

McGOEY, HAUSER and EDSALL CONSULTING ENGINEERS D.P.C.

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Principal Emeritus: RICHARD D. McGOEY, P.E. (NY & PA) WILLIAM J. HAUSER, P.E. (NY, NJ & PA)

TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS

PROJECT NAME: PROJECT NO.: PROJECT LOCATION: REVIEW DATE: MEETING DATE: REPRESENTATIVE: DUNKIN DONUTS 14-02 SECTION 14, BLOCK. 1, LOT 43 13 MARCH 2015 19 MARCH 2015 JOSEPH MINUTA

- 1. The Applicants are proposing the demolition and reconstruction on the same building footprint as an existing structure on the site. The change of use from retail to convenient store with or without gasoline filing station requires that the project obtain variances for existing nonconforming bulk regulations. The following variances are required, front yard required 60 feet state highway provided NYS Route 32- 21.5 feet, NYS Route 300 - 4.9 feet. Note that Section 185-18 allows for modification of front yards where existing structures on adjoining lots are less than the 60 foot requirement, however, this lot is significantly less than the average of any adjoining lots combined.
- 2. Information pertaining to the existing subsurface sanitary sewer disposal system should be provided for review. Hydraulic loading from proposed convenient store should be identified in the analysis of the existing septic system.
- 3. NYSDOT approval for the project is required. Ken Wersted's comments regarding the extension of the stone wall into the project site should be received.
- 4. Revised Town of Newburgh Water System Notes should be added to the plans. (2015 version provided).
- 5. Building is proposed to be sprinklered. Sprinkler and potable water supply should be laid out in compliance with Town of Newburgh regulations whereby valves for sprinkler system are on the water main side of the valve for the potable water such that potable water is terminated when sprinkler supply is terminated.
- 6. Impervious surfaces on the site remain the same such that no significant impact for runoff will result from the redeveloped project.
 - Regional Office 111 Wheatfield Drive Suite 1 Milford, Pennsylvania 18337 570-296-2765 •



- 7. The Planning Board should review the lighting fixtures proposed. A 20.5 foot light fixture is proposed in more pedestrian scale lighting may be called for on the small site. Design guidelines identify 16 foot maximum height lighting for such a site. The change may require an additional light fixture on the site. Currently one 20.5 foot light fixture is proposed.
- 8. Parking in front yard is identified on the plan based on existing lot geometry and building location. A dry laid stone wall is identified on the plan as a mitigation measure. Planning Board should confirm acceptability of the stone wall screening mitigation.
- 9. It is noted that the new parking area will be milled and overlaid with a new pavement where existing asphalt is located on the site. A small portion of new asphalt section will be placed for the northerly most parking expansion. Entire parking lot will then be restriped with new compliant striping.
- 10. County Planning referral is required.

Respectfully submitted,

McGoey, Hauser & Edsall Consulting Engineers, D.P.C.

Patrick J. Hines Principal Traffic Impact Assessment Dunkin Donuts - Newburgh Town of Newburgh, NY

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Appendix A: Traffic Count Volume Data

The Chazen Companies February 13, 2015

The Chazen Companies 547 River Street

547 River Street Troy, New York, 12180 www.chazencompanies.com

Project No: 31405.01 Counted By: S. Radloff Intersection: Route 300 and Route 32 Time: 7:00 - 9:00 AM

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File Name : TMC_Route 300&32_AM Peak Hour Site Code : 31405.01 Start Date : 2/5/2015 Page No : 1

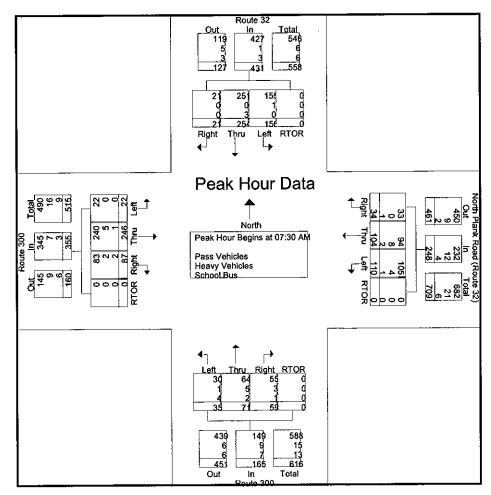
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		F	Route	32		Norti				ute 32)			loute					loute			
		Sc	outhbo	und			W	estbo	und				prthbo	und				astbo	und		
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Righl	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	38	46	0	0	84	23	8	7	0	38	9	7	11	0	27	4	56	20	0	80	229
07:15 AM	39	50	3	0	92	18	17	13	0	48	3	13	4	0	20	3	51	27	0	81	241
07:30 AM	42	76	3	0	121	30	22	7	0	59	11	13	14	0	38	4	63	12	0	79	297
07:45 AM	32	64	6	0	102	29	30	14	0	73	9	12	8	0	29	7	58	27	0	92	296
Total	151	236	12	0	399	100	77	41	0	218	32	45	37	0	114	18	228	86	0	332	1063
08:00 AM	38	54	3	0	95	31	30	8	0	69	7	25	13	0	45	5	67	27	0	99	308
08:15 AM	44	60	9	0	113	20	22	5	0	47	8	21	24	0	53	6	58	21	0	85	298
08:30 AM	31	48	4	0	83	23	31	15	0	69	13	23	20	0	56	4	62	14	0	80	288
08:45 AM	24	36	3	0	63	33	22	12	0	67	10	23	20	0	53	4	50	19	0	73	256
Total	137	198	19	0	354	107	105	40	0	252	38	92	77	0	207	19	237	81	0	337	1150
Grand Total	288	434	31	0	753	207	182	81	0	470	70	137	114	0	321	37	465	167	0	669	2213
Apprch %	38.2	57.6	4,1	0		44	38.7	17.2	0		21.8	42.7	35.5	0		5.5	69.5	25	0		
Total %	13	19.6	1.4	0	34	9.4	8.2	3.7	0	21.2	3.2	6.2	5.2	0	14.5	1.7	21	7.5	0	30.2	
Pass Vehicles		_																_			
% Pass Vehicles	99.3	98.8	93.5	0	98.8	95.2	93.4	97.5	0	94.9	80	89.8	92.1	0	88.5	94.6	98.1	96.4	0	97.5	96.1
Heavy Vehicles															_				_		
% Heavy Vehicles	0.7	0.2	3.2	0	0.5	3.4	5.5	1.2	0	3.8	2.9	7.3	5.3	0	5.6	2.7	1.3	1.8	0	1.5	2.3
School Bus	0	4	1	0	5	3	2	1	0	6	12	4	3	0	19	1	3	3	0	7	37
% School Bus	0	0.9	3.2	0	0.7	1.4	1.1	1.2	0	1.3	17.1	2.9	2.6	0	5.9	2.7	0.6	1.8	0	1	1.7

The Chazen Companies 547 River Street

547 River Street Troy, New York, 12180 www.chazencompanies.com

Project No: 31405.01 Counted By: S. Radloff Intersection: Route 300 and Route 32 Time: 7:00 - 9:00 AM File Name : TMC_Route 300&32_AM Peak Hour Site Code : 31405.01 Start Date : 2/5/2015 Page No : 2

		F	Route	32		Nort	h Plan	k Roa	id (Ro	ute 32)		R	oute 3	300			R	loute	300		
		Sc	uthbo	und			W	estbo	und	:		No	orthbo	und			E	astbo	und		
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Time	t	u	Right	RTOR	App. Total	t	u	Right	RIOR	App. Total	t	u	RigM	RIUR	App Total	t	u		, ion	~~	j
Peak Hour	Analys	sis Fro	m 07:	00 AN	1 to 08:	45 AN	1 - Pea	ak 1 o	f 1												
Peak Hour f	for En	tire Inf	tersec	tion B	egins a	t 07:3	0 AM														
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07:45 AM	32	64	6	0	102	29	30	14	0	73	9	12	8	0	29	7	58	27	0	92	296
08:00 AM	38	54	3	0	95	31	30	8	0	69	7	25	13	0	45	5	67	27	0	99	308
08:15 AM	44	60	9	0	113	20	22	5	0	47	8	21	24	0	53	6	58	21	0	85	298
Total Volume	156	254	21	0	431	110	104	34	0	248	35	71	59	0	165	22	246	87	0	355	1199
% App. Total	36.2	58.9	4.9	0		44.4	41.9	13.7	0		21.2	43	35.8	0		6.2	69.3	24.5	0		
PHF	.886	836	.583	.000	.890	.887	.867	.607	.000	.849	.7 9 5	.710	.615	.000	.778	.786	.918	.806	.000	.896	.973
Pass Vohicles																					
% Pass Vehicles	99.4	98.8	100	0	99.1	95.5	90.4	97.1	0	93.5	85.7	90.1	93.2	0	90.3	100	97.6	95.4	0	97.2	96.2
Heavy Vehicles			_											~	~ ~		~ ~	~ ~	•		
% Heavy Vehicles	0.6	0	0	0	0.2	3.6	7.7	0	0	4.8	2.9	7.0	5.1	0	5.5	0	2.0	2.3	0	2.0	2.4
School Bus	0	3	0	0	3	1	2	1	0	4	4	2	1	0	7	0	1	2	0	3	17
% School Bus	0	1.2	0	0	0.7	0.9	1.9	2.9	0	1.6	11.4	2.8	1.7	0	4.2	0	0.4	2.3	0	0.8	1.4



Traffic Impact Assessment Dunkin Donuts - Newburgh Town of Newburgh, NY

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Appendix B: Level of Service Analysis Results

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Volume (vph)	۳ 22	₽ 246	- 87	110	104	34	35	71	59	156	254	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100*		. 0	250		250	. 225		0	225		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)				25			25			. 25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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Satd. Flow (RTOR)		17			n de la co	86		42		N. States	5	
Link Speed (mph)		30			30		the lineary system and Mill 200 STAR (200	30	onemen ongeneries enertifikalit		30	
Link Distance (ft)		363			278		- A.,	183				
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Peak Hour, Factor	0.79	0.92	0.81	0.89 124	0,87 120	0.61 56	0.80 44	0.71 100	0.61 97	0,89 175	0.84 302	U. 06 36
Adj. Flow (vph)	28	267	107	124	120	00	44		91 Varite de la	175	302 (18) - 1	30
Shared Lane Traffic (%) Lane Group Flow (vph)	28	374	0	124	120	56	44	197	0	175	338	0
Enter Blocked Intersection	No -	No	No	No	No	No	No	No	No	No		No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12	1.11		12	1.12		12			12	
Link Offset(ft)		0		von over an vis i stati	0			0	ALCONOMIC AND A DESIGNATION		0	
Crosswalk Width(ft)		16	1.1		- 16 -	$\sim 1/2$	小月日日	116 -			16.	
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Permitted Phases	3			7		. 6	5			1	1	
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Total Lost Time (s)	6.0	6.0 +		6.0	6.0	6.0		6.0	t te	6.0		
Lead/Lag	Lag	Lead		Lag	Lead	Lead	Lag	Lead		Lag	Lead	910809330244444444
Lead-Lag Optimize?	Yes	Yes	N. 71 -	Yes	Yes	Yes	Yès	Yes		Yes	Yes.	
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Pedestrian Calls (#/hr)	0	0			0	0		0		0	00.0	ovent sex en
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Actuated g/C Ratio	0.39	0.26		0.39	0.26	0.45	0.39 0.11	0.26 0.41		0.39	0.26	
v/c Ratio Control Delay	0.05	0.78		. 0.35 28.9	0.24 34.7	0.07	0.11 20.5	29.9		23.9	46.0	
	10.4	-0.U		20.0	V-1.1		20.0	20.0		20.0		

