20/2007 Jurisd: W/ SIGNALIZATION

Period: WEEKDAY PEAK AM HIGHWAY HOUR Year : 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

E/W St: PROPOSED SITE ACCESS N/S St: NEW MAIN STREET

							CTION S			1 =			
	!	tbound			tbour		1	thbou		:	uthbo		
	L	Т	R	L	Т	R	L	Т	R	L 	Т	R	
No. Lanes LGConfig Volume Lane Width RTOR Vol	0	0	0	1 L 62 12.0	0	0	0	0	0	 0 98 	LT 549 12.0		
Duration	0.25	I	Area 1				areas						
 Phase Combi	nation	1	2	 3	4		10115	 5	6	7	,	8	
EB Left						NB	Left						
Thru						İ	Thru						
Right							Right						
Peds		X					Peds						
WB Left		A				SB	Left						
Thru							Thru						
Right							Right						
Peds		X				ļ	Peds	X					
NB Right						EB	Right						
SB Right						WB	Right						
Green		30.0						50.0)				
Yellow													
		3.0						3.0					
		2.0						2.0	.]	la •	0.0 0		
		2.0	torgo	ation	Dorf	orman a	O Cumma	2.0 Cyc	ele Lei		90.0		sec
All Red		2.0 Int					e Summa	2.0 Cyc ary					sec
All Red Appr/ Lan	ne	2.0 Int Adj	Sat	Ra	Perfo			2.0 Cyc ary					sec
All Red Appr/ Lan Lane Gro	ie	2.0 Int Adj Flow	Sat Rate	Ra	tios		Lane (2.0 Cyc ary Group	 App	proac	 :h 		sec
All Red Appr/ Lan Lane Gro	ie	2.0 Int Adj Flow	Sat Rate	Ra				2.0 Cyc ary Group	 App	proac	 :h 		sec
All Red Appr/ Lan Lane Gro Grp Cap	ie	2.0 Int Adj Flow	Sat Rate	Ra	tios		Lane (2.0 Cyc ary Group	 App	proac	 :h 		sec
All Red	ie	2.0 Int Adj Flow	Sat Rate	Ra	tios		Lane (2.0 Cyc ary Group	 App	proac	 :h 		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound	ie	2.0 Int Adj Flow	Sat Rate	Ra	tios		Lane (2.0 Cyc ary Group	 App	proac	 :h 		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate s)	Ra v/c	tios g, g,	 /C	Lane (2.0 Cycary Group LOS	 App	proac	 :h 		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate	Ra v/c	tios g, g,		Lane (2.0 Cyc ary Group	Dela	proac	eh OS		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound Westbound	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate s)	Ra v/c	tios g, g,	 /C	Lane (2.0 Cycary Group LOS	 App	proac	eh OS		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound Westbound L 57	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate s)	Ra v/c	tios g, g,	 /C	Lane (2.0 Cycary Group LOS	Dela	proac	eh OS		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound Westbound L 57	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate s)	Ra v/c	tios g, g,	 /C	Lane (2.0 Cycary Group LOS	Dela	proac	eh OS		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound Westbound L 57	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate s)	Ra v/c	tios g, g,	 /C	Lane (2.0 Cycary Group LOS	Dela	proac	eh OS		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound Westbound L 57 Northbound	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate s)	Ra v/c	tios g, g,	 /C	Lane (2.0 Cycary Group LOS	Dela	proac	eh OS		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound Westbound L 57 Northbound Southbound	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate s)	Ra	g,	.33	Lane (2.0 Cycary_ Group LOS	Dela	proac	os		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound Westbound L 57 Northbound Southbound	ne oup pacity	2.0 Int Adj Flow (s	Sat Rate s)	Ra v/c	g,	 /C	Lane (2.0 Cycary Group LOS	Dela	proac	os		sec

Phone: Fax: E-Mail:

_____OPERATIONAL ANALYSIS_____

Analyst:
Agency/Co.:
Date Performed:
Analysis Time Period:
Untersection:
Area Type:

JCE
JOHN COLLINS ENGINEERS, P.C.
WEEKDAY PEAK AM HIGHWAY HOUR
AMBD-DRWY-7
Analysis Time Period:
AMBD-DRWY-7

E/W St: PROPOSED SITE ACCESS N/S St: NEW MAIN STREET

_____VOLUME DATA_____

	Eas	stbou	.nd	Wes	tbou	nd	No	thbo	und	So	uthboi	und
İ	L	Т	R	Ĺ	Т	R	L	Т	R	Ĺ	Т	R
17.0.1m.o				_ 62			·			_ 98	 549	
Volume				!			}			!		
% Heavy Veh				5						5	5	
PHF				0.92						!	0.92	
PK 15 Vol				17			ļ			27	149	
Hi Ln Vol												
% Grade					0						0	
Ideal Sat				1900							1900	
ParkExist												
NumPark				ĺ			İ			İ		
No. Lanes	0	0	0	1	0	0	j o	0	0	į o	2	0
LGConfig				i L			İ			İ	LT	
Lane Width				12.0			i			İ	12.0	
RTOR Vol							i			İ		
Adj Flow				67							704	
%InSharedLn				"			1				, 0 1	
Prop LTs											0.1	5.2
_				l I			-			0	.000	<i>J</i>
Prop RTs				l I						į U	.000	
Peds Bikes	0						0				0	
Buses				0			1				0	
%InProtPhase			_				1					

Duration 0.25 Area Type: All other areas

_____OPERATING PARAMETERS_____

	Eas	stbou	nd	We	stbou	nd	No	rthbo	und	So	uthbo	und	
	L	T	R	L	Т	R	L	T	R	L	Т	R	
Trait IIrmat							-						
Init Unmet				0.0			-				0.0		!
Arriv. Type				3			ļ				3		ļ
Unit Ext.				3.0							3.0		
I Factor					1.00	0					1.00	0	
Lost Time				2.0							2.0		
Ext of g				2.0							2.0		
Ped Min g		3.2						3.2					

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-#8

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: NEW MAIN STREET

Incersection C	Tiencacion.	ND			cudy peri	.ou (III.s)	• 0.2	
	Veh	nicle Vo	lumes a	nd Adju	stments			
Major Street:	Approach	N	orthbou	ınd	S	outhbour	ıd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
Volume						584	27	
Peak-Hour Fact	or, PHF					0.92	0.92	2
Hourly Flow Ra	ite, HFR					634	29	
Percent Heavy	Vehicles							
Median Type/St RT Channelized		Undi	vided		/			
Lanes	•					2	0	
Configuration							ľR	
Upstream Signa	112		No			No	. 10	
opscream bigna			NO			NO		
Minor Street:	Approach		estboun			lastbound		
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume							120	
Peak Hour Fact	or, PHF						0.92	2
Hourly Flow Ra							130	
Percent Heavy							5	
Percent Grade			0			0		
Flared Approac		/Storag	е		/			/
Lanes					•		1	·
Configuration						F		
	Delay,	Oueue L	ength,	and Lev	rel of Ser	vice		
Approach	NB	SB		stbound			bound	
Movement	1	4	7	8	9	10	11	12
Lane Config		j			j			R
		·						
v (vph)								130
C(m) (vph)								703
v/c								0.18
95% queue leng	ŗth							0.67
Control Delay								11.3
LOS								В
Approach Delay	7						11.3	
Approach LOS							В	
- -								

_____TWO-WAY STOP CONTROL SUMMARY_____

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-#9

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: SOUTH BROADWAY

Intersection 0	riencacion.	NS		50	udy peri	54 (III.b): 0.2	_
	Veh	icle Vo	lumes an	d Adjus	tments			
Major Street:	Approach	N	orthboun	.d	S	outhbou	nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
 Volume			482	18				
Peak-Hour Fact	or, PHF		0.92	0.92				
Hourly Flow Ra	te, HFR		523	19				
Percent Heavy	Vehicles							
Median Type/St RT Channelized		Undi	vided		/			
Lanes			2	0				
Configuration				'R				
Upstream Signa	1?		No			No		
Minor Street:	Approach	W	estbound			astboun	d	
	Movement	7	8	9	10	11	12	
		L	Т	R	L	T	R	
Volume				39				
Peak Hour Fact				0.92				
Hourly Flow Ra				42				
Percent Heavy				5				
Percent Grade			0			0		
Flared Approac	h: Exists?	/Storage			/			/
Lanes				1				
Configuration			R					
			. 1					
	Delay.	()11e11e L	enarn, a	nd Leve	l of Ser	VICE		
 Approach	_				l of Ser		tbound	
	NB	SB	Wes	tbound		Eas	tbound	12
Movement	_				l of Serventers 9 R		tbound 11	12
Movement Lane Config	NB	SB	Wes	tbound	9 R 42	Eas		12
Movement Lane Config v (vph)	NB	SB	Wes	tbound	9 R 42 761	Eas		12
Movement Lane Config v (vph) C(m) (vph) v/c	NB 1	SB	Wes	tbound	9 R 42	Eas		12
Movement Lane Config v (vph) C(m) (vph) v/c	NB 1	SB	Wes	tbound	9 R 42 761	Eas		12
Movement Lane Config v (vph) C(m) (vph) v/c 95% queue leng	NB 1	SB	Wes	tbound	9 R 42 761 0.06	Eas		12
Movement Lane Config v (vph) C(m) (vph) v/c 95% queue leng Control Delay	NB 1	SB	Wes	tbound	9 R 42 761 0.06 0.17	Eas		12
Approach Movement Lane Config v (vph) C(m) (vph) v/c 95% queue leng Control Delay LOS Approach Delay	NB 1	SB	Wes	tbound	9 R 42 761 0.06 0.17 10.0+	Eas		12

_____TWO-WAY STOP CONTROL SUMMARY_____

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-#10

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: NEW MAIN STREET

Movement 1	intersection o	rientation.	MS		2	study peri	od (III s) • 0 . 2	3.5
Major Street: Approach Movement 1 2 3		Veh	icle Vo	lumes a	nd Adju	stments			
L T R L T R L T R	Major Street:							 nd	
Volume Peak-Hour Factor, PHF Percent Heavy Vehicles RT Channelized? Lanes Configuration Minor Street: Approach Movement Peak Hour Factor, PHF No Volume Peak Hour Factor, PHF Percent Heavy Vehicles Approach Bapproach NB Delay, Queue Length, and Level of Service Approach No Delay, Queue Length, and Level of Service Approach No No No Delay, Queue Length, and Level of Service Approach No No Delay, Queue Length, and Level of Service Approach No Volume Peak Hour Factor, PHF Approach NB SB Westbound RC Delay, Queue Length, and Level of Service Approach NB SB Westbound Novement NB SB Westbound NB NB SB Westbound NB NB SB Westbound NB NB NB NB NB NB NB NB NB NB NB NB NB	-	Movement	1	2	3	4	5	6	
Peak-Hour Factor, PHF 0.92 0.92 Hourly Flow Rate, HFR 274 174 Percent Heavy Vehicles			L	Т	R	ļ L	Т	R	
Hourly Flow Rate, HFR Percent Heavy Vehicles	 Volume						253	 161	
Percent Heavy Vehicles	Peak-Hour Fact	or, PHF					0.92	0.92	2
Percent Heavy Vehicles	Hourly Flow Ra	te, HFR					274	174	
Median Type/Storage Undivided / RT Channelized? Lanes 1 0 Configuration TR Upstream Signal? No No No Minor Street: Approach Movement Westbound Movement Eastbound Movement L T R L T R Volume Peak Hour Factor, PHF 4 Percent Heavy Vehicles 0 Percent Grade (%) 0 Flared Approach: Exists?/Storage / Lanes 1 Configuration R Delay, Queue Length, and Level of Service Approach NB SB Westbound Rovement Eastbound Rovement Lane Config 4 V (vph) 4 C(m) (vph) 4 V/C 0.01 95% queue length 0.02 Control Delay 0.02 LOS B Approach Delay 10.3	_								
Lanes	Median Type/St	orage	Undi	vided		/			
## Configuration Upstream Signal? No No No No No No No No No No No No No		. :					1	٥	
Minor Street: Approach Westbound Eastbound Movement 7							1	-	
Minor Street: Approach Westbound Eastbound Movement 7 8 9 10 11 12 L T R Volume 4 0.92 Hourly Flow Rate, HFR 4 4 Percent Heavy Vehicles 0 Percent Grade (%) 0 0 0 Flared Approach: Exists?/Storage / / / / L Approach NB SB Westbound R Delay, Queue Length, and Level of Service 1 Configuration R Delay, Queue Length, and Level of Service R Approach NB SB Westbound Eastbound NOVEMENT NB SB Westbound R Overwhelm 1 4 7 8 9 10 11 12 R V (vph) 688 Veycond Out of Service R V (vph) 688 Veycond Out Out Out Out Out Out Out Out Out Out		10		Mo			Mo	IK	
Movement 7 8 9 10 11 12 L T R L T R Volume Peak Hour Factor, PHF Percent Heavy Vehicles Percent Grade (%) 0 0 Percent Grade (%) 0 0 Planed Approach: Exists?/Storage / / / Lanes Configuration Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config V (vph) C(m) (vph) C(m) (vph) Control Delay Control Delay Approach Delay Approach Delay Column (V) Column (upstream Signa	Τ;		NO			NO		
L T R L T R A A A A A A A A A	Minor Street:								
Volume		Movement				ļ.			
Peak Hour Factor, PHF 0.92 Hourly Flow Rate, HFR 4 Percent Heavy Vehicles 0 Percent Grade (%) 0 Flared Approach: Exists?/Storage / Lanes 1 Configuration R Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 1 Lane Config R 4 V (vph) 688 0.01 95% queue length 0.02 0.01 95% queue length 0.02 0.02 Control Delay 10.3 B Approach Delay 10.3 B			L	Т	R	L	Т	R	
Hourly Flow Rate, HFR	Volume								
Percent Heavy Vehicles Percent Grade (%) Percent Grade (%) Flared Approach: Exists?/Storage Lanes Configuration Delay, Queue Length, and Level of Service Approach Movement 1 4 7 8 9 10 11 12 Lane Config V (vph) C(m) (vph) C(m) (vph) C(m) (vph) Control Delay Approach Delay Approach Delay Approach Delay 10.3	Peak Hour Fact	or, PHF						0.92	2
Percent Grade (%)	Hourly Flow Ra	te, HFR						4	
Flared Approach: Exists?/Storage	Percent Heavy	Vehicles						0	
Delay, Queue Length, and Level of Service	Percent Grade	(%)		0			0		
Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound NB SB Westbound NB SB NB SB NB SB NB SB S	Flared Approac	h: Exists?	/Storag	e		/			/
Delay, Queue Length, and Level of Service	Lanes							1	
Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config R V (vph) C(m) (vph) v/c 0.01 95% queue length 0.02 Control Delay 10.3 Approach Delay 10.3	Configuration							R	
Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config R V (vph) C(m) (vph) v/c 0.01 95% queue length 0.02 Control Delay 10.3 Approach Delay 10.3									
Movement 1 4 7 8 9 10 11 12 Lane Config	Appropriate and a second								
Lane Config v (vph) C(m) (vph) v/c 95% queue length Control Delay LOS Approach Delay 10.3									1.0
v (vph) C(m) (vph) v/c 95% queue length Control Delay LOS Approach Delay 10.3		1	4	/	8	9	10	Т Т	
C(m) (vph) v/c 95% queue length Control Delay LOS Approach Delay 10.3	Lane Config								R
v/c0.0195% queue length0.02Control Delay10.3LOSBApproach Delay10.3	v (vph)								
95% queue length Control Delay LOS Approach Delay 10.3 10.3									
Control Delay 10.3 LOS B Approach Delay 10.3									
LOS B Approach Delay 10.3		th							
Approach Delay 10.3	Control Delay								10.3
	LOS								В
Approach LOS B	Approach Delay							10.3	
	Approach LOS							В	

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK AM HIGHWAY HOUR

Intersection: AMBD-DRWY-#11

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: NEPPERHAN AVENUE
North/South Street: PROPOSED SITE ACCESS

				~	oudy Poll	(112.0)		-0
	Veh	icle Vo	lumes an	ıd Adju	stments			
Major Street:	Approach		astbound	_		estbound	 1	
3	Movement	1	2	3	4	5	6	
		L	T	R	L	Т	R	
Volume						1846	50	_
Peak-Hour Fact						0.92	0.92	2
Hourly Flow Ra						2006	54	
Percent Heavy								
Median Type/St		Undi	vided		/			
RT Channelized								
Lanes						2	0	
Configuration						Т	ΓR	
Upstream Signa]?		No			No		
opperedam bryna	- •		110			110		
Minor Street:	Approach	N	orthbour	nd		outhbour	 1d	
	Movement	7	8	9	10	11	12	
		L	T	R	L	Т	R	
Volume							 5 0	
Peak Hour Fact	or DUE						0.92	2
Hourly Flow Ra							54	2
_							_	
Percent Heavy			•				5	
Percent Grade			0		,	0		,
Flared Approac	h: Exists?	/Storag	е		/			/
Lanes							1	
Configuration						I	5	
					el of Ser			
Approach	EB	WB		thboun	_		chbound	
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								54
C(m) (vph)								280
V/C	L-1-							0.19
95% queue leng	tn							0.70
Control Delay								20.9
LOS								С
Approach Delay							20.9	
Approach LOS							C	

Analyst: JCE Inter.: PMBD-DRWY-1

Agency: JOHN COLLINS ENGINEERS, P.C. Area Type: All other areas

Date: 4/20/2007

Year : 2012 BUILD TRAFFIC VOLUMES

Period: WEEKDAY PEAK PM HIGHWAY HOUR

Project ID: 281

E/W St: NEPPERHAN AVENUE N/S St: PROPOSED SITE ACCESS / WAVERLY

Jurisd:

		. 1					CTION				+ 1- 1		
	Eas	tboun T	.a R	Wes L	stbou: T	na R	Nor L	thbou T	nd R	Soi L	ıthbo T	una R	
No. Lanes LGConfig	 1 L	3 TR	0		3 TR	0	 1 L	1 TR	0	0	1 LT	0	!
Volume		2564	10	85	1257	105	200	0	100	72	0	19	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0			12.0		j
RTOR Vol			0			0			0			0	
Duration	0.25		Area 1										
Phase Combi	nation		2	SIS	ا عالم 4	Operat 	TOHS	5	 б	<u>-</u>		8	
EB Left		_	A	J	_	NB	Left	A	· ·	•			
Thru		A				j	Thru	A					
Right		A					Right	: A					
Peds		X	X			[Peds	X					
WB Left			A			SB	Left	A					
Thru		A				ļ	Thru	A					
Right		A	37			ļ	Right						
Peds NB Right		X	X			l l EB	Peds Right	. X					
SB Right						!							
						I WR	Riaht	•					
_		55.0	10.0			WB	Right)				
Green		55.0 3.0	10.0			WB	Right	20.0)				
_		55.0 3.0 2.0				WB	Right)				
Green Yellow		3.0	3.0			•		20.0 3.0 2.0 Cyc	cle Ler		100.	0	secs
Green Yellow All Red		3.0 2.0 In	3.0 2.0			ormanc	e Summ	20.0 3.0 2.0 Cyo nary	cle Ler			0	secs
Green Yellow All Red Appr/ Lan	e	3.0 2.0 In Adj	3.0			ormanc	e Summ	20.0 3.0 2.0 Cyo nary	cle Ler			0	secs
Green Yellow All Red Appr/ Lan Lane Gro	e	3.0 2.0 In Adj Flow	3.0 2.0 tersec	Rá	atios	ormanc	e Summ	20.0 3.0 2.0 Cyc mary Group	cle Ler		 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro	e up	3.0 2.0 In Adj Flow	3.0 2.0 tersed Sat Rate	Rá	atios	ormanc 	e Summ Lane	20.0 3.0 2.0 Cyc mary Group	cle Ler	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap	e oup acity	3.0 2.0 In Adj Flow	3.0 2.0 tersec Sat Rate s)	v/c	atios g	ormanc 	e Summ Lane	20.0 3.0 2.0 Cyc mary Group	cle Ler	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap Eastbound L 16	e oup acity	3.0 2.0 In Adj Flow (3.0 2.0 tersec Sat Rate s)	 v/c	atios g	ormanc /C	e Summ Lane ——— Delay	20.0 3.0 2.0 Cyc mary Group LOS	cle Ler	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap Eastbound L 16 TR 27	e oup acity 9 09	3.0 2.0 In Adj Flow (3.0 2.0 tersed Sat Rate s)	0.21	atios g L 0	ormanc /C .10	e Summ Lane Delay 42.0	20.0 3.0 2.0 Cyc mary_ Group LOS	cle Ler Dela	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap Eastbound L 16 TR 27 Westbound L 17	e oup acity 9 09	3.0 2.0 —In Adj Flow (——— 169 492	3.0 2.0 tersed Sat Rate s)	0.22 1.03	g g	ormanc /C .10 .55	e Summ Lane Delay 42.0 49.0	20.0 3.0 2.0 Cyc mary Group T LOS D D	cle Ler Dela	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap Eastbound L 16 TR 27 Westbound L 17	e oup acity 9 09	3.0 2.0 In Adj Flow (3.0 2.0 tersed Sat Rate s)	0.21	g g	ormanc /C .10	e Summ Lane Delay 42.0	20.0 3.0 2.0 Cyc Group Group	cle Ler Dela	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap Eastbound L 16 TR 27 Westbound L 17 TR 26	e up acity 9 09	3.0 2.0 —In Adj Flow (169 492 171 486	3.0 2.0 tersec Sat Rate s) 2 6	0.22 1.03 0.53	g g 0 3 0 0	ormanc /C 10 .55	e Summ Lane Delay 42.0 49.0	20.0 3.0 2.0 Cyc mary Group T LOS D D	cle Ler Dela	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap Eastbound L 16 TR 27 Westbound L 17 TR 26 Northbound L 25	e up acity 9 09	3.0 2.0 —In Adj Flow (169 492 171 486	3.0 2.0 tersec Sat Rate s) 2 6	0.21 1.03 0.53 0.55	g g 0 3 0 0 5 0	ormanc 	e Summ Lane ———— Delay 42.0 49.0 46.0 14.8	20.0 3.0 2.0 Cyc mary Group TLOS D D B	Dela	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap Eastbound L 16 TR 27 Westbound L 17 TR 26	e up acity 9 09	3.0 2.0 —In Adj Flow (169 492 171 486	3.0 2.0 tersec Sat Rate s) 2 6	0.22 1.03 0.53	g g 0 3 0 0 5 0	ormanc /C 10 .55	e Summ Lane Delay 42.0 49.0	20.0 3.0 2.0 Cyc mary Group TLOS D D D	cle Ler Dela	proach	 1 	0	secs
Green Yellow All Red Appr/ Lan Lane Gro Grp Cap Eastbound L 16 TR 27 Westbound L 17 TR 26 Northbound L 25	e up acity 9 09	3.0 2.0 —In Adj Flow (169 492 171 486	3.0 2.0 tersec Sat Rate s) 2 6	0.21 1.03 0.53 0.55	g g 0 3 0 0 5 0	ormanc 	e Summ Lane ———— Delay 42.0 49.0 46.0 14.8	20.0 3.0 2.0 Cyc mary Group TLOS D D B	Dela	proach	 1 	0	secs

Intersection Delay = 38.5 (sec/veh) Intersection LOS = D

Phone: Fax: E-Mail:

____OPERATIONAL ANALYSIS_____

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-1
Area Type: All other areas

Jurisdiction:

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

E/W St: NEPPERHAN AVENUE N/S St: PROPOSED SITE ACCESS / WAVERLY

_____VOLUME DATA_____

	Eas	stbou	nd	Wes	stbour	nd	No	rthbo	und	Sou	ıthbo	und
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	 33	 2564	10	 85	1257	105	200	0	100	 72	0	 19
% Heavy Veh	1	5	5	5 5	5	5	5	5	5	5	5	5
PHF	0.92	-	-	0.92	0.92	0.92	0.92	-	0.92	0.92	-	_
PK 15 Vol	9	697	3	23	342	29	54	0	27	20	0	5
Hi Ln Vol								-			-	
% Grade		0		İ	0		İ	0			0	
Ideal Sat	1900	1900		1900	1900		1900	1900			1900	
ParkExist							İ					
NumPark				İ			İ			İ		
No. Lanes	1	3	0	1	3	0	1	1	0	0	1	0
LGConfig	L	TR		ļ ь	TR		L	TR		İ	LT	R
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		İ	12.0	
RTOR Vol			0	ĺ		0	Ì		0			0
Adj Flow	36	2798		92	1480		217	109			99	
%InSharedLn				ĺ								
Prop LTs		0.0	0.0		0.00	0 0	1.00	0.0	0 0		0.7	88
Prop RTs	0	.004		0	.077		1	.000		0	.212	
Peds Bikes	2!	5 (0	2 !	5 (0	2 !	5 (0	2 !	5	0
Buses	0	0		0	0		0	0			0	
%InProtPhase	9											

Duration 0.25 Area Type: All other areas

_____OPERATING PARAMETERS_____

	Ea	stbou	nd	We	stbour	nd	No	rthbo	ınd	So	uthbo	und	
	L	Т	R	L	Т	R	L	Т	R	L	Т	R	Ì
Init Unmet	 0.0	0.0		0.0	0.0		-	0.0			0.0		
Arriv. Type	3	3		j 3	3		3	3		İ	3		İ
Unit Ext.	3.0	3.0		3.0	3.0		3.0	3.0		İ	3.0		İ
I Factor	İ	1.00)	İ	1.000)	İ	1.00)	İ	1.00	0	İ
Lost Time	2.0	2.0		2.0	2.0		2.0	2.0		İ	2.0		İ
Ext of g	2.0	2.0		2.0	2.0		2.0	2.0		İ	2.0		İ
Ped Min q	İ	3.4		İ	3.4		j	3.4		İ	3.4		İ

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-#2

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: ELM STREET

North/South Street: PROPOSED SITE DRIVEWAY

				2.	2 22 04 7	1	. (-110)		
	Veh	icle Vol	lumes and	l Adjus	stme	nts			
Major Street:	Approach	Εá	astbound			Wes	stbound	l	
	Movement	1	2	3		4	5	6	
		L	T	R	İ	L	T	R	
Volume						 17	 886		
Peak-Hour Factor	r DHF					0.92	0.92		
Hourly Flow Rate						18	963		
Percent Heavy V						5	<i></i>		
_		TT1 -1 -							
Median Type/Sto	rage	Unaiv	/ided			/			
RT Channelized?						_			
Lanes						0	2		
Configuration						L'	ГТ		
Upstream Signal	?		No				No		
	Approach		orthbound		1		uthboun		
1	Movement	7	8	9	ļ	10	11	12	
		L	Т	R		L	T	R	
Volume		 85							
Peak Hour Factor	r, PHF	0.92							
Hourly Flow Rate	e, HFR	92							
Percent Heavy V		5							
Percent Grade (0				0		
Flared Approach		/Storage	_		/		Ü		/
Lanes	· EXIDED.	1	-		/				/
		_							
Configuration]							
Approach	Delay, EB	Queue Le WB	ength, an	id Leve .hbounc		i Serv		hbound	 1
Approach						1 .			
Movement	1	4	7 -	8	9	-	10	11	12
Lane Config		LT	L						
v (vph)		18	92						
C(m) (vph)		1604	507						
V/C		0.01	0.18						
95% queue lengt	h	0.03	0.66						
Control Delay	11	7.3	13.7						
_									
LOS		A	В	10 0					
Approach Delay				13.7					
Approach LOS				В					

Analyst: JCE Inter.: PMBD-DRWY-#3 (PM9BD)

Agency: JOHN COLLINS ENGINEERS, P.C.

Area Type: All other areas

3/12/2007 Date:

Jurisd:

Period: WEEKDAY PEAK PM HIGHWAY HOUR Year : 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

DALICADE AGENTE / EIM CHDEET N/C C+: DDDODOSED CITE ACCESS

		,		EET N/S	S St: PPROPOS	DED SII	п песпро	
		SIC	SNALIZEI	INTERSE	CTION SUMMAR	2Y		
	Eas	tbound	West	oound	Northbour	ıd	Southbound	
	L	T R	L :	r R	L T	R	L T R	
No. Lan	.es 0	0 0	0	2 0	- 0 1	- 0	0 1 0	!
LGConfi	Į.			LTR	LT		TR	i
Volume	j			L4 217	152 93	j	87 239	j
Lane Wi	!		12	2.0	12.0	ļ	12.0	ļ
RTOR Vo	1			0			0	
Duratio	n 0.25	Area 1		ll other al Operat				
Phase C	ombination	1 2	3	4	5	6	7 8	
EB Lef				NB	Left A			
Thr				ļ	Thru A			
Rig		v		ļ	Right			
Ped WB Lef		X A		l I SB	Peds X Left			
Thr		A			Thru A			
Rig		A		j	Right A			
Ped		X		ĺ	Peds X			
NB Rig				EB	Right			
SB Rig		25 0		WB	Right			
Green Yellow		35.0 3.0			35.0 3.0			
All Red		2.0			2.0			
					Cycl	.e Leng	th: 80.0	secs
					ce Summary			secs
Appr/ Lane	Lane Group	Intersec Adj Sat Flow Rate	ction Pe Rat:		_			secs
		Adj Sat	Rat:	ios	ce Summary	Appr	oach	secs
Lane	Group Capacity	Adj Sat Flow Rate	Rat:	ios	ce Summary Lane Group	Appr	oach	secs
Lane Grp	Group Capacity	Adj Sat Flow Rate	Rat:	ios	ce Summary Lane Group	Appr	oach	secs
Lane Grp	Group Capacity nd	Adj Sat Flow Rate	Rat:	ios	ce Summary Lane Group	Appr	oach	secs
Lane Grp ———— Eastbou	Group Capacity nd	Adj Sat Flow Rate	Rat: v/c	ios g/C	ce Summary Lane Group	Appr	oach	secs
Lane Grp Eastbou	Group Capacity nd 1437	Adj Sat Flow Rate (s)	Rat: v/c	ios g/C	Lane Group Delay LOS	Appr	oach	secs
Lane Grp Eastbou Westbou	Group Capacity nd 1437	Adj Sat Flow Rate (s)	Rat: 	ios g/C	Lane Group Delay LOS	Appr Delay	oach	secs
Lane Grp Eastbou Westbou LTR Northbo	Group Capacity nd 1437 und 377	Adj Sat Flow Rate (s)	Rat: 	os g/C 0.44	Lane Group Delay LOS	Appr Delay	C C	secs
Lane Grp Eastbou Westbou LTR Northbo	Group Capacity nd 1437 und 377	Adj Sat Flow Rate (s)	Rat:	os g/C 0.44	Lane Group Delay LOS 20.6 C	Appr Delay	C C	secs