The Chazen Companies E. Droz

Synchro 8 Report Page 1

2015 Existing Traffic Volumes (AM Peak Hour) NYS Route 32 and NYS Route 300

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Queue Delay	0,0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.4	49.6		28.9	34.7	1.7	20.5	29.9		23.9	46.0	20040200759
LOS!	В	D		C	0	Α.	- <u>C</u>			C	38.5	
Approach Delay		47.4 D			26.1	oosean oo		28.2	saraperis'			
Approach LOS Queue Length 50th (ft)	11 11	244		53	69	0	18	93	New West	77	221	
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Turn Bay Length (ft)	100		o ir s	250		250	225			225		
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Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
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	0.00	0.70		0.00	0.27	0.07	0.11	0.41		0.00		
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Natural Cycle: 90	lordia foldazioleta											
Control Type: Pretimed	-4 th ($\sim 0^{-1}$					
Maximum v/c Ratio: 0.78			NAMES AND ADDRESS OF ADDRESS AD					NTN NO. 1			5.7.4.5.Y.Y.Y.	A SHOCKING S
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Taper Length (ft)	25	4.000	nių į	25			25	Ne gen		25	a de altar	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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Satd Flow (RTOR)		17			20	86	1-11-1	41 30			5 30	
Link Speed (mph) Link Distance (ft)	u ga tangén	30 363			30 278			183			192	(9° e) e -
Travel Time (s)		8.3	A GARAN JA	AGRICAL SPEAK	6.3		98.100891A	4.2		li son son sen sen sen sen sen sen sen sen sen se	4.4	and a second
Peak Hour Factor	0.79	0.92	0.81	0.89	0.87	0.61	0.80	0.71	0.61	0.89	AN 12 TO LAND LA	0.58
Adj. Flow (vph)	37	278	111	128	124	57	48	104	100	182	314	40
Shared Lane Traffic (%)	07	200	0	128	124	57	48	204	0	182	354	0
Lane Group Flow (vph) Enter Blocked Intersection	37 No	389 No	0 No	No	No	No	40 No	204 No.1	No	No	No No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12	Sec.		12 1			12		Martin.	- 12	
Link Offset(ft)		0			0		d. Constraint	0			0	11.
Crosswalk Width (ft)		16			16	W. Let		16 1	di Seria di		5 (j . 16)	
Two way Left Turn Lane Headway Factor	1.00	1.00	1.00	1 00	1.00	-1.00	- 1.00	1:00	1.00	1.00	1.007	1,00
Turning Speed (mph)	15	1199.cz	9	15	34 315 A FIG. 19	9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	TO DOMESTIC OWNERS.	custom		NA .		pm+pt	NA	
Protected Phases	8	3		4	7	7	2	5		6	1	1000403
Permitted Phases	3 15.0	30.0		15.0	30.0	6 30.0		30.0		15.0	30.0	
Minimum Split (s) Total Split (s)	21.0	36.0	1	210	36.0	36.0	21:0	36.0		21.0	36.0	
Total Split (%)	18.4%	31.6%	1.92 A	18.4%	31.6%	31.6%	18.4%	31.6%		18.4%	31.6%	
Maximum Green (s)	15.0	30.0			30.0	30.0	15.0	30.0		15.0	30.0	
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0 1.0	11.0	5.0 1.0	5.0	3-17.1
All-Red Time (s) Lost Time Adjust (s)	1.0 0.0	1.0 0.0		1.0 0.0	1.0 0.0	- 1.0 0.0	1.0 0.0	0.0		0.0 0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0		(Margaret		6.0.1	
Lead/Lag	Lag	Lead		Lag	Lead	Lead	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes	
Walk Time (s)	5.0	5.0			5.0	5.0		5.0		5.0 11.0		
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Control Delay	18.6	52.0		30.7	34.9	1.7	21.1	30.7		24.4	47.8	

The Chazen Companies

Synchro 8 Report Page 1

E. Droz

2016 No-Build Traffic Volumes (AM Peak Hour) NYS Route 32 and NYS Route 300

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Peak Hour Factor	0.79	0,92,	0.81	0.89	0.87	0.61	0,80	0.711	0.61	0.89		0.58
Adj. Flow (vph)	49	278	111	128	124	74	48	117	100	217	375	47
Shared Lane Traffic (%) Lane Group Flow (vph)	49	389	0	128	124	74	48	217	0	217	422	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
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Link Offset(ft) Grosswalk Width(ft)		0		1	0			0 16		1.19.19	16	
Two way Left Turn Lane	6. <u>(</u> . 1	10	B. A.		10	- 12 A.L.	a she da ka sa					ine solder
Headway Factor	1.00	1.00.	1.00	1.00	1.00	· 1.00	1.00	1,00	1.00	1.00	1:00	1.00
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Maximum Green (\$) Yellow Time (s)	15.U 5.0	30.0 5.0	•	5.0 5.0	30.0 ×	30.0 5.0	15.0 5.0	5.0 5.0		15.0 5.0	5.0 5.0	
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Lead/Lag	Lag	Lead		Lag	Lead	Lead	Lag	Lead Yes		Lag Yés	Lead	15.00
Lead-Lag Optimize? Walk Time (s)	Yes 5.0	Yes 5.0		Yes	Yes 5.0	5.0	Yes	5.0	1000	5.0	185	
Flash Don't Walk (s)	11.0	11.0				11.0		11.0.				2302
Pedestrian Calls (#/hr)	0	0			0	0		0		0		g raise (\$454)48335.8833
Act Effct Green (s)	45.0	30,0		45.0		51.0		30.0	1. A. A.	45.0		
Actuated g/C Ratio	0.39	0.26 0.81		0.39	0.26	0.45	0.39 0.15	0.26 0.45	1999	0.39 0.45	0.26	
v/c Ratio Control Delay	0.09 18.9	52.0		30.7	0.25 34.9	3.3	23.6	32.3		26.9	59.3	
control boldy	10.0											

The Chazen Companies E. Droz Synchro 8 Report Page 1

2016 Build Traffic Volumes (AM Peak Hour) NYS Route 32 and NYS Route 300_____

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Stops (vph) Fuel Used(gal)	23	290	10 i	11	04	- 0	22	2	a second	20	6	
CO Emissions (g/hr)	27	440		97	102	10	25	118	63 X 21195	143	441	
NOx Emissions (g/hr)	5	. 86		19	20	2		23		28	86	2
VOC Emissions (g/hr)	6	102		22	24	2	6	27		33	102	
Dilemma Vehicles (#)	0	. 0		• 0	.0	. 0	.0	0		0	: 0.	
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HCM 95th %tile Q(veh)	0.1	- 0.0						

Traffic Impact Assessment Dunkin Donuts - Newburgh Town of Newburgh, NY

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Appendix C: Queues Analysis Results

2015 Existing Traffic Volumes (AM Peak Hour) NYS Route 32 and NYS Route 300

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Lane Group Flow (vph)	28	374	124	120	56	44	197	175	338		n managa pakulainin 10 (2015
v/c Ratio	0.05	0.78	0.35	0.24	0.07	0,11	0.41	0.35	0.70		Gole i
Control Delay	18.4	49.6	28.9	34.7	1.7	20.5	29.9	23.9	46.0	X young young approved on the second	a musicul contraction of the
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0,0	0.0	0.0		
Total Delay	18.4	49.6	28.9	34.7	1.7	20.5	29.9	23.9	46.0		
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Queue Length 95th (ft)	25	#384	90	116	0	35	117	123	298	teriteria de carcero como contro e to substant de una a	2003-2005-1205
nternal Link Dist (ft)	1, 2, 1	283		198			103		112		
Turn Bay Length (ft)	100		250		250	225		225			Service Alexand
Base Capacity (vph)	566	481	356	490	755	383	484	498	486		
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	an a	10002003700
Spillback Cap Reductn	0	0	. 0	0	. 0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		11111111111111
Reduced v/c Ratio	0.05	0.78	0.35	0.24	0.07	0.11	0.41	0.35	0.70		
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Lane Group Flow (vph)	37	389	128	124	57	48	204	182	354	
v/o Ratio	0.07	0.81	0.37	0,25	0.08	0.13	0,42	0.37	0.73	的影响在我们的影响。
Control Delay	18.6	52.0	30.7	34.9	1.7	21.1	30.7	24.4	47.8	
Queue Delay	0.0	0.0	0.0	.0.0	0.0	0.0	0.0	0.0 24.4	0.0 47.8	
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Queue Length 95th (ft)	30	#408	93	119	0	38	123	128	314	
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Turn Bay Length (ft)	100		250		250	225		225		nan in anticipi success, contras reactivaries reactivations
Base Capacity (vph)	562	481	344	490	755	371	484	492	485	计时间在子时 间
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Reduced V/c Ratio	0.07	0.81	0.37	0.25	0.08	F 0 13	0.42	0.37	0.73	
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incle second biointer.			100 100					<u>i i i i</u>		

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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Lane Group Flow (vph)	49	389	128	124	74	48	217	217	422	N. SIMURAR STREET IN STREET
v/c Ratio	0.09	0.81 52.0	0.37 30.7	0.25	0.10 3.3	0.15 23.6	0.45 32.3	0.45 26.9	0.87 59.3	
Queue Delay	0.0	0.0	INFORT METAX MINING ALCOMENTING	0.0	.0.0	0.0	0.0	0.0	0,0	
Total Delay	18.9	52.0	30.7	34.9	3.3	23.6	32.3	26.9	59.3	
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Internal Link Dist (ft)		283		198			103		112	
Turn Bay Length (ft)	100	104	250	100	250 755	225 319	483	225	485	
Base Capacity (vph) Starvation Cap Reductn	562 0	481 0	344 0	490 0	755 0	0	403 0	нот, 0	40 <i>0</i> 0	
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ntersectionsstatinatX # 95th percentile volume ex-	coede ca	nacity du	alle may	be longer	in au servi					

Queue shown is maximum after two cycles.

Engineering Report

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Dunkin Donuts - Newburgh

Traffic Impact Assessment

Town of Newburgh Orange County, New York

February 13, 2015

Chazen Project No: 31405.01



Proud to be Employee Owned Engineers Land Surveyors Planners Environmental Professionals Landscape Architects

Prepared for:

Liberty General Contracting 2629 Route 302 Middleton, NY 10941 ۱ <u>۱</u>

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APPENDICES

Appendix A: Traffic Count Volume Data Appendix B: Level of Service Analysis Results Appendix C: Queues Analysis Results ī.

EXECUTIVE SUMMARY

A Traffic Impact Assessment (TIA) has been completed for the proposed Dunkin Donuts project to be located at the intersection of NYS Routes 32 (North Plank Road) and NYS Route 300 the Town of Newburgh, Orange County New York. A 1,750± square foot building currently occupies the site, but is presently vacant. Access to the site will be restricted to the existing driveway on Route 32 north of the noted intersection.

This assessment follows accepted national engineering practice and utilizes accepted engineering data sources and software analysis programs. Field reviews were undertaken and manual vehicle turning counts were competed for the study intersections. The TIA methodology is detailed in Section 1.1 Assessment Methodology. All field data and analysis results are presented in the Appendices to this report.

The following intersections were reviewed and analyzed for 2015 Existing, 2016 No-Build, and 2016 Build conditions for the AM peak traffic condition, consistent with the peak hour of site trip generation and roadway traffic.

- NYS Route 32 at NYS Route 300
- NYS Route 32 at the site driveway

The results of this assessment clearly demonstrate that the traffic generated by proposed project can be safely and efficiently integrated into the local roadway system without any significant negative impact to the system.

1.0 INTRODUCTION

A Traffic Impact Assessment has been completed for the proposed Newburgh Dunkin Donuts project to be located at the intersection of NYS Routes 32 and NYS Route 300 in the Town of Newburgh, Orange County, New York.

The project site is located in the northwest quadrant of the NYS Route 32 and NYS Route 300 intersection. The project site consists of an unoccupied 1,750± square foot building to be razed and the exiting foundation utilized to construct a Dunkin Donuts shop. The proposed store will not have a drive-through window. Vehicular access and egress to/from the site will be provided by one driveway off of NYS Route 32. Section 3.0 presents a more detailed discussion of the proposed project.

This Assessment was completed to identify and quantify the traffic impacts associated with the proposed project and to identify any recommend mitigation for those impacts where appropriate. The Study follows accepted national engineering practice, and utilizes accepted engineering data sources and software analysis programs.

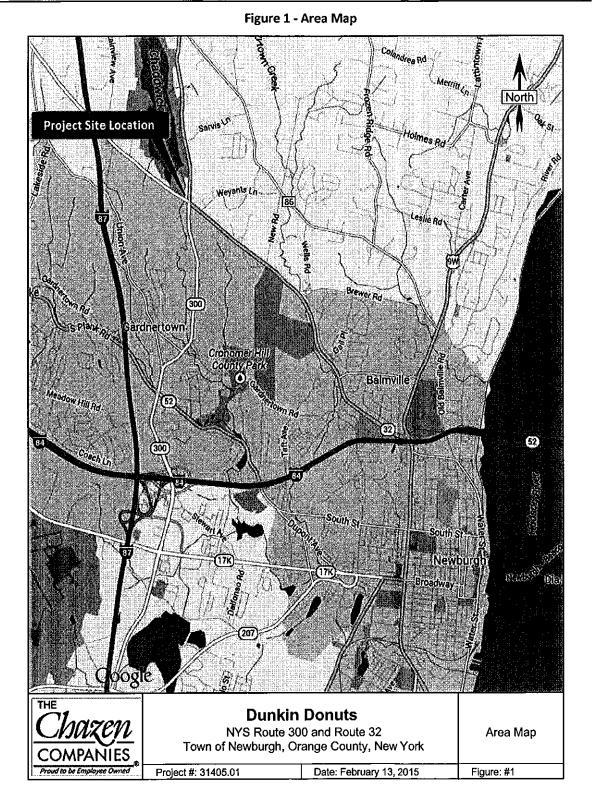
Figure 1 shows the project site location relative to the general geographic area. Figure 2 shows the project site location, study area limits and the roadway network immediately adjacent to the site including the intersections that would likely be affected by the trips generated by the proposed project.

Measurement of possible impact to traffic flow on the adjacent roadway network can be determined by reviewing the capacity and delay changes to the local intersections and access points within the roadway network that result from application of the site generated traffic. The New York State Department of Transportation generals considers impact to traffic as being defined by a drop in Level of Service or a significant increase in vehicle delay time.

The intersections deemed to be critical from a potential traffic impact perspective are the site driveway on NYS Route 32 and the intersection of NYS Route 32 with NYS Route 300.Traffic movement counts and site review was conducted on Thursday February 5, 2015. All field data and analysis results are presented in the Appendices to this report.