Phone: Fax:

E-Mail: _____OPERATIONAL ANALYSIS_____

Analyst: JCE

JOHN COLLINS ENGINEERS, P.C. Agency/Co.:

Date Performed: 3/12/2007

Date Performed: 3/12/2007
Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR
Tntersection: PMBD-DRWY-#3 (PM9BD)

Area Type: All other areas

Jurisdiction:

2012 BUILD TRAFFIC VOLUMES Analysis Year:

Project ID: 281

E/W St: PALISADES AVENUE / ELM STREET N/S St: PPROPOSED SITE ACCESS

_____VOLUME DATA_____

	Eas	tbou	nd	Westbound			No	rthbou	ınd	Southbound L T R		
ļ	L	Т	R	Ĺ	T	R	L	Т	R	L	Т	R
 Volume				<u></u> 140	614	217	<u></u> 152	93			 87	239
% Heavy Veh				5	5	5	5	5		i	5	5
PHF				0.92	_	0.92	!	0.92		i		0.92
PK 15 Vol				38	167	59	41	25		i	24	65
Hi Ln Vol										i		
% Grade				i	0		i	0		i	0	
Ideal Sat				i	1900		i	1900		i	1900	
ParkExist				i	1700		1	1700			1700	
NumPark				i			i			i		
No. Lanes	0	0	0	1 0	2	0		1	0	i 0	1	0
LGConfig	· ·	· ·	ŭ		LTI	R		LT	Ü		TR	Ū
Lane Width					12.0		i	12.0		i	12.0	
RTOR Vol				i		0	i			i		0
Adj Flow				i	1055	•	i	266		i	355	ū
%InSharedLn							i			i		
Prop LTs				İ	0.1	44	İ	0.62	2.0		0.0	0.0
Prop RTs				i o	.224		j 0	.000		i o	.732	
Peds Bikes	0			2		0				!		0
Buses	· ·			-	0	-		0		-	0	-
%InProtPhase	5			İ	-		İ	-		İ	-	

Duration 0.25 Area Type: All other areas

____OPERATING PARAMETERS_____

	Eas	stbou	ınd	We	stbou	nd	Northbound			Southbound			
	L	T	R	L	T	R	L	Т	R	L	Т	R	
										.			
Init Unmet					0.0			0.0			0.0		
Arriv. Type					3		3						
Unit Ext.				ĺ	3.0		İ	3.0		İ	3.0	ĺ	
I Factor				ĺ	1.00	0	İ	1.00	0	İ	1.00	0	
Lost Time				İ	2.0		İ	2.0		İ	2.0	į	
Ext of g				j	2.0		İ	2.0		İ	2.0	į	
Ped Min g		3.2		3.4						3.4			

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-#4

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

Study period (hrs): 0.25 Intersection Orientation: EW

				_	stments			
Major Street:	Approach		Eastbour		1 4	Westbou		
	Movement	1	2 T	3	4 L	5	6	
		L	Т	R	_ г	Т	R	
 Volume						965	5 40	
Peak-Hour Fact	or, PHF					0.9	0.9	2
Hourly Flow Ra	te, HFR					104	18 43	
Percent Heavy	Vehicles							
Median Type/St	orage	Und	ivided		/			
RT Channelized	?							
Lanes						2	0	
Configuration						Т	TR	
Upstream Signa	.1?		No			No		
 Minor Street:	Approach	 1	 Northbou	 ınd		Southbo	 ound	
	Movement	7	8	9	10		12	
		L	Т	R	L	Т	R	
Volume							197	
Peak Hour Fact							0.9	2
Hourly Flow Ra							214	
Percent Heavy	Vehicles						5	
Percent Grade			0			0		
Flared Approac	h: Exists?	/Storag	ge		/			/
Lanes							1	
Configuration							R	
 Approach	Delay, EB	Queue 1 WB		and Lev orthbour		Service	uthboun	
Movement	1	wь 4	1 7	8	9	1 10	11	u 12
Lane Config	1	4	<i>'</i>	0	9	1 10	Т Т	r
Lane Coming						I		K
v (vph)								214
C(m) (vph)								532
C(m) (vpn)								0.40
_								1 02
v/c	th							1.93
v/c 95% queue leng	th							1.93
v/c 95% queue leng Control Delay LOS	th							
v/c 95% queue leng Control Delay							16.2	16.2

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-#5

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

Intersection Of	rientation	: EW		St	tudy peri	lod (hrs	s): 0.	25
	Ve	hicle Vol	umes ar	nd Adjus	stments			
Major Street:	Approach	Ea	stbound	ì	V	Vestbour	nd	
	Movement	1	2	3	4	5	6	
		L	T	R	L	Т	R	
 Volume					140	865		
Peak-Hour Facto	or, PHF				0.92	0.92	2	
Hourly Flow Rat	te, HFR				152	940		
Percent Heavy \	Vehicles				5			
Median Type/Sto		Undiv	rided		/			
RT Channelized	?							
Lanes					() 2		
Configuration						LT T		
Upstream Signa:	1?		No			No		
Minor Street:			rthbour			Southbou		
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume		152						
Peak Hour Facto	or, PHF	0.92						
Hourly Flow Rat	te, HFR	165						
Percent Heavy '	Vehicles	5						
Percent Grade	(응)		0			0		
Flared Approacl	h: Exists	?/Storage	:		/			/
Lanes		1						
Configuration		I	ı					
		Queue Le						
Approach	EB 1	WB		thbound			ıthboun	
Movement	1	4	7 L	8	9	10	11	12
Lane Config		LT	Ъ		I			
v (vph)		152	165					
C(m) (vph)		1604	398					
C(III) (VPII)								
v/c		0.09	0.41					
v/c	th		0.41 1.99					
v/c 95% queue leng	th	0.09						
v/c 95% queue leng Control Delay	th	0.09 0.31	1.99					
v/c 95% queue leng Control Delay LOS Approach Delay		0.09 0.31 7.5	1.99 20.3	20.3				

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-#6

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

incersection o	Tiencacion.	17. 44		51	cady perio	Ju (III a	5). 0.	23
	Veh	icle Vo	lumes a	nd Adjus	stments			
Major Street:	Approach	E	astboun		We	estbour	nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
Volume					70	1070		
Peak-Hour Fact					0.92	0.92	2	
Hourly Flow Ra	te, HFR				76	1163	3	
Percent Heavy					5			
Median Type/St		Undi	vided		/			
RT Channelized	.?							
Lanes					0	2		
Configuration]	LT T		
Upstream Signa	1?		No			No		
Minor Street:	Approach	N	orthbou	 nd	S	outhbou	 ınd	
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume		76						
Peak Hour Fact	or, PHF	0.92						
Hourly Flow Ra	te, HFR	82						
Percent Heavy	Vehicles	5						
Percent Grade	(%)		0			0		
Flared Approac	h: Exists?	/Storag	е		/			/
Lanes		1						
Configuration			L					
					el of Serv			
Approach	EB	WB		rthbound			ıthboun	
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L					
v (vph)		76	82					
C(m) (vph)		1604	365					
v/c		0.05	0.22					
95% queue leng	th	0.15	0.85					
Control Delay		7.4	17.7					
LOS		A	С					
Approach Delay	-			17.7				
Approach LOS				С				

Analyst: JCE Inter.: PMBD-DRWY-7

Agency: JOHN COLLINS ENGINEERS, P.C. Area Type: All other areas Date: 4/20/2007 Jurisd: W/ SIGNALIZATION

Period: WEEKDAY PEAK PM HIGHWAY HOUR Year : 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

E/W St: PROPOSED SITE ACCESS N/S St: NEW MAIN STREET

E/W St:	PROPOSED	SITE ACCES			S St: NEW MA		
	 Eas L	Stbound T R	GNALIZEI Westk L I	ound	CCTION SUMMAI Northboun L T		outhbound T R
No. Lan LGConfi Volume Lane Wi RTOR Vo	g dth	0 0	 1 L 328 12.0	0 0	0 0	0 304	D 2 0 LT 921 12.0
Duratio	n 0.25	Area		l other al Operat			
Phase C EB Lef Thr Rig Ped WB Lef Thr Rig Ped NB Rig SB Rig Green Yellow All Red	u ht s t u ht s ht	X A X 30.0 3.0 2.0	3	4 NB SB EB WB	Left Thru Right Peds X Left A Thru A Right Peds X Right Right Right S0.0 3.0 2.0 Cycl	6 7	
Appr/	Lane	Adj Sat	Rati		ce Summary Lane Group		:h
Lane Grp	Group Capacity	Flow Rate (s)	 v/c	g/C	Delay LOS	Delay LO)S
Eastbou Westbou L Northbo	nd 573	1719	0.62	0.33	27.4 C	27.4 (2
Southbo	und						
LT	1880	3384	0.71	0.56	15.9 В	15.9 E	3
	Intersec	ction Delay	= 18.3	(sec/ve	eh) Interse	ection LOS	S = B

Phone: Fax: E-Mail:

_____OPERATIONAL ANALYSIS_____

Analyst: JCE

JOHN COLLINS ENGINEERS, P.C. Agency/Co.:

Agency/Co..