The operating conditions at the study intersection and the surrounding area were reviewed and analyzed, and recommendations were advanced to accommodate traffic activity associated with the project. It is anticipated that completion of the proposed development will occur in 2016; therefore 2016 is to be considered the build year for the proposed project.

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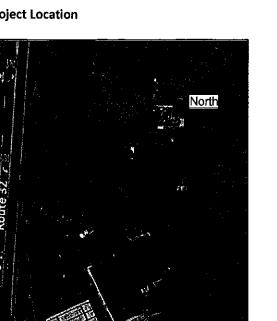
1.1 Assessment Methodology

This Assessment is based on the recommendations contained in the letter of March 17, 2014 from Creighton Manning Engineers to the Town of Newburgh Planning Board. The following is a brief description of the detailed tasks.

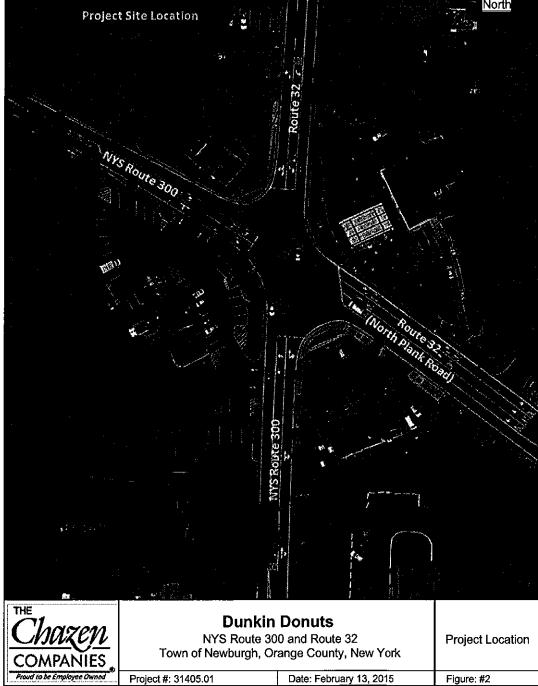
- Information pertinent to the existing traffic and roadway conditions was collected and analyzed relative to its effect on operating characteristics.
- Field observations were made in the AM commuter peak period to observe traffic movement, including vehicle queues, and pedestrian and bicycle movements within the existing roadway network to determine and verify traffic patterns and distributions.
- 2015 Existing traffic volumes were determined by conducting manual vehicular traffic counts at the critical intersections.
- A trip generation analysis and directional distribution analysis were conducted for the proposed land use component of the development.
- Operational analysis of the study intersections for the Existing, No Build, and Build conditions
 were conducted, as appropriate, for the peak hours of anticipated project operation to assist in
 the determination of possible improvements to the study intersections operation.
- A queue assessment was conducted based on both observed conditions and analysis.
- Conclusions and recommendations were made of the potential traffic improvements as a result of the data, facts gathered, and analyses in this study.

Throughout this study, distinction is made between the Existing traffic (i.e. traffic currently accommodated on the roadway network), No-Build traffic (i.e. traffic anticipated to exist on the system without the proposed project in the anticipated build year of 2016) and Build traffic (i.e. the combination of No-Build and site or project generated traffic volumes).

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2.0 EXISTING CONDITIONS

2.1 Roadways and Intersections

2.1.1 Roadways

The following provides a narrative and pictorial description of the roadways in the study area, including general condition, travel lanes, pavement markings, on-street parking, and heavy vehicle information where available. As shown in Figure 2 the proposed site is bounded by NYS Route 32, NYS Route 300 and adjoining properties. Site access will provided from/onto NYS Route 32 at the one existing driveway location north of the NYS Route 32/300 intersection.

NYS Route 32 is a two lane, New York State owned and operated roadway running west from NYS Route 9W and then heading north after its intersection with NYS Route 300. NYS Route 32 is characterized by residential and commercial development. NYS Route 32 is classified as an Urban Minor Arterial with a posted speed limit of 45 MPH, which increases to 55 mph shortly north of NYS Route 300 intersection. Latest NYSDOT data (2011) shows an AADT of 11,040 vehicles in the vicinity of the project. Parking is not designed along NYS Route 32 in the immediate study area and sidewalks are not provided.

NYS Route 300 is a two lane New York State owned and operated roadway running north from Interstate 84 and then heading west after its intersection with NYS Route 32. NYS Route 300 is characterized by residential and commercial development. NYS Route 300 is classified as an Urban Minor Arterial with a posted speed limit of 45 MPH before and after its intersection with NYS Route 32. NYSDOT data shows an estimated AADT of 6,380 vehicles in the vicinity of the project. Parking is not designed along NYS Route 300 in the immediate study area and sidewalks are not provided.

2.1.2 Intersections

The study intersections were analyzed relative to geometric and operating characteristics. These characteristics define the parameters used in the capacity analysis for each location.

NYS Route 32 with NYS Route 300 is a four way intersection under traffic signal control (NYSDOT signal O-34) with designated left turn lanes for all approaches, with each left turn lane in excess of 200' in length. In addition the NYS Route 300 westbound approach provides a designated right turn lane. The traffic signal operates as an eight phase actuated signal, providing signal phases to accommodate the various traffic movements, including permitted/exclusive left turn phasing for all approaches and an overlap arrow for the westbound right turn lane. There are no sidewalks and no marked pedestrian crosswalks

Commercial/retail facilities occupy the other three quadrants of the intersection, with the proposed Dunkin Donuts to be built in the northwest quadrant. The facilities, a gas station/mini-mart in the northeast quadrant, a deli in the southeast quadrant, and a restaurant/pizzeria in the southwest quadrant, each have access and egress to/from both NYS Route 32 and NYS Route 300 via channelized driveways.

Site Driveway with NYS Route 32 is an existing two-way driveway serving the project site. One lane for access and one lane for egress are provided. There are no traffic controls at this intersection. The center of the driveway is 110' from the traffic signal stop bar on the NYS Route 32 southbound approach.

2.2 Public Transportation

Public transportation is available throughout Orange County although it is more concentrated south of Interstate 84. Newburgh Area Transit provides bus service on NYS Route 32 south of the NYS Route 300 intersection into the City of Newburg via the Northside line. It also provides service Route 300 south of the NYS Route 32 intersection via the Crosstown line into the City of Newburgh. Other local and regional public transportation can then be accessed. Dial a Bus provides curb to curb service, via call up reservations made one week in advance, for all points within the Town of Newburgh.

2.3 Existing Traffic Volumes

Existing peak hour traffic volumes at the study intersection was documented via manual vehicular turning movement counts conducted on Thursday February 5th, 2015. The counts were conducted during the AM commuter peak, coinciding with the busiest time period for the proposed Dunkin Donuts shop as well as the local morning commuter peak. The peak hour volumes consist of the highest consecutive 60 minutes observed volumes at the study intersection.

Figure 3 summarizes the Existing traffic volumes for the study intersections for the AM peak hour as noted above. Traffic count and volume data is presented in Appendix A. Based upon the traffic count data collected the following observations are evident:

- 1. The AM peak hour was from 7:30 to 8:30 AM with 1194 vehicles traveling through the intersection.
- 2. The heaviest used approaches were NYS Route 32 from the north with 431 vehicles and NYS Route 300 from the west with 355 vehicles during the peak hour. This is consistent with an expected commuter pattern toward Newburgh, Interstate 84 and the NYS Thruway.

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3.0 PROJECT DISCUSSION

The proposed Newburgh Dunkin Donuts project site is located in the northwest quadrant of the intersection of NYS Routes 32 and NYS Route 300 intersection. Site access will be provided at one location, via the existing two way driveway on NYS Route 32 north of the NYS Route 32/300 intersection.

The project involves the demolition of the existing above ground structure, the retention of the current foundation and the construction of a Dunkin Donuts shop. The shop will not have a drive-through window and will have minimal seating.

The completed facility will be similar to the existing Dunkin Donuts shop in Ellenville, N.Y. Sales statistics from the Ellenville location show the busiest period of activity from 7:00 to 10:00 AM, coinciding with normal morning commuter traffic. Data from the Ellenville site showed 42 transactions during the 7:00 to 8:00 AM period and 51 transactions during the 8:00 to 9:00 AM period.

4.0 TRAFFIC FORECAST

4.1 2016 No-Build Traffic Conditions

The No-Build traffic volumes were generated by projecting the 2015 Existing traffic volumes to the build year of 2016 using an estimated growth rate factor based on previous traffic growth trends in the area. The *NYSDOT 2011 Traffic Volume Report* indicates that traffic volumes on NYS Routes 32 and NYS Route 300 in the project area have stayed constant in recent years. To account for any new growth, a growth rate of 2% per annum was applied to the 2015 existing traffic volumes to project the future traffic conditions in the year of 2016 without the proposed project. Since that time frame may encompass almost two years, the Existing volumes were increased by 4% to arrive at the 2016 No-Build volumes.

Figure 3 shows the projected 2016 vehicular volumes for the weekday AM period, referred to as the No-Build condition. These volumes are those anticipated in 2016 without the proposed Dunkin Donuts project.

This information is utilized as the foundation volumes in 2016 to which the anticipated generation of the proposed project is added to predict the combined, or Build volumes anticipated in 2016.

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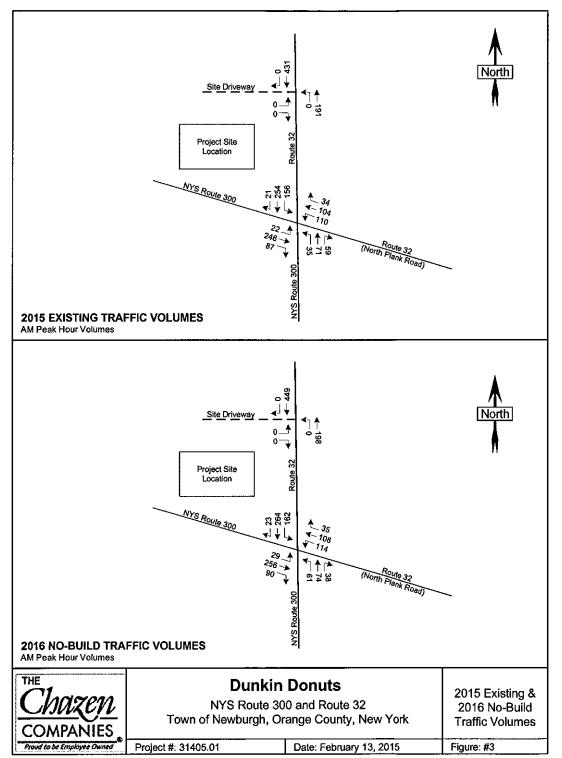


Figure 3 - 2015 Existing and 2016 No-Build Traffic Volumes

4.2 Trip Generation Analysis

The trip generation analysis for the proposed project provides the anticipated traffic impact that can be expected as a result of that development. The Institute of Transportation Engineers (ITE) provides traffic and transportation professionals with a source document as a guide to trip generation rates for all land uses and building types. This document, Trip Generation Manual¹, 9th Edition, is updated periodically and details rates developed for the average weekday during the peak hours of the generator and during the peak hours of the adjacent roadway traffic.

The above noted resource provides trip generation data for Land Use 936: Coffee/Donut Shop without Drive-Through Window. This Land Use was utilized to establish the anticipated trips generated by the proposed project. In addition, transaction data from a similar Dunking Donuts in Ellenville NY, located on Route 209 (North Main Street) north of the village center, was reviewed. The Ellenville store transaction data is significantly below that provided by the ITE trip rate.

ITE does not provide data on pass-by trips for Land Use 936: Coffee/Donut Shop without Drive-Through Window. A pass-by trip is a trip that is already on the local roadway network and makes a stop at the subject land use. This stop is not the primary reason for the trip but is a secondary destination. A pass-by trip is analyzed at the site driveway but is not added to the overall traffic on the study roadways as it is already there.

The peak hours of a Dunkin Donut shop are the morning commute hours. Accordingly, it is apparent that many site trips are made by those already on the local roadways on their way to work. These trips to the site would be pass-by trips. A pass-by rate of 50% has been assumed to apply for this assessment. In reality this pass-by rate of 50% may be conservative.

Table 1 presents the forecasted vehicular trip generation values for the proposed project.

ITE Land Use #936: Coffee/Donut Shop without Drive- through window (1750 SF)	a part of the second	Peak Hour Volumes Weekday AM				
ITE Trip rate 108 38 trips per 1000 SF Gross Floor Space	Enter (51%)	Exit (49%)	Total			
New Trips Generated at the Site Driveway	97	93	190			
Pass-by Trips at 50% Rate	48	46	94			
Trips added to the local system.	49	47	96			

Table 1 - Project Trip Generation

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¹*Trip Generation Manual,* 9th *Edition*, Institute of Transportation Engineers, 2012.

Page 12

As per the above, 190 trips (97 in and 93 out) will use the Dunkin Donuts driveway, with 94 trips (48 in and 46 out) already on the local roadways, and 96 trips (49 in and 47 out) being new trips generated by the new Dunkin Donuts.

The ITE trip figures indicate activity significantly greater than the number of transactions recorded at the Ellenville location. The Ellenville figures show the highest hour of transaction was between 8:00 and 9:00 AM with 51 transactions taking place, indicating at most 51 trips. Based on the ITE trip rates it would be expected that a minimum of 97 transactions would take place during the peak morning hour. To study a worse-case scenario the trip rates as per ITE will be utilized. However it is anticipated that the actual number of trips may be less due to the location of the site and the fact that access/egress will be provided only to/from NYS Route 32 north of the NYS Route 300 intersection.

4.3 Trip Distribution

The distribution of vehicular traffic describes where traffic originates or where traffic is destined. The trip distribution of the site generated vehicular traffic is based upon the land-uses being proposed and the marketing demographics based upon regional considerations. If the land-use being proposed is consistent with existing activity then the new traffic flows would approximate the distribution of the existing volumes at the locations monitored during the manual counts. Although the land use being considered serves the morning commuter flow, traffic to the proposed Dunkin Donuts is anticipated to arrive mainly from the north on NYS Route 32 due to the site driveway located on NYS Route 32. It is anticipated that significant trips to the site will not come from traffic on the other the three approaches due to travel routes, including left turns into the site that would have to be followed.

The distribution of trips also takes into consideration pass-by trips which are significant for a coffee shop such as proposed. Pass-by trips must be removed from their normal path, moved to a secondary path and distributed to the site driveway, and then placed back on a travel path to get back to their primary travel route.

The percentages of site generated traffic assigned to the study intersections are shown in Figure 4. These percentages are based on the discussion above and show 70% of site trips originating from the north.

4.4 Trip Assignment

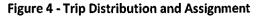
Trip assignment combines the results of the trip generation and trip distribution and determines the number of trips utilizing specific paths and roadways between various origin/destination pairs. As with the trip distribution, the assignment of trips takes pass-by traffic into consideration. The trip assignment for the proposed development is shown in Figure 4.

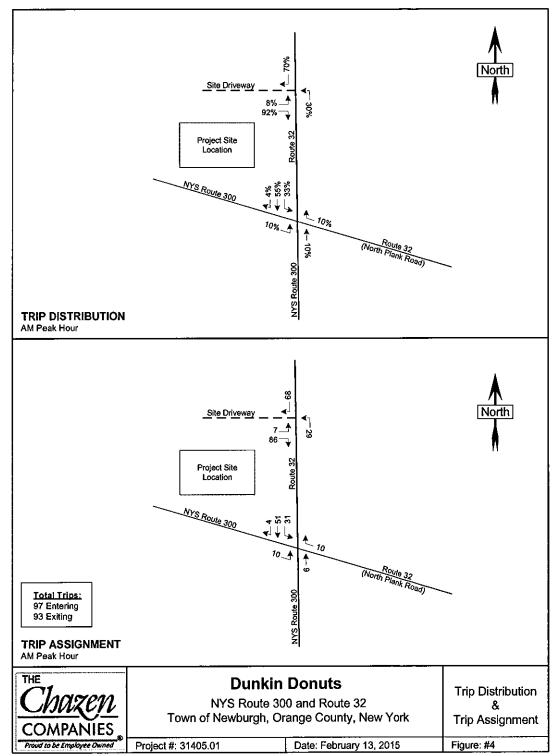
4.5 2017 Build Volumes

To estimate the 2016 Build traffic volumes, the results of the site generated trip assignment were added to the 2016 No-Build traffic volumes. These traffic volumes represent the future traffic conditions after full build-out of the proposed project and are presented in Figure 5.

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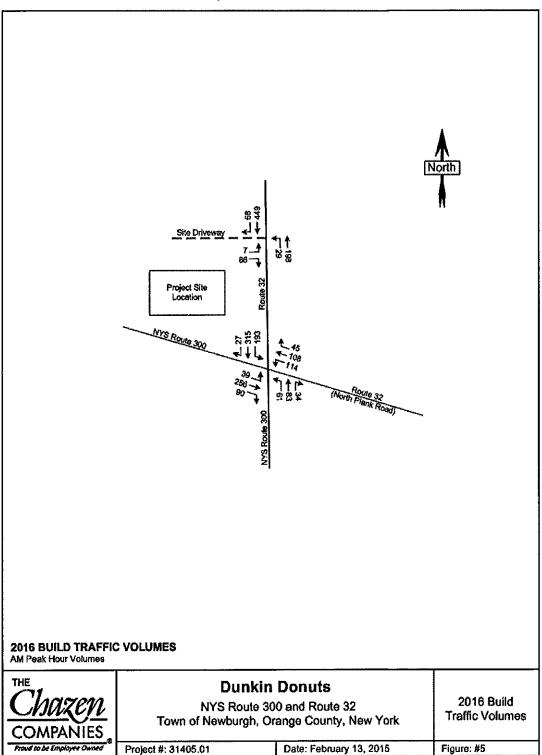




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5.0 ANALYSIS

5.1 Capacity/Level of Service Methodology

A level of service analysis was conducted for the morning peak hour. As the project site building is currently vacant and not generating trips to the local roadway network, an operation analysis was not conducted for the 2015 Existing condition or the 2016 No Build condition.

The capacity analysis methodology is based upon the <u>2010 Highway Capacity Manual</u> which utilizes "levels-of-service" (LOS) designations to identify traffic flow based on vehicle delay. A LOS A represents the best condition and a LOS F represents the worst condition. A LOS C is generally used as a design standard while a LOS D is acceptable during peak periods. LOS E represents an operation at or near capacity.

In order to identify a signalized intersection's level-of-service, the average amount of vehicle delay is computed for all traffic movements. Based on the vehicle delays computed levels of service are determined for each movement, each intersection approach and each approach.

To identify an un-signalized intersection's level-of-service, the average amount of vehicle delay is computed for the critical traffic movements. These are defined as the left turn into the minor road from the major road, and all movements from the minor road. Based on the vehicle delays computed levels of service are determined for the critical intersection movements.

Tables 2 and 3 summarize the level-of-service criteria for signalized and un-signalized intersections.

Level of Service (LOS)	Control Delay Per Vehicle (seconds)
А	Less than or equal to 10
В	Greater than 10 and less than or equal to 20
С	Greater than 20 and less than or equal to 35
D	Greater than 35 and less than or equal to 55
E	Greater than 55 and less than or equal to 80
F	Greater than 80

Table 2 - Signalized Intersection LOS Criteria

Table 3 - Un-Signalized Intersection LOS Criteria

intervice (LOS)	Control Delay Par Vehicle (seconds)
А	Less than or equal to 10
В	Greater than 10 and less than or equal to 15
С	Greater than 15 and less than or equal to 25
D	Greater than 25 and less than or equal to 35
Е	Greater than 35 and less than or equal to 50
F	Greater than 50

The NYS Route 32 at NYS Route 300 intersection was analyzed during the weekday AM peak hour period for the Existing (2015), No-Build (2016), and Build (2016) conditions. The site driveway intersection with NYS Route 32 was analyzed for the 2016 Build condition as this driveway generates no traffic at the present time. The capacity analyses were undertaken with the use of the latest version of Synchro software by McTrans². The procedure is based on the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. The average amount of vehicle delay is computed for each critical movement to the intersection.

The results of the capacity analyses for the study intersection is summarized in Table 3 and described after the table. The analysis output is provided in Appendix B.

Intersections	的目的	2015 Existing Traffic Volumes AM Peak	2016 No-Build	2016 Build Traffic Volumes AM Peak
NYS Route 32/NYS Route 300 (Signaliz	ed)			
NYS Route 300 EB	LTR	D (47.4)	D (49.1)	D (48.3)
NYS Route 32 WB	LTR	C (26.1)	C (27.1)	C (26.1)
NYS Route 300 NB	LTR	C (28.2)	C (28.8)	C (30.7)
NYS Route 32 SB	LTR	D (38.5)	D (39.9)	D (48.3)
0	verall	D (36.7)	D (38.0)	D (41.2)
NYS Route32/Site Driveway (Unsignal	ized)			
NYS Route 32 NB	L			A (8.7)
Site Driveway EB	LR			B (11.4)

Table 4 - Level of Service Summary

Level of Service/Estimated Delay (Seconds per Vehicle)/ Volume to Capacity Ratio (v/c)

Key: X (Y.Y) = Level of Service/Estimate Delay (Seconds per Vehicle

NB, SB, WB, EB = Northbound, Southbound, Westbound, Eastbound intersection approaches

L, T, R = Left-turn, through, and/or right-turn movements.

As indicated in Table 4, the results of the analysis for the study intersections show that the level of service at the NYS Route 32/300 intersection is maintained at LOS "D" from the existing condition through the No-Build and Build conditions with only an increase in vehicle delay of 4.5 seconds in the Build condition. LOS "D" is considered acceptable at urban intersections as long as no approach operates at LOS "E" or worse.

The proposed Dunkin Donuts driveway operates at LOS "B" during the Build condition with the left turn from NYS Route 32 into the site operating at LOS "A".

Based on the analysis of the site driveway under the Build condition, it is not anticipated that any turn restrictions will be required.

² Synchro 8 Software

5.2 Queue Assessment

A field review of the vehicle queues on the NYS Route 32 southbound approach was conducted. This approach carries the heaviest traffic during the AM commuter period and also is the location of the site driveway. Excessive queues up to and past the site driveway may be problematic for vehicles wishing to make a left turn into the site, and vehicles exiting the site. The site driveway is 110 feet from the stop bar at the signalized intersection.

During the manual traffic counts, it was observed that southbound traffic on NYS Route 32 did queue past the site driveway. Queues consistently cleared during the traffic signal green time provided.

The operational analysis of the driveway, with anticipated site traffic added, showed anticipated queue lengths significantly greater than that observed in the field, as presented below.

- 1. The Existing 50% queue length to be 74 feet for the southbound left turn lane and 191 feet for the southbound through lane. Queues will be less than these lengths 50% of the time.
- 2. The Existing 95% queue length to be 122 feet for the southbound left turn lane and 286 feet for the southbound through lane. Queues will be less than these lengths 95% of the time.

In the Build condition, the NYS Route 32 queue will increase as would be expected with additional volumes.

- 1. The Build 50% queue length computes to 98 feet for the southbound left turn lane and in excess of 293 feet for the southbound through lane. Queues will be less than these lengths 50% of the time.
- 2. The Build 95% queue length to be 151 feet for the southbound left turn lane and 412 feet for the southbound through lane. Queues will be less than these lengths 95% of the time.

The queue analysis results are presented in Appendix C.

The above discussion pertains to the one hour of greatest site activity and of high commuter traffic volumes. While the PM peak would likely produce slightly higher traffic volumes on NYS Route 32, the proposed land use generated trips are only 50% of the AM trips analyzed in this assessment. At other times during the day both overall traffic volumes and site generated trips will be substantially less. Accordingly queues of NYS Route 32 southbound approach would not be considered to be problematic except during the AM peak hour.

The difference in observed and calculated queues can be placed on several factors, including the winter season during which the field observations were made, and driver behavior.

Traffic turning into or leaving a commercial facility is often in conflict with queued traffic on the roadway, especially near a signalized intersection in urban areas. Drivers routinely wait for queues to

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clear prior to making their respective turns, make a right turn while a vehicles turns into the driveway, or are allowed to exit through the courtesy of drivers on the main roadway. The significant movements at the driveway are rights in and rights out. This situation will allow for vehicles to exit the driveway and head south while vehicles are turning right into the driveway, as well as when the NYS Route 32 queue clears.

Accordingly based on field observations, operation analysis, and knowledge of normal driving conditions and driver behavior, it is not anticipated that the southbound NYS Route 32 traffic queues will be a significant detriment to access and egress to/from the proposed Dunkin Donuts.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This Traffic Impact Assessment has analyzed the impact of traffic forecasted to be generated by the proposed Dunkin Donuts project in relation to the existing and future traffic conditions of the adjacent roadway network. The following findings are the result of this analysis and are meant to provide an informed basis for the local decision making process.

6.1 Conclusions

The local roadways and intersections serving the proposed project site provide good access to the immediate area and statewide locations. Based on the reviews and analysis conducted, traffic generated by the proposed project, would be safely and efficiently served by the existing local roadway network, and would not have any negative impact on the local roadway the network.

Based on the analysis undertaken, vehicles entering and exiting the site driveway will be able to proceed in a safe and efficient manner without the need for turn restrictions.

6.2 Recommendations

Based on this assessment and the analysis contained therein, the following recommendations are presented.