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR
PMBD-DRWY-7 Intersection:

E/W St: PROPOSED SITE ACCESS N/S St: NEW MAIN STREET

_____VOLUME DATA_____

	Eas	stbou	.nd	Wes	stbound Nor			Northbound			uthbou	und
	L	Т	R	L	T	R	L	T	R	Ĺ	T	R
Volume % Heavy Veh PHF PK 15 Vol Hi Ln Vol % Grade Ideal Sat ParkExist				328 5 0.92 89 	0						921 5 0.92 250 0 1900	
NumPark No. Lanes LGConfig Lane Width RTOR Vol Adj Flow %InSharedLn	0	0	0	1 L 12.0 	0	0	0	0	0	0	2 LT 12.0	0
Prop LTs Prop RTs Peds Bikes Buses %InProtPhase		5		 0	-11		 25	5		0	0.24	48

Duration 0.25 Area Type: All other areas

_____OPERATING PARAMETERS_____

	Eas	stbou	ınd	Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	Т	R	L	Т	R
							.					
Init Unmet				0.0							0.0	
Arriv. Type				3							3	
Unit Ext.				3.0			İ			ĺ	3.0	ĺ
I Factor				Ì	1.00	0	İ			ĺ	1.00	0
Lost Time				2.0			İ			İ	2.0	į
Ext of g				2.0			İ			İ	2.0	į
Ped Min g		3.4		İ			İ	3.4		İ		j

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-#8

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: NEW MAIN STREET

Incersection o	Tiencacion.	IND			scuay peri	.ou (III.s	, 0.2	2.0
	Veh	icle Vo	lumes a	nd Adju	stments			
Major Street:	Approach	N	orthbou	ınd	S	outhbour	nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	T	R	
Volume						1139	110	
Peak-Hour Fact	or, PHF					0.92	0.92	2
Hourly Flow Ra	te, HFR					1238	119	
Percent Heavy	Vehicles							
Median Type/St		Undi	vided		/			
RT Channelized	1.5					2	0	
Lanes						2	0	
Configuration	1.0						ΓR	
Upstream Signa	.1.3		No			No		
Minor Street:	Approach		estboun			astbound		
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume							63	
Peak Hour Fact	or, PHF						0.92	2
Hourly Flow Ra	te, HFR						68	
Percent Heavy							5	
Percent Grade	(%)		0			0		
Flared Approac	h: Exists?	/Storag	е		/			/
Lanes		_					1	
Configuration						Ι	₹	
Approach	Delay, NB	Queue L SB		and Levestbound	rel of Ser		bound	
Movement	1	4	7	8	9	10	11	12
	Δ.	4	/	0	9	10	11	r
Lane Config		I			 			K
v (vph)								68
C(m) (vph)								447
v/c								0.15
95% queue leng	th							0.53
Control Delay								14.5
LOS								В
Approach Delay	-						14.5	_
Approach LOS							В	
							_	

_____TWO-WAY STOP CONTROL SUMMARY_____

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-#9

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: SOUTH BROADWAY

Intersection C	rientation:	NS		St	udy peri	od (hrs	0.2	5
	Veh	icle Vol	lumes and	Adjus	stments			
Major Street:	Approach	No	orthbound		S	outhbou	.nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
Volume			630	6				
Peak-Hour Fact	or, PHF		0.92	0.92				
Hourly Flow Ra	te, HFR		684	6				
Percent Heavy	Vehicles							
Median Type/St RT Channelized		Undi	vided		/			
Lanes			2 0					
Configuration			T TR					
Upstream Signa	11?		No			No		
Minor Street:	Approach		estbound		E	astboun	.d	
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume				143				
Peak Hour Fact				0.92				
Hourly Flow Ra	te, HFR			155				
Percent Heavy	Vehicles			5				
Percent Grade	(%)		0			0		
Flared Approac	h: Exists?	/Storage	9		/			/
Lanes			1					
Configuration			R					
	Dolor	O110110 I	angth an	d T 0110	of Com			
Approach	Delay, NB	SB	ength, an	a веvе bound	er or ser		tbound	
	1	3Б 4	7	8	0	10	11	12
Movement	Т	4	/	0	9	10	т т	12
Lane Config		 			R			
v (vph)					155			
C(m) (vph)					691			
v/c					0.22			
95% queue leng	rth				0.86			
Control Delay					11.7			
LOS					В			
Approach Delay	,			11.7				
Approach LOS				В				

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-#10

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: NEW MAIN STREET

Movement	incersection o	TIEMCACIOM.	IND			scudy per.	ioa (iii s	,,, 0.2	2.5
Major Street: Approach Movement 1 2 3 4 5 6		Veh	icle Vo	lumes a	nd Adjı	ıstments			
Movement	Major Street:						Southbou	ınd	
L T R L T R	J					4	5	6	
Peak				Т		L	Т	R	
Sourly Flow Rate, HFR 418 58 Percent Heavy Vehicles Art Channelized?	 /olume						385	54	
Percent Heavy Vehicles	Peak-Hour Fact	or, PHF					0.92	0.92	2
Percent Heavy Vehicles	Hourly Flow Ra	te, HFR					418	58	
Median Type/Storage Undivided / KT Channelized? Sanes	_								
TR TR TR	Median Type/St	orage	Undi	vided		/			
## Configuration		. :					1	Λ	
### Approach							1	-	
Minor Street: Approach Westbound Eastbound Movement 7 8 9 10 11 12 12 1 T R		1 0		Mo			Mo	IK	
Movement 7 8 9 10 11 12 L T R L T R Volume Peak Hour Factor, PHF Ourly Flow Rate, HFR Percent Heavy Vehicles Percent Grade (%) Polared Approach: Exists?/Storage Janes Configuration Delay, Queue Length, and Level of Service Approach Movement 1 4 7 8 9 10 11 12 Jane Config Vercent Grade (%) Delay, Queue Length, and Level of Service Approach Movement 1 4 7 8 9 10 11 12 Jane Config Vercent Grade (%) Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Jane Config Vercent Grade (%) Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Jane Config Jane Config	Jpstream Signa	Τ;		NO			NO		
L T R L T R L T R	Minor Street:								
Tolume		Movement				!			
Delay, Queue Length, and Level of Service Delay, Queue Length, and Level of Service Delay Dela			L	Т	R	L	Т	R	
Tourly Flow Rate, HFR	 olume							16	
Percent Heavy Vehicles Percent Grade (%) Percent	Peak Hour Fact	or, PHF						0.92	2
Delay, Queue Length, and Level of Service	Hourly Flow Ra	te, HFR						17	
Tlared Approach: Exists?/Storage / / Approach R	Percent Heavy	Vehicles						0	
Tlared Approach: Exists?/Storage / / Approach R Delay, Queue Length, and Level of Service	Percent Grade	(%)		0			0		
Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Cane Config R T (vph) C(m) (vph) C(m) (vph) Control Delay Approach Delay Approach Delay T (von the config to the configuration of the config to the config to the config to the configuration of the config to th			/Storac	re		/			/
Delay, Queue Length, and Level of Service Approach Movement 1 4 7 8 9 10 11 12 Lane Config 7 (vph) C(m) (vph) 7/c 95% queue length Control Delay Approach Delay 11.0			,	, -		•		1	,
Delay, Queue Length, and Level of Service Approach Movement 1 4 7 8 9 10 11 12 Anne Config (vph) C(m) (vph) C(m) (vph) Control Delay Approach Delay 11.0									
Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config R 7 (vph) C(m) (vph) 7/c 0.03 P5% queue length Control Delay LOS BApproach Delay 11.0									
Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 11 12 Lane Config R 7 (vph) C(m) (vph) 7/c 0.03 P5% queue length Control Delay LOS BApproach Delay 11.0		Delav.	Oueue I	enath.	and Lev	zel of Sei	rvice		
Topon	pproach							tbound	
7 (vph) 17 (C(m) (vph) 616 7/C 0.03 95% queue length 0.09 11.0 Exproach Delay 11.0		1	4	7	8	9	10	11	12
7 (vph) 17 616 7/c 0.03 0.03 0.09 Control Delay 11.0 Bapproach Delay 11.0	ane Confiq								R
C(m) (vph) 7/c 0.03 85% queue length 0.09 Control Delay 11.0 Approach Delay 11.0									
7/C 0.03 05% queue length 0.09 Control Delay 11.0 B Approach Delay 11.0	_								
Os Sapproach Delay 11.0 Approach Delay 11.0	C(m) (vph)								
Control Delay 11.0 LOS B Approach Delay 11.0	7/C								0.03
B Approach Delay 11.0	5% queue leng	th							0.09
B Approach Delay 11.0									11.0
Approach Delay 11.0	_								
								11.0	
	Approach LOS							В	

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: WEEKDAY PEAK PM HIGHWAY HOUR

Intersection: PMBD-DRWY-#11

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: NEPPERHAN AVENUE
North/South Street: PROPOSED SITE ACCESS