1. To facilitate safety egress from the site driveway it is recommended that a stop sign be installed, along with a marked stop bar and centerline to differentiate driveway directional flow. State law mandates that traffic, in the absence of a traffic control device, must stop while entering a state highway. However since this site is now vacant and is close to a signalized intersection, a stop sign with associated pavement markings would help facilitate safe egress from the site. Traffic Impact Assessment Dunkin Donuts - Newburgh Town of Newburgh, NY

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Appendix A: Traffic Count Volume Data

The Chazen Companies February 13, 2015

The Chazen Companies 547 River Street

547 River Street Troy, New York, 12180 www.chazencompanies.com

Project No: 31405.01 Counted By: S. Radloff Intersection: Route 300 and Route 32 Time: 7:00 - 9:00 AM File Name : TMC_Route 300&32_AM Peak Hour Site Code : 31405.01 Start Date : 2/5/2015 Page No : 1

					G	roups	Printe	ed- Pa	iss Ve	hicles -	Heav	y Veh	icles -	Scho	ol Bus						
		I	Route	32		Nort	h Plan	k Roa	id (Ro	ute 32)		F	loute	300			R	loute :	300		i
		Sc	outhbo	ound			W	estbo	und			N	orthbo	und			E	astbo	und		í
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App Total	Ini. Total
07:00 AM	38	46	0	0	84	23	8	7	0	38	9	7	11	0	27	4	56	20	0	80	229
07:15 AM	39	50	3	0	92	18	17	13	0	48	3	13	4	0	20	3	51	27	0	81	241
07:30 AM	42	76	3	0	121	30	22	7	0	59	11	13	14	0	38	4	63	12	0	79	297
07:45 AM	32	64	6	0	102	29	30	14	0	73	9	12	8	0	29	7	58	27	0	92	296
Total	151	236	12	0	399	100	77	41	0	218	32	45	37	0	114	18	228	86	0	332	1063
08:00 AM	38	54	3	0	95	31	30	8	0	69	7	25	13	0	45	5	67	27	0	99	308
08:15 AM	44	60	9	0	113	20	22	5	0	47	8	21	24	0	53	6	58	21	0	85	298
08:30 AM	31	48	4	0	83	23	31	15	0	69	13	23	20	0	56	4	62	14	0	80	288
08:45 AM	24	36	3	0	63	33	22	12	0	67	10	23	20	0	53	4	50	19	0	73	256
Total	137	198	19	0	354	107	105	40	0	252	38	92	77	0	207	19	237	81	0	337	1150
Grand Total	288	434	31	0	753	207	182	81	0	470	70	137	114	0	321	37	465	167	0	669	2213
Apprch %	38.2	57.6	4.1	0		44	38.7	17.2	0		21.8	42.7	35.5	0		5.5	69.5	25	0		
Total %	13	19.6	1.4	0	34	9.4	8.2	3.7	0	21.2	3.2	6.2	5.2	0	14.5	1.7	21	7.5	0	30.2	L
Pass Vahides																					
% Pass Vehicles	99.3	98.8	93.5	0	98.8	95.2	93.4	97.5	0	94.9	80	89.8	92.1	0	88.5	94.6	98.1	96.4	0	97.5	96.1
Heavy Vehicles									<u>^</u>	~ ~		~ ~	<i>.</i>	•	E 0	07	4.0	4.0	~	4 5	
% Heavy Vehicles	0.7	0.2	3.2		0.5	3.4	5.5	1.2	0	3.8	2.9	7.3	5.3	0	5.6	2.7	1.3	1.8	0	1.5	2.3
School Bus	0	4	1	0	5	3	2	1	0	6	12	4	3	0	19	1	3	3	0	7	37
% School Bus	0	0.9	3.2	0	0.7	1.4	1.1	1.2	0	1.3	17.1	2.9	2.6	0	5.9	2.7	0.6	1.8	0	1	1.7

The Chazen Companies 547 River Street

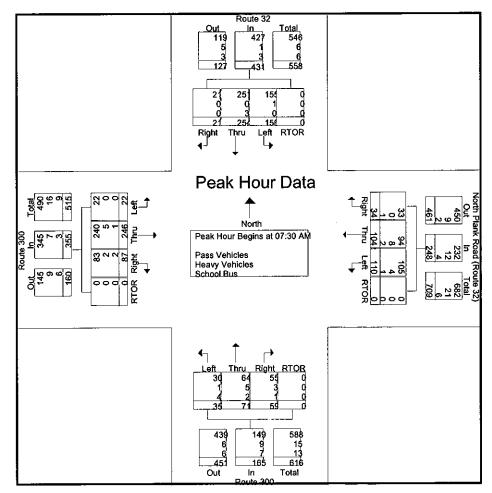
547 River Street Troy, New York, 12180 www.chazencompanies.com

Project No: 31405.01 Counted By: S. Radloff Intersection: Route 300 and Route 32 Time: 7:00 - 9:00 AM

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File Name : TMC_Route 300&32_AM Peak Hour Site Code : 31405.01 Start Date : 2/5/2015 Page No : 2

		F	Route	32		Nort	h Plar	k Roa	id (Ro	ute 32)		R	oute	300			R	loute	300		ĺ
		So	uthbo	und			W	'estbo	und			No	orthbo	und			E	astbo	und		
Start Time	Lef t	Thr u	Right	RTOR	App. Total	Lef t	Thr u	Right	RTOR	App. Total	Lef t	Thr U	Right	RTOR	App. Totar	Lef t	Thr u	Right	RTOR	App. Total	int. Totai
Peak Hour	Analys	sis Fro	m 07:	00 AN	1 to 08:	45 AN	1 - Pea	ak 1 o	f 1												
Peak Hour f	for En	tire Int	ersec	tion B	egins a	t 07:3	0 AM														
07:30 AM	42	76	3	0	121	30	22	7	0	59	11	13	14	0	38	4	63	12	0	79	297
07:45 AM	32	64	6	0	102	29	30	14	0	73	9	12	8	0	29	7	58	27	0	92	296
08:00 AM	38	54	3	0	95	31	30	8	0	69	7	25	13	0	45	5	67	27	0	99	308
08:15 AM	44	60	9	0	113	20	22	5	0	47	8	21	24	0	53	6	58	21	0	85	298
Total Volume	156	254	21	0	431	110	104	34	0	248	35	71	59	0	165	22	246	87	0	355	1199
% App. Total	36.2	58.9	4.9	0		44.4	41.9	13.7	0		21.2	43	35.8	0		6.2	69.3	24.5	0		L
PHF	.886	.836	.583	.000	.890	.887	.867	.607	.000	.849	.795	.710	.615	.000	.778	.786	.918	.806	.000	.896	.973
Pass Vehicles														_							
% Pass Vehicles	99.4	98.8	100	0	99.1	95.5	90.4	97.1	0	93.5	85.7	90.1	93.2	0	90.3	100	97.6	95.4	0	97.2	96.2
Heavy Vehicles		•	^	•	~ ~			•	•	4.0		7.0		•		0	2.0	2.3	0	2.0	2.4
% Heavy Vehicles	0.6	0	0	0	0.2	3.6	7.7	0	0	4.8	2.9	7.0	5.1	0	5.5		2.0		-		
School Bus	0	3	0	Q	3	1	2	1	0	4	4	2	1	0	7	0	1	2	0	3	17
% School Bus	0	1.2	0	0	0.7	0.9	1.9	2.9	0	1.6	11.4	2.8	1.7	0	4.2	0	0.4	2.3	0	0.8	1.4



Traffic Impact Assessment Dunkin Donuts - Newburgh Town of Newburgh, NY

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Appendix B: Level of Service Analysis Results

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	(r/#)	िकरने का दि अन्त संसद्ध के न			111 T							
Lane Configurations	L.	4	indub ^{an} .	<u>क विक</u> र्षन	••••••••••••••••••••••••••••••••••••••	7	<u>1</u>	f)			ĥ	12.2.1226-0023
Volume (vph)	22	246	87	110	↑ 104	34	35	71	59	156	254	-21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	9 D C	. 0.	250		250	225		0	225		.0
Storage Lanes	1		0	1		1	1		0	1	17 (No.1 N	0
Taper Length (ft)	. 25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
it is a second second		0.957	e de sons	0.050	the description	0.850	0.050	0.926		0.050	0.984	
Fit Protected	0.950	4700		0.950	4000	1583	0.950	4706	D	0.950 1770	1833	0
Satd Flow (prot)	0.680	1783	V.	0.251	1000	1000	0.308	1/20	V.	0.543	1000	, U
Flt Permitted Satd. Flow (perm)	1267	-1783	0-	A SHARE SHOW AN ADDRESS OF	1863	1583	574	1725	0	1011	1833	Ő .
Right Turn on Red	THE LEVIS	11.00	Yes			Yes	·····		Yes	1997 I 2 50		Yes
Satd/Flow (RTOR)		17				86		42			. 5	
Link Speed (mph)		30			30			30			30	1973 2000 1999 1997 199 6 1
Link Distance (ft)	a far star	363		41.40	278	1201		183-			192	
Travel Time (s)		8.3			6.3			4.2			4.4	
Peak Hour Factor	0.79	0.92	0.81	0.89	0.87	0,61	0.80	0.71	0.61	0.89	0.84	0,58
Adj. Flow (vph)	28	267	107	124	120	56	44	100	97	175	302	36
Shared Lane Traffic (%)						50	a starter a	407		475	000	
Lane Group Flow (vph)	28	374	0	124	120 No	56 No	44 Nia	197 No	0 No	175 No	338 No	0
Enter Blocked Intersection	No Left	No Left	No	No Left	NO Left	Right	Left	Left	Right	Left	Left	No Right
Lane Alignment Median Width(ft)	Leil	12	Right		12	Night	Leit	-12	Nyn	LGI	12	Tight
Link Offset(ft)		0			0	NG 12972-1		0			0	Series Statistics
Crosswalk Width(ft)	1. 19 1 4.4	. 16		elemente pr	16			16		104.212	16	
Two way Left Turn Lane		n an ann an Anna an An	*									NY WEIGHT COLUMN
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1,00	1.00	1.00	1,00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
TumType	pm+pt	NA	t thinks	pm+pt	30950262020202036-6555.58P	n Californi Californi Pi	pm+pt	NA		pm+pt	NA NA	
Protected Phases	8	3		4	7	7	2	5		6	1	
Permitted Phases	3	1.		7		6	5	3. 4. 2.4	Section 2	1.	20.0	
Minimum Split (s)	15.0 21.0	30.0 36.0		15.0 121.0	30.0 36.0	30.0 36.0	15.0 21.0	30.0 36.0		15.0 21.0	30.0 36.0	1. N. V.
Total Split (s) 4 Total Split (%)	18,4%	31.6%		18.4%	31.6%	31.6%	18.4%	31.6%		18.4%	31.6%	
Maximum Green (s)	10.4 /0	31.076		15.0		30.0	15.0		1.4	10.470	30 0.	
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	2.8 9 10 10 2
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0		Selfer A		1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6,0		6.0	6.0	6.0	6.0	6.0		6,0		
Lead/Lag	Lag	Lead		Lag	Lead	Lead	Lag	Lead		Lag	Lead	HE BRIDE STATISTICS
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	$(h_{i}) \in \mathbb{R}^{n}$	Yes	Yes	
Walk Time (s)	5.0	5.0			5.0	5.0	2.2	5.0		5.0	o en	
Flash Dont Walk (s)	11.0	.11.0			+11.0 -	\$14,000,000 (00 (N.S.C.S. N. A.M. A.M. 194		11.0	de alle	11,0	14 . H. A.	
Pedestrian Calls (#/hr) Act Effct Green (s)	0 45.0	0 30,0	849.90 9 6	45.0	0 30.0	0 51.0	15.0	0 30.0	1.5	0 45.0	30.0-	
Actuated g/C Ratio	45.0 0.39	0.26		45.0	0.26	0.45	45.0 0.39	0.26		45.0 0.39	0.26	
v/c Ratio	0.05	0.20		0.35	0.20		0.33	0.41		0.35		
Control Delay	18.4	49.6		28.9	34.7	1.7	20.5	29.9	ut na nga sina	23.9	46.0	an a
Control Bollay					÷							

The Chazen Companies E. Droz

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and Greue	* (*) * (*)			- MB			\$]\$		() (#) #)			S.P.
Queue Delay	0.0	0.0		0.0	0.0	0.0	0,0	0.0	17. A.	0,0	0.0	
Total Delay	18.4	49.6		28.9	34.7	1.7	20.5	29.9		23.9	46.0	un: Vorins del Marini di
LOS	B	,D		C	C	A ·	C ×	C		• C	D	
Approach Delay	n an he s	47.4			26.1		107-10-10-10-20-20	28.2	an eo taul	aconstant.	38.5	e nateri
Approach LOS	44	D		50	69	0 0	40	93		77	221	
Queue Length 50th (ft)	11 050	244 #384	and the second	53 90	116	U • 0	18 35	93 117	dina di s	123	221	Sec. 2
Queue Length 95th (ft) Internal Link Dist (ft)	20	283	18 Mar 19	90	198	V.	- 00 -	103		123	112	
Tum Bay Length (ft)	100	200	1999 - S.S.	250	100	250	225	100	5 et 1.	225		
Base Capacity (vph)	566	481		356	490	755	383	484		498	486	
Starvation Cap Reductn	0	• 0		0	0	. 0	0	. 0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	100 M 10 10 100 100 100 100
Storage Cap Reductn	0	- 0	49.05 T	0	0	0	0	0		0.		é i de
Reduced v/c Ratio	0.05	0.78		0.35	0.24	0.07	0.11	0.41		0.35	0.70	
alberglight Statute (Statute (e it i je na starovnost	ی داری محکوم در وسال	ta di second				Sec. est.	na ya nayana Natu na na	dentes :		
Area Type: O	ther											
Cycle Length: 114							· ·					14 A 4
Actuated Cycle Length: 114							4000 N.S.1		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	31.5.5 Sec. (570 S.	
Offset: 72 (63%), Referenced	to phase	2:NBL and	16:SBL, S	start of G	ireen		1. 64					
Natural Cycle: 90 Control Type: Pretimed					e de la composition		11. A.	199 (P. 19	0.00 Je 14			- U
Maximum v/c Ratio: 0.78	24 MP 23	10000 CX				NoRTH AREAS						
Intersection Signal Delay: 36.	7	Share Pair		- Collet	ersection	LOSED			in a star		- 010-	15. A.
Intersection Capacity Utilization						f Service	В					
Analysis Period (min) 15					÷ ¥		2.1.54					
# 95th percentile volume ex	ceeds ca		ue may b	e longer		1.200.000.00 (A.1.100)(()				-		
Queue shown is maximum	after two	cycles.	-bel _{ie} v					a stadio de ser	199 mg			
Calife and Disease 20												

Splits and Phases:	3:
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36 8	21 S	36 s	21.5
1 ø5	ø6 (R)	\$ \$7	≠ \$8
36 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	21 s of the second	36 s	21s

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				MBE		i a a a a a a a a a a a a a a a a a a a	N.				(4) 9 5 1 (5 8)	a (a) a 2 (a) (a)
Lane Configurations	۲	Ą		ኘ	Ł	7	ኘ	ţ,		ኻ	Ъ	
Volume (vph)	29	256	. 90	114	108	35	38	74	61	162	264	23
Ideal Flow (vphpl)	1900 100	1900	1900 0	1900 250	1900	1900 250	1900 225	1900	1900 0	1900 225	1900	1900
Storage Length (ft) Storage Lanes		A Shirth	U 0	20U 1	ileninatieni	250 1	220		0	225		0
Taper Length (ft)	25			25		ha Kizanali	25	a casa te		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt 🦛 🖉 👘		0.957				0.850		0.926			0.983	
Fit Protected	0.950			0.950 1770	4000	4000	0.950	4705	- n	0.950	1024	0
Satd Flow (prot)	1770 0.673	1/83 -	. U.	0.228	1863	1583	0.283	1725	. U .	0.530	1001	U .
Satd. Flow (perm)	1254	1783	S- 0	425	1863	1583	527	1725	0		. 1831	· Ó
Right Turn on Red	28.9 H T I A		Yes	· · · · · · · · · · · · · · · · · · ·		Yes			Yes	and a fail and a fail of a second set		Yes
Satd Flow (RTOR)		17				86		41			5	a factors
Link Speed (mph)		30			30	a start and a start of the		30			30	
Link Distance (ft) Travel Time (s)		8.3	0.0000000	an a	278 6.3			4.2	and the second	in Auric	192 ° 4.4	
Peak Hour Factor	0.79	0.92	0.81	0.89	0.3	0.61	0.80 -	0.71	0.61	0.89		0.58
Adj. Flow (vph)	37	278	111	128	124	57	48	104	100	182	314	40
Shared Lane Traffic (%)									201			al di se
Lane Group Flow (vph)	37	389	0	128	124	57	48	204	0	182	354	0
Enter Blocked Intersection	No Left	No Left	No Right	No Left	No Left	No Right	No Left	No Left	No Right	No Left	No Left	No Right
Lane Alignment Median Width(ft)	Leit	12	Night		12	Night	Leit	12	Ngn	Leit	12	- Nyin
Link Offset(ft)	12 Carl 1, 19 (9).	0			0		A BLICHTON A	0			0	
Grosswalk Width(ft)	o reali	16			16			16	$F_{AC}(0)$		16	
Two way Left Turn Lane		1 4 4		100			4 60	100	2.00		4/00	1 00
Headway Factor	1.00 15	00.T.0U ↔	0.1.00,1 9	1.00 15	- 1.00	- 1.00 9	1.00 15	1.00	1.00 ± 9	1.00× 15	. 1.00	1.00
Turning Speed (mph) TurniType	i pm+pt	NA	3	pm+pt	NA		om+ot	NA		pm+pt.	NA	
Protected Phases	8	3	********	4	7	7	2	5		6	1	NEAR DEFORMATION OF
Permitted Phases	3					6	- 5			-1.1		
Minimum Split (s)	15.0	30.0		15.0	30.0	30.0	15.0	30.0 36.0	Sec. 129-24	15.0 21.0	30.0 36.0	
Total Split (s) Enclosed and and Total Split (%)	21.0 18.4%	36.0 31.6%		21.0 18.4%	36.0 31.6%	<u>36.0</u> 31.6%	21.0 18.4%	31.6%	(spectrum)	18.4%	31.6%	(5 ² n) _ 1
Maximum Green (s)	15.0	30.0		15.0	30.0	30.0						
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0	a de la com	1.0		1.0	1.0	which is the second reason of the second sec		1.0		
Lost Time Adjust (s)	0.0	0.0	121120	0.0	0.0	0.0	0.0	0.0 6.0	- 19 - 19 - 19 - 19 - 19 - 19 - 19 - 19	0.0 6.0	0.0	43.04
Total Lost Time (s) Lead/Lag	6.0 Lag	6.0 Lead		6.0 Lag	6.0 Lead	Lead	Lag	Lead		Lag	Lead	•
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	0.010 (Contractor Contractor Contra	4
Walk Time (s)	5.0	5.0			5.0	5.0		5.0	e religio contractorio dansi d	5.0		
Flash Dont Walk (s)		11.0			11.0	11.0		11.0		11.0		
Pedestrian Calls (#/hr)	0	0			0	0	1 AC	0		0		
Act Effct Green (s) Actuated g/C Ratio	45.0 0.39	30.0 0.26		45.0 0.39	30.0 0.26	51.0 0.45	45.U 0.39	30.0 0.26		45.0 0.39	30.0 0.26	
v/c Ratio	0.39	0.20		0.39	0.20	0.45				0.35		
Control Delay	18.6	52.0		30.7	34.9	1.7	21.1	30.7		24.4	47.8	orna autor salaña Salik

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2016 No-Build Traffic Volumes (AM Peak Hour) NYS Route 32 and NYS Route 300

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mediop	C(#) (#)	(#1*) 5	2 8 8 8 8				(¶\$}€	Ň		(ja)		
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		-0.0	0,0	
Total Delay	18.6	52.0		30.7	34.9	1.7	21.1	30.7		24.4	47.8	
LOS	B	D		с с	C	A	C	С		C	, D	
Approach Delay	n, brugt venafter valdt útladess om laddet d	49.1	no.c. ac.commet.c. c.fr	NAME AND ADDRESS OF A DESCRIPTION OF A	27.1			28.8	nagariya yayaya su gara ya a		39.9	COCOUNT BOOM FAME 3.374
Approach LOS		D	1000	Control Pro	C			C			D	
Stops (vph)	16	298		77	84	2	22	89	t financial and and and the	102	255	
Fuel Used(gal)	0	6,		1	1	0	.0	2		2	5	1997
CO Emissions (g/hr)	20	440		97	102	7	24	107		113	324	
NOx Emissions (g/hr)	4	86		19	20		5.	21	6-6-6-	22	63	
VOC Emissions (g/hr)	5	102		22	24	2	5	25	2000 S 100	26	75	
Dilemma Vehicles (#)	U	1, V. i		. U	U	U	U V	····U		U.	U U	
diteration Sunney		i i i i i i i i i i		an a		a Salati Alatin		i i i i i i i Li i i i i i i i i i i i i		e e e e e	: 	5.1%. 12 [%]
Area Type: O	ther			2 - 19 - 14 - 44 1			• s pist			4.24	1	
Cycle Length: 114												
Actuated Cycle Length: 114						1 - D	5 - Sept S				r = r	
Offset: 72 (63%), Referenced	to phase	2:NBL an	d 6:SBL,	Start of G	ireen		an a constant of the second					
Natural Cycle: 90			h-ni (si				2014	A 2 3.				
Control Type: Pretimed									54.81 * X2 * X		and the states of	
Maximum V/c Ratio: 0.81		() (1) (1)	3078-517F		NATE OF					evê pêşekê		
Intersection Signal Delay: 38.			NUMBER OF STREET		ersection		o the	1 P		1		
Intersection Capacity Utilization)n 63,9%	(14	n i lui	U Level of	Service	B. G.					

Analysis Period (min) 15

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Splits and Phases: 3:

₽ _{ø1}	ø2 (R)	493	√ ø4
36 s	21s	36 s	215
↑ ø5	ø6 (R)	₽ 7	_ ▲ _{Ø8}
36 81	215	36 5	215

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			(m) = [m) .									(A) #] #
Lane Configurations				<u>100856550</u>	<u></u> ∱		ningaa yaki. Ti	e tanàn dikinasi.		a o ci diferenzi o co T	}	2. :
Volume (vph)	39	256	90	114	108	45	- 38	1 - 83	61	193	315	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	250		250	225	2. Alternation of the	0	NAT DESCRIPTION OF THE OWNER OF T		- 0
Storage Lanes	1 20		0	1)	1		0	1 25		U
Taper Length (ft) Lane Util, Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.957	1.00	1.00	1.00	0.850		0.931		1.00	0.983	
Fit Protected	0.950			0.950	an a		0.950			0.950	20229-0409-021-0223	
Satd. Flow (prot)	1770	1783	0.	1770	1863	1583	1770	1734	0	1770	1831	0
Flt Permitted	0.673			0.228	NAME AND ADDRESS OF ALL OF A		0.177		(2546 MENSION & FRENCH	0.508		274500000000000022
Satd. Flow (perm)	1254	1783 -	0	425	1863	1583	330	1734	t: 101	946	1831	0
Right Turn on Red	a de la compañía de l	17	Yes	×		Yes 86		37	Yes		2	Yes
Satd Flow (RTOR)		30			30	00		30 30			5 30	317 H
Link Distance (ft)		363			278	· · · · · · · · · · · · · · · · · · ·		183	1.0			
Travel Time (s)	i Provo di se di Contri mor	8.3	CVIIII		6.3		11. O C C C C C C C C C C C C C C C C C C	4.2			4.4	1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
Peak Hour Factor	0.79	0.92	0.81	0.89	0,87	0,61	0,80		0.61	0,89		0.58
Adj. Flow (vph)	49	278	111	128	124	74	48	117	100	217	375	47
Shared Lane Traffic (%)							- Alera	1 1 1 1 017		0.17	100	
Lane Group Flow (vph)	49	389 No	0	128 No	124 No	74 • No	48 No	217 No	0 No	217 No	422 No	0 No
Enter Blocked Intersection	No Left	Left	No Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	LOIL	12	(Ngm	LGI	12	ragin		.12	Tugin	E CIT		A S
Link Offset(ft)		0			Ū			0			0	CONTRACTOR I
Crosswalk Width(ft)		16			16	n en e		16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1:00	1,00	1.00	1,00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15 pm+pt		9	15 om+pt	ATA .	9 custom	15 pm+pt	NA	9	15 pm+pt	. NA	9
Turn:Type Protected Phases	s pm+pt 8	NA 1 3		spm+pt A	7 NA 1	custom #	≈pin±pt 2	NA 5		рптрст 6	1 (NA)	
Permitted Phases	3			- 7.	, 1612 - 43	6	5			1.		L. IV. Ca
Minimum Split (s)	15.0	30.0		15.0	30.0	30.0	15.0	30.0		15.0	30.0	and the second
Total Split (s)	21.0.	36.0	bedd.s.	21.0	36.0		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	36.0		21.0	36.0	
Total Split (%)	18.4%	31.6%	tur mirmakak sejali rida bila	18.4%	31.6%	31.6%	18.4%	31.6%		18.4%	31.6%	
Maximum Green (s)	15.0	30.0		15.0	30.0	30.0		30.0	\$÷	15.0	30.0	
Yellow Time (s)	5.0 1.0	5.0 1.0		5.0	5.0	5.0	5.0	5.0 1.0		5.0	5.0	1. Providence
All-Red Time (s) Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total LostiTime (s)		6.0	iv studiji	6.0		6.0		6.0				
Lead/Lag	Lag	Lead		Lag	Lead	Lead	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	COMPANY AND ADDRESS OF ADDRESS AND ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDR	internet	Yes	Yes		Yes	Yes		Yes	Yes	
Walk Time (s)	5.0	5.0			5.0	5.0	to the state of the second	5.0	LAND, OF LCC.	5.0		
Flash Dont Walk (s)		11.0	47. v. 194		Manager and a second	11.0		: 11.0				
Pedestrian Calls (#/hr)	0 • 45.0	0 30.0	1.1.1	15 D	0 **30.0	0 51.0	.45,0	0		0 45.0	20.0	14.19.14
Act Effct Green (s) Actuated g/C Ratio	45.0 0.39	0.26		45.0 0.39	0.26	0.45	45.0 0.39	0.26	and the second	45.0 0.39	0.26	
v/c Ratio	0.39	0.20	197 X 197	0.39		0.40	0.39	0.20		0.39		
Control Delay	18.9	52.0		30.7	34.9	3.3	23.6	32.3		26.9	59.3	
					-							