## Configuration					~	oud, Pollo) G. (111 D)		
Major Street: Approach Movement 1 2 3 4 5 6		Veh	icle Vo	lumes an	d Adju	stments			
Movement 1 2 3	Major Street:				_		estbound	 1	
L T R L T R L T R	3		1	2	3	4	5	6	
Peak				Т		L			
Peak						· 			
Hourly Flow Rate, HFR Percent Heavy Vehicles									_
Percent Heavy Vehicles									2
Median Type/Storage	-						1699	54	
Configuration Configuratio	_								
Configuration T TR TR			Undi	vided		/			
## Configuration	RT Channelized	?							
### Delay, Queue Length, and Level of Service ### Delay, Queue Length, and Level of Southbound ### Delay, Queue Length, and Level of Service ### Delay Queue	Lanes						2	0	
### Delay, Queue Length, and Level of Service ### Delay, Queue Length, and Level of Southbound ### Delay, Queue Length, and Level of Service ### Delay Queue								-	
Minor Street: Approach Northbound Southbound Movement 7 8 9 10 11 12 L T R	-	12		No					
Movement 7 8 9 10 11 12 L T R L T R Volume Peak Hour Factor, PHF Hourly Flow Rate, HFR Percent Heavy Vehicles Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / / Lanes 1 Configuration R Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config V (vph) C(m) (vph) C(m) (vph) V/C 95% queue length Control Delay Lane Conford Control Delay Lane Control Delay Lane Conford Control Delay Lane Conford Control Delay Lane Control Delay Lane Conford Control Delay Lane Conford Control Delay Lane Conford Control Delay Lane Control Delay Lane Conford Control Delay Lane Conford Control Delay Lane Conford Con	opperedm bryna	- •		140			110		
L T R L T R Delay Composition Co	Minor Street:	Approach	N	orthboun	d	Sc	uthbour	nd	
Volume 50 Peak Hour Factor, PHF 0.92 Hourly Flow Rate, HFR 54 Percent Heavy Vehicles 5 Percent Grade (%) 0 0 Flared Approach: Exists?/Storage / / Lanes 1 Configuration R Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config R V (vph) 54 C(m) (vph) 54 C(m) (vph) 54 C(m) (vph) 55 Control Delay 0.16 Control Delay 17.4 Los Approach Delay 17.4		Movement	7	8	9	10	11	12	
Peak Hour Factor, PHF Hourly Flow Rate, HFR Percent Heavy Vehicles Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Heavy Vehicles Percent He			L	T	R	L	Т	R	
Peak Hour Factor, PHF Hourly Flow Rate, HFR Percent Heavy Vehicles Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Heavy Vehicles Percent He								 5.0	
Hourly Flow Rate, HFR Percent Heavy Vehicles Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Grade (%) Percent Heavy Vehicles Percent Grade (%) Percent Heavy Vehicles Percent Heavy		or DUE							2
Percent Heavy Vehicles Percent Grade (%) Percent									4
Delay, Queue Length, and Level of Service	_							_	
Flared Approach: Exists?/Storage	_						•	5	
Delay, Queue Length, and Level of Service Delay, Queue Length, and Level of Service Delay Dela				-			0		
Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config R V (vph) C(m) (vph) V/c 95% queue length Control Delay LOS Approach Delay 17.4	Flared Approac	h: Exists?	/Storag	е		/			/
Delay, Queue Length, and Level of Service Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config R V (vph) C(m) (vph) V/c 95% queue length Control Delay LOS Approach Delay 17.4	Lanes							1	
Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config R	Configuration						F	2	
Approach EB WB Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Config R									
Movement 1 4 7 8 9 10 11 12 Lane Config									
Lane Config v (vph) C(m) (vph) v/c 95% queue length Control Delay LOS Approach Delay 17.4	Approach								
v (vph) 54 C(m) (vph) 344 v/c 0.16 95% queue length 0.55 Control Delay 17.4 LOS C Approach Delay 17.4	Movement	1	4	7	8	9	10	11	12
C(m) (vph) 344 v/c 0.16 95% queue length 0.55 Control Delay 17.4 LOS C Approach Delay 17.4	Lane Config								R
C(m) (vph) 344 v/c 0.16 95% queue length 0.55 Control Delay 17.4 LOS C Approach Delay 17.4	v (vph)								 54
v/c 0.16 95% queue length 0.55 Control Delay 17.4 LOS C Approach Delay 17.4	_								
95% queue length Control Delay LOS Approach Delay 17.4 17.4	_ · · · · · _ · · ·								
Control Delay 17.4 LOS C Approach Delay 17.4	· • -	+ h							
LOS C Approach Delay 17.4		CII							
Approach Delay 17.4	_								
									С
Approach LOS C									
	Approach LOS							С	

Analyst: JCE Inter.: SATBD-DRWY-1

Agency: JOHN COLLINS ENGINEERS, P.C. Area Type: All other areas

Date: 4/20/2007

Jurisd:

Period: SATURDAY PEAK HOUR Year : 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

E/W St: NEPPERHAN AVENUE N/S St: PROPOSED SITE ACCESS / WAVERLY

	Eas	stbou	nd	We	stbou:	nd	Noi	cthbo	und	Sc	uthbo	ound
	L	T	R	L	T	R	Ĺ	Т	R	Ĺ	Т	R
No. Lanes	1	3	0		3	0	- <u>-</u>	1	0	- C	1	0
LGConfig	L	TR		L	TR		L	TR			LI	TR.
Volume	25	2029	8	68	1090	86	160	0	80	80	0	22
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		Ì	12.0)
RTOR Vol	İ		0	İ		0	İ		0	İ		0
Duration	0.25		Area	Type:	All	other	areas					
				Si	gnal	Opera	tions					
Phase Combi	natio	n 1	2	3	4			5	6	7	,	8
ER Left			7\			İNB	T.of+	7\				

Dur	ation	0.25		Area T	ype: A	11 ot	cher	areas					
					Sign	al Or	perat	ions					
Pha	se Combi	nation	1	2	3	4			5	6	7	8	
EB	Left			A			NB	Left	A				
	Thru		A					Thru	A				
	Right		A					Right	A				
	Peds		X	X				Peds	X				
WB	Left			A			SB	Left	A				
	Thru		A					Thru	A				
	Right		A					Right	A				
	Peds		X	X				Peds	X				
NB	Right						EB	Right					
SB	Right						WB	Right					
Gre	en		55.0	10.0					20.0				
Yel	low		3.0	3.0					3.0				
All	Red		2.0	2.0					2.0				

						Cycl	e Lengt	th: 100.0	secs
		Intersec	tion Pe	erformanc	ce Summa	ary			
Appr/ Lane	Lane Group	Adj Sat Flow Rate		.08	Lane G	Group	Appro	oach	
	_	(s)		g/C	Delay	LOS	Delay	LOS	
Eastbou	 nd								
L	168	1683	0.16	0.10	41.6	D			
TR	2709	4926	0.82	0.55	20.5	С	20.7	C	
Westbou	nd								
L	171	1709	0.43	0.10	44.1	D			
TR	2677	4867	0.48	0.55	13.9	В	15.5	В	
Northbo	und								
L	251	1253	0.69	0.20	45.1	D			
TR	296	1480	0.29	0.20	34.6	С	41.6	D	
Southbo	und								
LTR	211	1055	0.53	0.20	38.2	D	38.2	D	
	Intersec	tion Delay	= 20.8	(sec/ve	eh) Ir	nterse	ction 1	LOS = C	

Phone: Fax: E-Mail:

_____OPERATIONAL ANALYSIS______

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR

Intersection: SATBD-DRWY-1
Area Type: All other areas

Jurisdiction:

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

E/W St: NEPPERHAN AVENUE N/S St: PROPOSED SITE ACCESS / WAVERLY

_____VOLUME DATA______

	Eas	stbou	nd	Wes	stbour	nd	No	rthboi	ınd	Sou	ıthboı	ınd
	L	T	R	Ĺ	Т	R	L	Т	R	L	Т	R
Volume	 25	2029	8	 68	1090	86	 160	0	80	 80	0	22
% Heavy Veh	1	5	5	5	5	5	5	5	5	5	5	5
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PK 15 Vol	7	551	2	18	296	23	43	0	22	22	0	6
Hi Ln Vol				j			İ			j		
% Grade		0		İ	0		İ	0		İ	0	
Ideal Sat	1900	1900		1900	1900		1900	1900		İ	1900	
ParkExist				İ			İ			j		
NumPark				İ			Ì			İ		
No. Lanes	1	3	0	1	3	0	1	1	0	0	1	0
LGConfig	L	TR		L	TR		L	TR		ĺ	LTI	?
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		ĺ	12.0	
RTOR Vol			0			0			0			0
Adj Flow	27	2214		74	1278		174	87			111	
%InSharedLn												
Prop LTs		0.00	0.0		0.00	00	1.000	0.00	0.0		0.78	34
Prop RTs	0	.004		0	.073		1	.000		0	.216	
Peds Bikes	2 !	5 ()	25	5 (0	2 !	5 ()	25	5 ()
Buses	0	0		0	0		0	0			0	
%InProtPhase	9											

Duration 0.25 Area Type: All other areas

____OPERATING PARAMETERS_____

	Ea	stbound	We	stbound	Northbound	Southbound
	L	T R	L	T R	LTR	L T R
Init Unmet	 0 . 0	0.0	 0.0	0.0	0.0 0.0	0.0
Arriv. Type	3	3	3	3	3 3	3
Unit Ext.	3.0	3.0	3.0	3.0	3.0 3.0	3.0
I Factor	ĺ	1.000	İ	1.000	1.000	1.000
Lost Time	2.0	2.0	2.0	2.0	2.0 2.0	2.0
Ext of g	2.0	2.0	2.0	2.0	2.0 2.0	2.0
Ped Min g	İ	3.4	İ	3.4	3.4	3.4

___TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR

Intersection: SATBD-DRWY-#2

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: ELM STREET

North/South Street: PROPOSED SITE DRIVEWAY

Study period (hrs): 0.25 Intersection Orientation: EW

					2 22 04 7	1	(/	0.2	
	Veh	icle Vol	lumes and	Adjus	stme	nts			
Major Street: A	Approach	Εá	astbound			Wes	stbound	l	
N	Movement	1	2	3		4	5	6	
		L	Т	R	İ	L	Т	R	
Volume						 15	885		
Peak-Hour Factor	c, PHF					0.92	0.92		
Hourly Flow Rate						16	961		
Percent Heavy Ve						5			
Median Type/Ston		Undiv	vided			/			
RT Channelized?	age	Olidi	Viaca			,			
Lanes						0	2		
						_			
Configuration						L'L	ГТ		
Upstream Signal?	?		No				No		
Minor Street: A	 Approach	N	 orthbound			 Sot	 ıthboun	 ıd	
N	Movement	7	8	9		10	11	12	
		L	T	R	İ	L	Т	R	
Volume		13							
Peak Hour Factor	^. PHF	0.92							
Hourly Flow Rate		14							
Percent Heavy Ve		5							
Percent Grade (%		3	0				0		
Flared Approach		/C+0x20	-		,		U		/
	EXISCS:	_	=		/				/
Lanes		1	_						
Configuration]	_						
	D - 1 -				. 1				
7			ength, an	a Leve hbound		i servi			 1
Approach	EB	WB						hbound	
Movement	1	4	7	8	9		LO	11	12
Lane Config		LT	L						
v (vph)		16	14						
C(m) (vph)		1604	512						
V/C		0.01	0.03						
95% queue length	ı	0.03	0.08						
Control Delay		7.3	12.2						
LOS		7 . J A	В						
		A	ם	12.2					
Approach Delay									
Approach LOS				В					

Analyst: JCE Inter.: SATBD-DRWY-#3 (SAT9BD)

Agency: JOHN COLLINS ENGINEERS, P.C. Area Type: All other areas

Date: 3/12/2007

Jurisd:

Period: SATURDAY PEAK HOUR Year : 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