The Chazen Companies

Synchro 8 Report Page 1

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Queue Delay	0.0.	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	la Maria
Total Delay	18.9	52.0		30.7	34.9	3.3	23.6	32.3		26.9	59.3	
LOS	В	D		C -	C	A	C	C		C .	E	
Approach Delay		48.3	Nal 2 - 2000 for flore draman of		26.1		en anna fé drong inneacht "haft b'e art	30.7			48.3	
Approach LOS		D.			0. N	n shee		C -	e de la com		D.	
Stops (vph)	23	298		77	84	4	22	98		126	302	
Fuel Used(gal)	0	6		1	1.1	0		, 2		2 .	6	
CO Emissions (g/hr)	27	440	Malay Color Academic	97	102	10	25	118		143	441	
NOx Emissions (g/hr)	5	86		• 19	20	2.	5.1	23		28	e 2020 Johnstott contactor com	
VOC Emissions (g/hr)	6	102	6 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	22	24	2	6	27		33	102	
Dilemma Vehicles (#)	. U	· · · · · · · · · · · · · · · · · · ·	S. 839.	. 0	U.	. U «		U.		0	. U.	9 Y Y
der sien Stenniky				: 					, tès it		·	1. A. 18
AreaiType: Ot	ner	14. J	$\{\cdot, \cdot\}$									1.4
Cycle Length: 114							and references and an and a state of the state					
Actuated Cycle Length: 114	S. 12		82.01				2 S. S.		d Marche		100 B.	
Offset: 72 (63%), Referenced	lo phase	2:NBL and	16:SBL,	Start of G	Breen		STREET, MILLING & TANK AND	14 2		**************************************	entra general historia admi	
Natural Cycle: 90	31.5								1.1	S		
Control Type: Pretimed						CONTRACTOR OF		2				
Maximum V/c Ratio: 0.87										1.1.1		16 10
Intersection Signal Delay: 41.2		NAMES OF A DESCRIPTION OF	1		ersection		A-44-3	P. C. Martin Mt.			V. (1940. 194	a nor a second
Intersection Capacity Utilizatio	n 60.8%		12 M	10	U Level of	Service	しったいい	et - 11 - 11 - 11	19 m 19 m		Mar Staller	

Analysis Period (min) 15

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Splits and Phases: 3:

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	1.7			5 X 10 10 4, 45	
Movements	200 2 0 271 20 27	2 0 N			
Vol, veh/h	7	86	29	138	449 68
Conflicting Peds, #/hr	0	0	0	0	0 0
Sign Control	Stop	Stop	Free	Free	Free Free
RT Channelized	-	None	•	None	- None
Storage Length	0 .			3 (- -) -	的目的目的。如果我们的关键是一种中心,并且我们是自己的
Veh in Median Storage, #	0	-	-	0	0 -
Grade, %	0		• • • • • • • • • • • • • • • • • • •	0	
Peak Hour Factor	92	92	92	92	92 92
Heavy Vehicles, %	2	2	2	2	2 2
Mvmt Flow	8	93	32	150	488 74
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Menoral Million	. Altorization				
Conflicting Flow All	738	281	562	0	tion and the state of the sta
	525	201	502	. 0	gan
Stage 1	213	8 8.000 (R. 20		- 19-51-0-11	
Critical Hdwy	6.63	6.93	4.14	1012-5265	
Critical Howy Stg 1	5.83	0.95	4,14		
Critical Hdwy Stg 2	5,43			-	
Follow-up Hdwy	3.519	3.319	2.22	10.04	
Pot Cap-1 Maneuver	369	717	1005		
Stage 1	559		4	100 T	
Stage 2	822		1310 (C. 1977)	- -	
Platoon blocked, %					这些国际时间的理想来曾经通过通过的理论和通过的问题。在199
Mov Cap-1 Maneuver	356	717	1005	- -	
Mov Cap-2 Maneuver	356				
Stage 1	559		-	-	
Stage 2	793				
			1.55 m.5		
(interaction of the second		<u> 1</u>			
HCM Control Delay, s	11.4		1.5		0
HCMLOS	В			1. 1	
Alter Buchler Alter		Willing S	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		
Capacity (veh/h)	1005	- 666			
HCM Lane V/O Ratio	0.031	- 0.152	· · · · · · ·		
HCM Control Delay (s)	CONTRACTOR AND A CONTRACTOR OF A	0 11.4			
HCM Lane LOS	A	A B	040-345-02		
HCM 95th %tile Q(veh)	0.1	- 0.5			

Traffic Impact Assessment Dunkin Donuts - Newburgh Town of Newburgh, NY

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Appendix C: Queues Analysis Results

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me mail	n (p) N (n)		QQ -			18	.				ing s As shall
Lane Group Flow (vph)	28	374	124	120	56	44	197	175	338		r wrannodd
v/c Ratio	0.05	0,78	0.35	0.24	0.07	0.11	0,41	0.35	0.70		
Control Delay	18.4	49.6	28.9	34.7	1.7	20.5	29.9	23.9	46.0		NI-AXX.2011.23498
Queue Delay	0.0	0.0	0.0	0.0	_ 0.0	0.0	0.0	0.0	0.0		
Total Delay	18.4	49.6	28.9	34.7	1.7	20.5	29.9	23.9	46.0		N. N. M.
Queue Length 50th (ft)	11	244 -	53	69	0	18	93	. 77	221		
Queve Length 95th (ft)	25	#384	90	116	0	35	117	123	298	THE PROPERTY AND ADDRESS OF THE ADDRESS OF THE	wamm2674
Internal Link Dist (ft)	2 2 C	283	i in state	198			103		112		
Turn Bay Length (ft)	100		250		250	225	na a comune-let 18 XIII	225			200791-2
Base Capacity (vph)	566	481 -	356	490	755	383	484	498	486		
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	and the state of the second second second	1000000000
Spillback Cap Reductn	0	0	0	0	0	. 0 ;		0	0		er er
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		Maariisa
Reduced v/c Ratio	0.05	0.78	0.35 -	0.24	0.07	0.11	0.41	0.35	0.70		
ng estilen zunnator						<u></u>			an a		

195th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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Cite Cours			(18)	19 ¥jæsr	W.S.K	ŃŴ		SHL.		
Lane Group Flow (vph)	37	389	128	124	57	48	204	182	354	countral days of the
v/c Ratio	0.07	0.81	0.37	0.25	0.08	0.13	0.42	0.37	0.73	
Control Delay	18.6	52.0	30.7	34.9	1.7	21.1	30.7	24.4	47.8	
Queue Delay	0.0	0.0	0.0	0.0	- 0.0	0.0	0.0	0.0	0.0	<u>.</u>
Total Delay	18.6	52.0	30.7	34.9	1.7	21.1	30.7	24.4	47.8	
Queue Length 50th (ft)		257	55	72	0	20	.98	80	234	
Queue Length 95th (ft)	30	#408	93	119	0	38	123	128	314	
Internal Link Dist (ft)		283		198			103		112	1
Turn Bay Length (ft)	100		250		250	225		225		
Base Capacity (vph)	562	481	344	490	755	371	484	492	485	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	.0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	
Reduced V/c Ratio	0.07	0,81	0.37	0.25	0.08	0.13	.0.42	0.37	0.73	ΞY.
alteresterelleres Statestereley		Sec. 1. Sec.				s shall be			and the state of the second	

95th percentile volume exceeds capacity, queue may be longer.

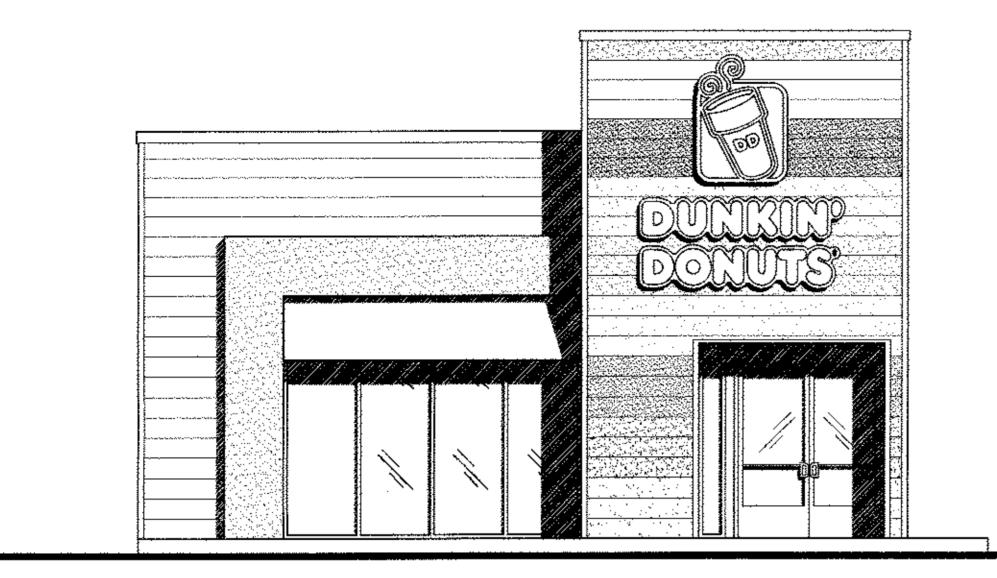
Queue shown is maximum after two cycles.

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		::]*}``	M(4)	- AUSTO-		19			(459) e (5) 82	
Lane Group Flow (vph)	49	389	128	124	74	48	217	217	422	an a
v/c Ratio	0.09	0.81	0.37	0.25	SECTIONS/DECATES	0.15	0.45	0.45	0.87	建長相望的發展就
Control Delay	18.9	52.0	30.7	34.9	3.3	23.6	32.3	26.9	59.3	
Queue Delay	0.0	0,0	0.0	0.0	0.0	0.0	0,0	0.0	0.0	
Total Delay	18.9	52.0	30.7	34.9	3.3	23.6	32.3	26.9	59.3	
Queue Length 50th (ft)	20	257	55	72	0	20	110	98	293	
Queue Length 95th (ft)	38	#408	93	119	3	38	134	151	#412	
nternal Link Dist (ft)	i Silati	283		198		12	103		. 112	
Turn Bay Length (ft)	100		250		250	225		225		
Base Capacity (vph)	562	481	. 344 .	490	765	319	483	481	485	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	U	
Spillback Cap Reductn	0	·	0	. 0	0	0	Ų.	. 0.	U U	a Sandara ang Kangalan Na
Storage Cap Reductn	0	0	0	0	0	0	0	0	U A AZ	
Reduced V/c Ratio	0.09	0.81	0.37	0,25	0.10	0.15	0.45	U.45 c	0,8/	
nession Summer								A		

95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

LZL EQUITIES / DUNKIN DONUTS 301 ROUTE 32



Proposed Front East Elevation T-1. Scale: N.T.S.

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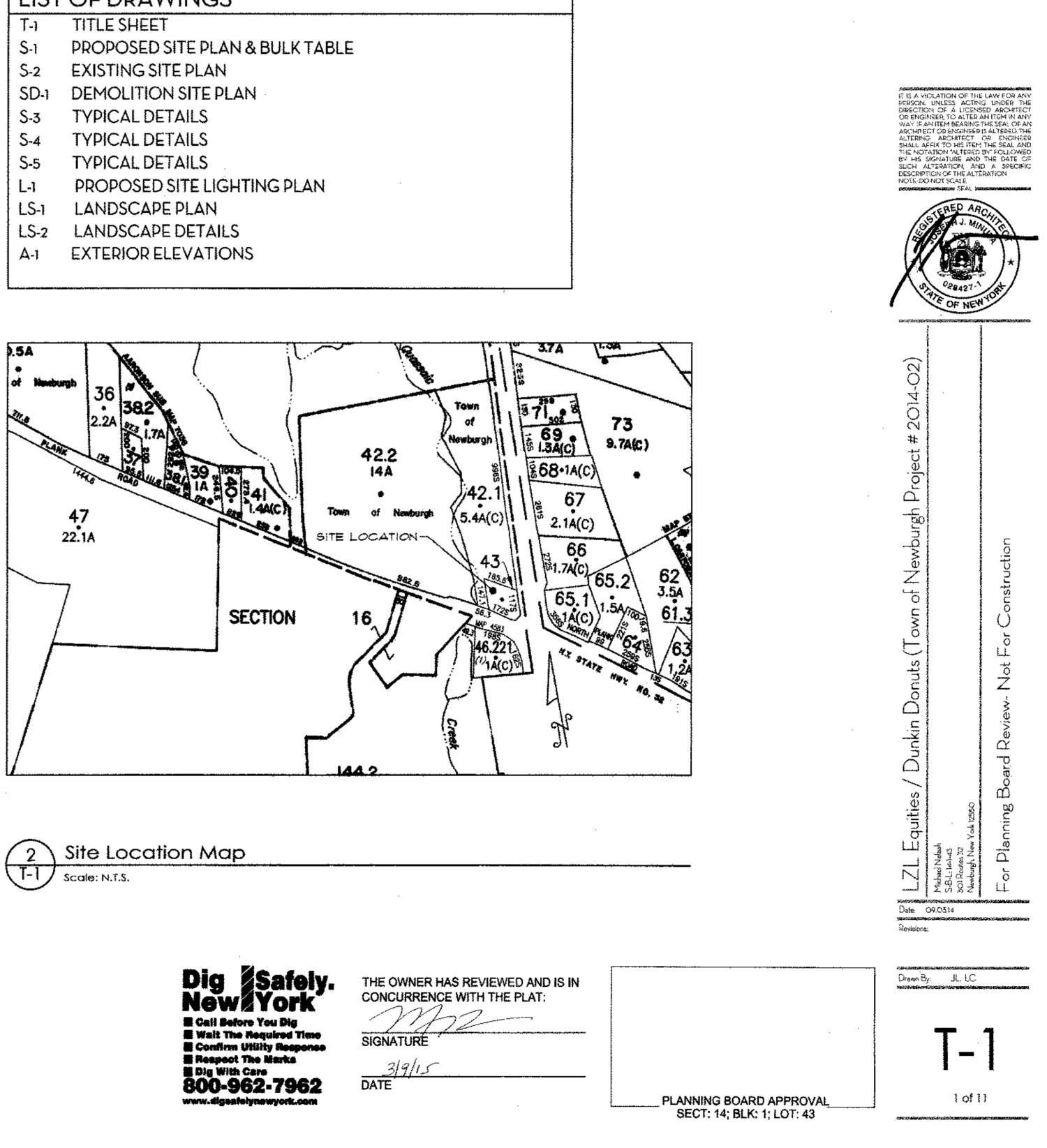
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	Legend		
	Area not in scope of work		ADA
Ö	WATER CLOSET		
ŏ	LAVATORY		
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<u>(</u> \$	NEW DOOR		APPER
	EXISTING DOOR		ASST. BONT
	Existing Wall.		BD
1887	New CTU WALL		B.I.
2222	NEW RATED SHAFT WALL		BLDG
	New Masonry Wall		В.О.
	NEW STUD WALL		etr4
<u> </u>	CENTER LINE	Į	CL
	BEAM ABOVE		CLNG
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· ··	FENCE LINE		CONC
Ś	Setback Area		CONT
	FOOTING		COV.
	GRADE		CMU
0	CALL OUT		DH. DIA.
	SECTION MARKER		DL.
-	ELEVATION MARKER		ELEC.
	Backfill/UNDISTURBED EARTH		EQ. EQUIP
	exist earth		E.W.
			FDN
•	TARGET ELEVATION		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Æ	CENTERLINE		FIN.
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\$	WALL ASSEMBLY MARKER		FT.
1	Door Schedule Marker		ftg
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			GBL.
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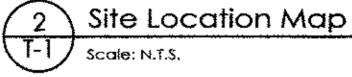
ЪД AMERICAN DISABILI ABOVE FINISH FLOO AUTHORITY HAVING زياط. ALu≿t ALUMINUM AMERICAN NATIONAL APPROXIMATE PFROX SST. ASSEMBLY BUILDING CODE NEU BONY BOARD BUILDING INSPECTO BUILDING 3LDG. BOTTOM OF BOTTOM 111 CLOSET CEILING CLNG CARBON MONOXIDE CONCRETE CONC CONTINUOUS CONT. COVERAGE COV. CONCRETE MAGONR DOUBLE HUNG DIAMETER DEAD LOAD DETAIL ELECTRIC £L≣C, EQUAL. EQUIPMENT QUIF EACH WAY FOUNDATION FIRE INSPECTOR Finitohi FLOOR FOOT FOOTING FRONT YARD GALVANIZED ALV. GENERAL CONTRACT GROUND SHOU LOAD aSL. GYP GYPSUM HORIZ. HORIZONTAL