E/W St: PALISADES AVENUE / ELM STREET N/S St: PROPOSED SITE ACCESS

	Eastbo			D INTERSE bound	_	thbour		Sout	hboi	ınd	- 1
	L T	R		T R	L	T	!	L	T	R	
No. Lanes LGConfig	0 (0 0	0	2 0 LTR	0	1 LT	0	0	1 TR	0	
Volume Lane Width RTOR Vol		j 		24 174 2.0 0		110 12.0	 		18 12.0	192	2
Duration	0.25	Area T		ll other							
Phase Combi	nation 1	2	Signa 3	al Operat 4	lons	 5	 6			 3	
EB Left Thru			-	NB	Left Thru	A A					
Right Peds	X				Right Peds	х					
NB Left	А			SB	Left						
Thru	A				Thru	A					
Right Peds	A X				Right Peds	A X					
IB Right	Λ			EB	Right						
SB Right				WB	Right						
Green	35					35.0					
/ellow	3.0	()									
						3.0					
	2.0					2.0	le Leng	th: 8	30.0		sec
	2.0	0 _Intersec	tion P	erformanc	e Summ	2.0 Cyc			30.0		sec
All Red Appr/ Lan	2.0 .e	0 _Intersec Adj Sat		erformanc ios		2.0 Cycl ary			30.0		sec
All Red Appr/ Lan Lane Gro	2.0 e <i>I</i>	O _Intersec Adj Sat low Rate	Rat:	ios 	Lane	2.0 Cycl ary Group	Appr	oach	30.0		sec
all Red appr/ Lan Lane Gro	2.0 e <i>I</i>	0 _Intersec Adj Sat				2.0 Cycl ary Group		oach	30.0		sec
All Red Appr/ Lan Lane Gro	2.0 e <i>I</i>	O _Intersec Adj Sat low Rate	Rat:	ios 	Lane	2.0 Cycl ary Group	Appr	oach	30.0		sec
All Red Appr/ Lan Lane Gro Grp Cap	2.0 e <i>I</i>	O _Intersec Adj Sat low Rate	Rat:	ios 	Lane	2.0 Cycl ary Group	Appr	oach	30.0		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound	e Pacity	O _Intersec Adj Sat low Rate	Rat. v/c	ios 	Lane Delay	2.0 Cyclary Group LOS	Appr	oach	30.0		sec
All Red Appr/ Lan Lane Gro Grp Cap Eastbound	e Pacity	O _Intersec Adj Sat low Rate (s)	Rat. v/c	ios g/C	Lane Delay	2.0 Cyclary Group LOS	Appr	oach	30.0		sec
Appr/ Landane Gro Exp Cap Castbound Jestbound TR 14	e in a second se	O _Intersec Adj Sat low Rate (s)	Rat. v/c	ios g/C	Lane Delay 19.3	2.0 Cyclary Group LOS	Appr Delay	oach	30.0		sec
All Red Appr/ Lan Cane Gro Grp Cap Eastbound Vestbound LTR 14 Northbound	e in a second se	Intersec Adj Sat low Rate (s)	Rat. v/c	ios g/C 	Lane Delay 19.3	2.0 Cyclary Group LOS	Appr Delay	oach LOS	30.0		sec
All Red Appr/ Lan Lane Gro Erp Cap Eastbound Vestbound LTR 14 Vorthbound LT 38	e pup Fiacity	Intersec Adj Sat low Rate (s)	Rat. v/c	ios g/C 	Lane Delay 19.3	2.0 CyclaryGroup LOS	Appr Delay	oach LOS	30.0		sec

Phone: Fax: E-Mail:

_____OPERATIONAL ANALYSIS_____

Analyst:

JCE JOHN COLLINS ENGINEERS, P.C. Agency/Co.:

Agency/co..

Date Performed: 3/12/2007

Analysis Time Period: SATURDAY PEAK HOUR

Intersection: SATBD-DRWY-#3 (SAT9BD)

Area Type: All other areas

Jurisdiction:

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

E/W St: PALISADES AVENUE / ELM STREET N/S St: PROPOSED SITE ACCESS

_____VOLUME DATA______

	Eas	tbou	nd	Wes	stbou	nd	No	rthbou	ınd	So	uthbo	und
	L	Т	R	L 	T	R	L	Т	R	L l	Т	R
Volume				201	524	174	186	110			118	192
% Heavy Veh				5	5	5	5	5			5	5
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
PK 15 Vol				55	142	47	51	30			32	52
Hi Ln Vol												
% Grade					0			0			0	
Ideal Sat				İ	1900		Ì	1900		ĺ	1900	
ParkExist				ĺ			ĺ			İ		
NumPark				İ			Ì			İ		
No. Lanes	0	0	0	0	2	0	0	1	0	0	1	0
LGConfig				İ	LTI	.?.	Ì	$_{ m LT}$		İ	TR	
Lane Width				İ	12.0		İ	12.0		İ	12.0	
RTOR Vol				İ		0	Ì			İ		0
Adj Flow	ĺ			İ	977		Ì	322		İ	337	
%InSharedLn				İ			İ			İ		
Prop LTs	ĺ			İ	0.2	23	Ì	0.62	27	İ	0.0	0 0
Prop RTs				j o	.193		j 0	.000		j o	.620	
Peds Bikes	0			2	5 (0	İ			j 2	5	0
Buses				i	0		İ	0		İ	0	
%InProtPhase	· 2			İ			İ			İ		

Duration 0.25 Area Type: All other areas

_____OPERATING PARAMETERS_____

	Eas	stbou	ınd	We	stbou	nd	No	rthbo	und	So	uthbo	und
	L	T	R	L	T	R	L	Т	R	L	Т	R
Init Unmet					0.0			0.0			0.0	
Arriv. Type					3			3			3	
Unit Ext.				ĺ	3.0		İ	3.0		İ	3.0	į
I Factor				ĺ	1.00	0	İ	1.00	0		1.00	0
Lost Time				j	2.0		İ	2.0		İ	2.0	į
Ext of g				İ	2.0		İ	2.0		İ	2.0	į
Ped Min g		3.2		İ	3.4		İ			İ	3.4	j

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR

Intersection: SATBD-DRWY-#4

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

				~	oudy Poli	- ()	0	- 0
	Veh	nicle V	olumes a	and Adju	stments			
Major Street:	Approach]	Eastbour	nd	V	Westbound	i	
	Movement	1	2	3	4	5	6	
		L	T	R	L	T	R	
Volume						 867	 35	
Peak-Hour Fact	or, PHF					0.92	0.92	2
Hourly Flow Ra	ate, HFR					942	38	
Percent Heavy	Vehicles							
Median Type/St		Und:	ivided		/			
RT Channelized								
Lanes						2	0	
Configuration							ΓR	
Upstream Signa	12		No			No	. 10	
opscream bigna			110			NO		
Minor Street:	Approach		Northbou	 und		 Southbour	 ıd	
	Movement	7	8	9	10	11	12	
		L	T	R	L	T	R	
Volume							30	
Peak Hour Fact	or, PHF						0.92	2
Hourly Flow Ra							32	
Percent Heavy							5	
Percent Grade			0			0	-	
Flared Approac		/Storac	_		/	Ü		/
Lanes		/ DC01 a	50		,		1	,
Configuration						т	5	
	Delav	0116116 1	Length	and Lev	el of Sei	cui de		
Approach	EB	WB		orthboun			 hbound	 3
Movement	1	4	7	8	9	10	11	12
Lane Config	_	7	¦ ′	O		10	11	R
Daile Colling			l		I			K
v (vph)								32
C(m) (vph)								572
A\C								0.06
95% queue leng	rth							0.18
Control Delay	CII							11.7
_								
LOS							11 🗗	В
Approach Delay	r						11.7	
Approach LOS							В	

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR

Intersection: SATBD-DRWY-#5

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

incersection o	TIEHCACIOH.	17. 44		50	Ludy pe	IIOG (III	5). 0.	23
	Veh	icle Voi	lumes a	nd Adjus	stments			
Major Street:	Approach		astboun			Westbou	 nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
Volume					20	1 701		
Peak-Hour Fact	or, PHF				0.	92 0.9	2	
Hourly Flow Ra	te, HFR				21	8 761		
Percent Heavy	Vehicles				5			
Median Type/St		Undi	vided		/			
RT Channelized	.?							
Lanes						0 2		
Configuration	_					LT T		
Upstream Signa	1?		No			No		
Minor Street:	Approach	N	orthbou	 nd		Southbo	und	
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume		186						
Peak Hour Fact	or, PHF	0.92						
Hourly Flow Ra	te, HFR	202						
Percent Heavy	Vehicles	5						
Percent Grade	(응)		0			0		
Flared Approac	h: Exists?	/Storage	е		/			/
Lanes		1						
Configuration]	L					
			. 1					
7	Delay,							
Approach	EB	WB		rthbound			uthboun	
Movement	1	4 LT	7 L	8	9	10	11	12
Lane Config		пт						
v (vph)		218	202					
C(m) (vph)		1604	363					
v/c		0.14	0.56					
95% queue leng	th	0.47	3.24					
Control Delay		7.6	26.7					
LOS		A	D					
Approach Delay				26.7				
Approach LOS				D				

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR

Intersection: SATBD-DRWY-#6

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PALISADE AVENUE

North/South Street: PROPOSED SITE DRIVEWAY

incersection o	TTencacion.	T: 44		5	cudy per	100 (111	5). 0.	23
	Veh	icle Vo	lumes a	nd Adjus	stments_			
Major Street:	Approach	E	astbound	d		Westbou	nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
Volume					100	818		
Peak-Hour Fact	or, PHF				0.9	0.9	2	
Hourly Flow Ra	te, HFR				108	889		
Percent Heavy	Vehicles				5			
Median Type/St RT Channelized		Undi	vided		/			
	·					0 0		
Lanes						0 2		
Configuration	1.0		NT -			LT T		
Upstream Signa	1;		No			No		
Minor Street:	Approach	N	orthbou			Southbo	und	
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume		93						
Peak Hour Fact	or, PHF	0.92						
Hourly Flow Ra	te, HFR	101						
Percent Heavy	Vehicles	5						
Percent Grade	(%)		0			0		
Flared Approac	h: Exists?	/Storag	е		/			/
Lanes		1						
Configuration			L					
	Delay,	Queue L						
Approach	EB	WB		rthbound			uthboun	
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L					
v (vph)		108	101					
C(m) (vph)		1604	395					
v/c		0.07	0.26					
95% queue leng	th	0.22	1.00					
Control Delay		7.4	17.2					
LOS		A	С					
Approach Delay				17.2				
Approach LOS				С				

Analyst: JCE Inter.: SATBD-DRWY-7

Agency: JOHN COLLINS ENGINEERS, P.C. Area Type: All other areas Date: 4/20/2007 Jurisd: W/ SIGNALIZATION

Period: SATURDAY PEAK HOUR Year : 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

E/W St: PROPOSED SITE ACCESS N/S St: NEW MAIN STREET

	Eas	tbou	nd	Wes	tbou			SUMMA thbou		Sot	uthbou	ınd
	L	Т	R	L	Т	R	L	Т	R	L	Т	R
No. Lanes LGConfig Volume Lane Width RTOR Vol	 0 	0	0	1 L 396 12.0	0	0	0	0	0	0	2 LT 701 12.0	0
Duration	0.25		Area T									
 Phase Combi	 nation	 1	2	Sig	gna⊥ 4	Operat 	ions		6		8	
EB Left Thru Right		· <u> </u>	2	3	1	NB 	Left Thru Right		O	,	Ü	,
Peds WB Left Thru Right		X A				 SB 	Peds Left Thru Right	X A A				
Peds NB Right SB Right		X				 EB WB	Peds Right Right	Х				
Green Yellow All Red		30.0 3.0 2.0						50.0 3.0 2.0			0.0	seo
								Сус	le Leng	gth:	90.0	500
			ntersec					ary				
		Ad	ntersed j Sat w Rate			ormanc 		ary		gth: roach		
Lane Gro		Ad: Flor	j Sat		tios			ary Group 	App:	roacl	 1 	
Lane Gro	up acity 	Ad: Flor	j Sat w Rate (s)	Ra	atios g g		Lane	ary Group 	App:	roack	 1 	
Lane Gro Grp Cap Eastbound Westbound L 57	up acity 	Adj Flow	j Sat w Rate (s)	Ra v/c	atios g g	/C	Lane Delay	ary Group LOS	App: Dela	roack	 1 	
Lane Gro Grp Cap Eastbound Westbound L 57 Northbound	up acity 	Adj Flow	j Sat w Rate (s)	Ra v/c	atios g	/C	Lane Delay	ary Group LOS 	App: Dela	roack	 1 	

Phone: Fax:

E-Mail:

_____OPERATIONAL ANALYSIS_____

Analyst:
Agency/Co.:
Date Performed:
Analysis Time Period:
Intersection:
Area Type:

JCE
JOHN COLLINS ENGINEERS, P.C.
4/20/2007
SATURDAY PEAK HOUR
SATBD-DRWY-7
All other

E/W St: PROPOSED SITE ACCESS N/S St: NEW MAIN STREET

_____VOLUME DATA_____

	Eas	stbou	nd	Wes	tbou	nd	No	rthbo	und	So	uthbou	ınd
	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Volume % Heavy Veh PHF PK 15 Vol Hi Ln Vol % Grade Ideal Sat ParkExist				396 5 0.92 108 	0					426 5 0.92 116 	701 5 0.92 190 0	
NumPark No. Lanes LGConfig Lane Width RTOR Vol Adj Flow %InSharedLn	0	0	0	1 L 12.0 	0	0	 0 	0	0	0	2 LT 12.0	0
Prop LTs Prop RTs Peds Bikes Buses %InProtPhase	25	5		 0			 2! 	5		0	0.37	78

Duration 0.25 Area Type: All other areas

____OPERATING PARAMETERS_____

	Eastbound			Westbound			Northbound			Southbound		
	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Init Unmet				0.0			-				0.0	I
Arriv. Type				3							3	
Unit Ext.				3.0							3.0	
I Factor					1.00	0					1.00	0
Lost Time				2.0							2.0	
Ext of g				2.0			ĺ			İ	2.0	į
Ped Min g		3.4		İ			İ	3.4		İ		į

____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR

Intersection: SATBD-DRWY-#8

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: NEW MAIN STREET

incersection o	TTEIICACIOII.	IND			scudy peri	.ou (III.s) • 0 . 2	2.5	
	Veh	icle Vo	olumes a	nd Adju	ıstments				
Major Street:	Approach	N	Iorthbou	.nd	5	Southbou	.nd		
	Movement	1	2	3	4	5	6		
		L	Т	R	L	Т	R		
 /olume						1014	83		
Peak-Hour Fact	or, PHF					0.92	0.92	2	
Hourly Flow Ra	te, HFR					1102	90	90	
Percent Heavy	Vehicles								
Median Type/St RT Channelized	orage	Undi	vided		/				
Lanes	· •					2	0		
							_		
Configuration	1 0		Mo			=	TR		
Jpstream Signa	Τ;		No			No			
Iinor Street:	Approach		lestboun			Castboun			
	Movement	7	8	9	10	11	12		
		L	T	R	L	T	R		
olume							74		
eak Hour Fact	or, PHF						0.92	2	
Hourly Flow Ra	te, HFR						80		
Percent Heavy							5		
Percent Grade	(%)		0			0			
lared Approac		/Storac	re		/			/	
Lanes			•				1	•	
Configuration							R		
 approach	Delay, NB	Queue I SB		and Lever	zel of Ser R		tbound		
lovement	1	4	7	8	9	10	11	12	
ane Config	_	-	,	O		10		R	
		I			 				
(vph)								80	
!(m) (vph)								498	
7/C								0.16	
95% queue length								0.57	
Control Delay								13.6	
JOS								В	
Approach Delay							13.6		
Approach LOS							В		
							_		

_____TWO-WAY STOP CONTROL SUMMARY_____

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR

Intersection: SATBD-DRWY-#9

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: SOUTH BROADWAY

Intersection O	rientation:	NS		St	udy peri	od (nrs): 0.2	0
	Veh	icle Vol	umes and	Adjus	tments			
Major Street:	Approach	No	rthbound		S	outhbou	nd	
	Movement	1	2	3	4	5	6	
		L	Т	R	L	T	R	
Volume			548	7				
Peak-Hour Fact	or, PHF		0.92	0.92				
Hourly Flow Ra	te, HFR		595	7				
Percent Heavy	Vehicles							
Median Type/St RT Channelized		Undiv	rided		/			
Lanes	•		2 0					
Configuration			T TR					
Upstream Signa	12		No			No		
	·							
Minor Street:			estbound			astboun		
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
Volume				48				
Peak Hour Fact	or, PHF			0.92				
Hourly Flow Ra	te, HFR			52				
Percent Heavy	Vehicles			5				
Percent Grade	(%)		0			0		
Flared Approac	h: Exists?	/Storage	2		/			/
Lanes			1					
Configuration			R					
			ength, an		el of Ser			
Approach	NB	SB		bound			tbound	
Movement	1	4	7	8	9	10	11	12
Lane Config					R			
v (vph)					52			
C(m) (vph)					732			
v/c					0.07			
95% queue length					0.23			
Control Delay					10.3			
LOS					В			
Approach Delay				10.3				
Approach LOS				В				

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR Intersection: SATBD-DRWY-#10

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: PROPOSED SITE ACCESS

North/South Street: NEW MAIN STREET

Intersection C	or rentation.	NS		2	Study per:	rod (III.s): 0.2	25
					stments_			
Major Street:			orthbour			Southbou		
	Movement	1	2	3	4	5	6	
		L	Т	R	L	Т	R	
 Volume						340	59	
Peak-Hour Fact	or, PHF					0.92	0.92	2
Hourly Flow Ra	ite, HFR					369	64	
Percent Heavy	Vehicles							
Median Type/St		Undi	vided		/			
RT Channelized	l?							
Lanes						1	0	
Configuration						•	ΓR	
Upstream Signa	11?		No			No		
Minor Street:			estbound			Eastbound		
	Movement	7	8	9	10	11	12	
		L	Т	R	L	Т	R	
 Volume							5	
Peak Hour Fact	or, PHF						0.92	2
Hourly Flow Ra	ite, HFR						5	
Percent Heavy							0	
Percent Grade	(%)		0			0		
Flared Approac	h: Exists?	/Storag	e		/			/
Lanes		_					1	
Configuration]	R	
	Delay,	Queue L	ength, a	and Lev	rel of Sea	rvice		
Approach	NB	SB	Wes	stbound	l	Eas	tbound	
Movement	1	4	7	8	9	10	11	12
Lane Config					ĺ			R
 v (vph)								 5
C(m) (vph)								653
v/c								0.01
	r+h							0.01
95% queue length								10.6
Control Delay LOS								10.6 B
							10.6	Þ
Annuagh Dal							1 II D	
Approach Delay Approach LOS	7						В	

_____TWO-WAY STOP CONTROL SUMMARY__

Analyst: JCE

Agency/Co.: JOHN COLLINS ENGINEERS, P.C.

Date Performed: 4/20/2007

Analysis Time Period: SATURDAY PEAK HOUR Intersection: SATBD-DRWY-#11

Jurisdiction:

Units: U. S. Customary

Analysis Year: 2012 BUILD TRAFFIC VOLUMES

Project ID: 281

East/West Street: NEPPERHAN AVENUE
North/South Street: PROPOSED SITE ACCESS

incersection o.	r rentacion.	T: W			study per	ioa (iii s	5). 0.2	2.0	
	Veh	icle Vo	lumes a	and Adju	stments_				
Major Street:	Approach		astbour			Westbour	 ıd		
J	Movement	1	2	3	4	5	6		
		L	T	R	L	Т	R		
 Volume						1316	5 50		
Peak-Hour Facto	or, PHF					0.92	0.92	2	
Hourly Flow Ra						1430	54		
Percent Heavy '									
Median Type/Sto RT Channelized	orage	Undi	vided		/				
Lanes	•					2	0		
Configuration						T	TR		
Upstream Signa:	1 2		No			No	110		
Minor Street:	Approach		orthbou			Southbou			
	Movement	7	8	9	10	11	12		
		L	Т	R	L	Т	R		
 Volume							50		
Peak Hour Facto	or, PHF						0.92	2	
Hourly Flow Rat	te, HFR					54			
Percent Heavy '	Vehicles						5		
Percent Grade	(%)		0			0			
Flared Approacl	h: Exists?	/Storaq	e		/			/	
Lanes							1		
Configuration							R		
					rel of Se				
Approach	EB	WB		rthbour			thbound		
Movement	1	4	7	8	9	10	11	12	
Lane Config								R	
v (vph)								54	
C(m) (vph)								411	
V/C								0.13	
95% queue length								0.45	
Control Delay								15.1	
LOS								С	
Approach Delay							15.1		
Approach LOS							C		
11-11-11-11							-		