Abbreviation	S	· · · · · · · · · · · · · · · · · · ·
TIES ACT	∺ 7.	HEIGHT
R	INSTALL.	INSTALLATION
JURISDICTION	INGUL.	INSULATION
	Jata	e t eloi
L STANDARDS INSTITUTE	1 10 .	POUND
	L.L.	
	LVL	LAMINATED VENEER LUMBER
YORK	MAX.	Maximum
	MIL.	MILLIMETER
Ŕ	MIN.	1-11-11-11-11-1
	M.O.	MASONRY OPENING
	ITTL.	METAL
	N/A	NOT APPLICABLE
	N.T.S.	NOT TO BEALE
	0.C.	ON CENTER
DETECTOR	O.H.	over head/over hang
	P.E.	PROFESSIONAL ENGINEER
	POF	Pounds per square foot
	PS:	Pounds per square inch
t unit	R.A.	REGISTERED ARCHITECT
	天 府小年。	RENFORCING
	REF,	REFRIGERATOR
	R.O.	Rough opening
	R .Y.	REAR YARD
	50 	SMOKE DETECTOR
	SECT.	
	SF.	Square feet
	95 a+l	STAINLESS STEEL
·	STL	Steel
	STOR	STORAGE
	5.Y.	SIDE YARD
	TBA	to be announced
	T.O.	TOP OF
	T.W.S.	TYPICAL WALL SECTION
	TTP	TYPICAL
	VERT.	VERTICAL
OR	VIE	VERIFY IN FIELD
>	W/	119: † 1-1
	w.c.	WALK-IN CLOSET
	W.W.M.	

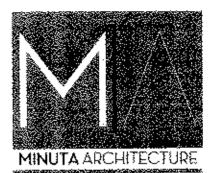
LIST OF DRAWINGS

- TITLE SHEET

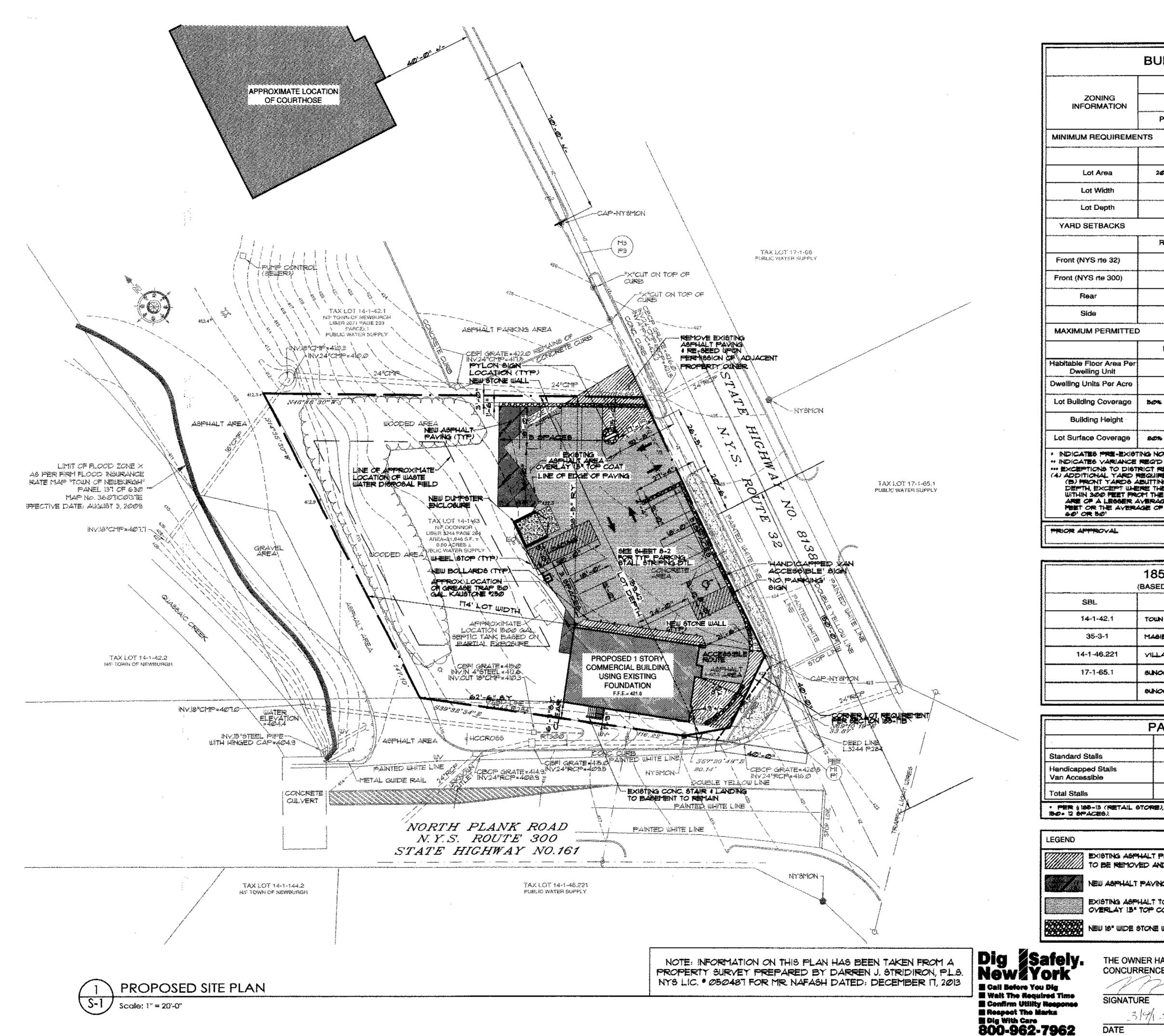








554 TEMPLE HILL ROAD NEW WINDSOR, NY 12553 P: 845.565.0035 F: 645.565.0022 jnko@minutaarobitecture.com



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A ALM DI DT & A DV	ついりす ディングリックトロー
	CHITECTURE
Carversen	

554 TEMPLE HILL ROAD NEW WINDSOR, NY 12553 P-845.568.0035 F:845.568.6622 info@minutearchitecture.com

Required Existing 20,000 60. FT. 21,946 5Q. #T -1*00* Ft 174 PT +/-125 FT FT +/-**IBB.4**2

ZONE :

Use :

Permitted with:

BULK TABLE REQUIREMENTS

Business B DISTRICT

Planning Board

Convenience store w/ or w/o gasoline filing station

Proposed

80. FT

ĦŤ

FŤ

21,946

n4

159.42

Use Subject to Site Plan Review by the

	Required	Exł:	sting	Prop	osed
ə 32)	*** <i>60</i> FT	•2i,B	<u></u> ₩7 •/-	**215	PT +/-
ə 300)	***60 FT	-4.9	FT +/-	++4,8	₽ Т +/-
	30 FT	62.6	PT +/-	62. 5 1	₽T +/-
	语 FT	1005	FT +/-	385	

		_	Proposed
N/A			
N/A			
50% 10,000 60 FT	8.3%	1,822 602 #1 +/-	9.2% 1,392 8Q. PT +/
35 FT	13	F T */~	21.5 FT +/-
80% 16,000 80 FT	44.3%	3,8 5 ∕2 5Q. #T +/-	44.8% 9,821,42 80. #14
-	N/4 50% 10,000 80 FT 35 FT	N/4 50% 10,000 80 FT 8.3% 35 FT 15	N/A BO% 10,000 BQ FT 8.3% 1,822 BQ FT +/- 35 FT 15 FT +/-

NDIGATES PRE-EXISTING NONCONFORMING CONDITION

··· EXCEPTIONS TO DISTRICT REGULATIONS 185-181

(4) ADDITIONAL TARD REQUIREMENTS: (4) ADDITIONAL TARD REQUIREMENTS: (5) FRONT TARDS ABUITING ALL COUNTY AND STATE HIGHWAYS SHALL BE AT LEAST SO PEET IN DEPTH, EXCEPT WHERE THE MAJORITY OF EXISTING BUILDINGS ON EITHER SIDE OF THE ROAD WITHIN 300 FREET FROM THE INTERSECTION OF THE NEAREST PROPERTY LINE AND STREET LINE ARE OF A LESSER AVERAGE OF ALL LOT DEPTHS WITHIN SAID 300 FEET, WHICHEVER IS GREATER AND OF DRIV

	185-18 EXCEPTIONS TABLE (BASED ON GOOGLE EARTH, NOT FIELD VERIF	
	BUILDING NAME	APPROX. SETBACK (FT)
2.1	TOWN OF NEWBUGH COURTHOUSE	40' +/-
-1	MA812'8 (DEL)	35' +/-
.221	VILLA ITALIA	B©' √-
5.1	SUNOCO BUILDING	T@' +/-
	BUNOCO GAS CANOPY STRUCTURE	2@' */-
	· · · · · · · · · · · · · · · · · · ·	1 ·····

	PARKING REQ	UIREMENTS	
	Required *	Existing	Proposed
	11	13	12
tails	1	\$	1
	12	14	B

EXISTING ASPHALT PAVING TO BE REMOVED AND RESEED

NEW ASPHALT PAVING

Existing Asphalt to recieve overlay 15" top coat

NEW 18" WIDE STONE WALL

THE OWNER HAS REVIEWED AND IS IN CONCURRENCE WITH THE PLAT:

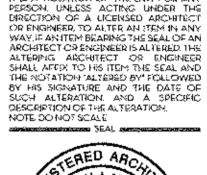
SIGNATURE

3/4/1.5

DATE

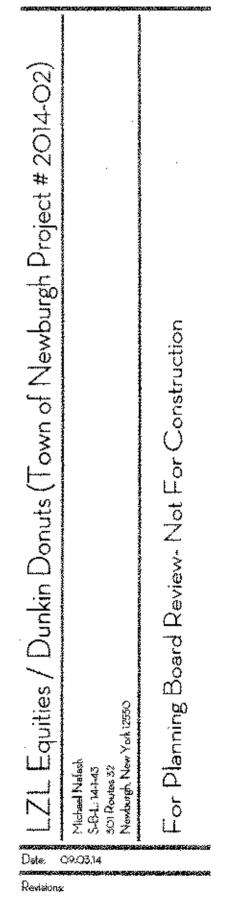
www.digestelynewyork.com

PLANNING BOARD APPROVAL SECT: 14; BLK: 1; LOT: 43



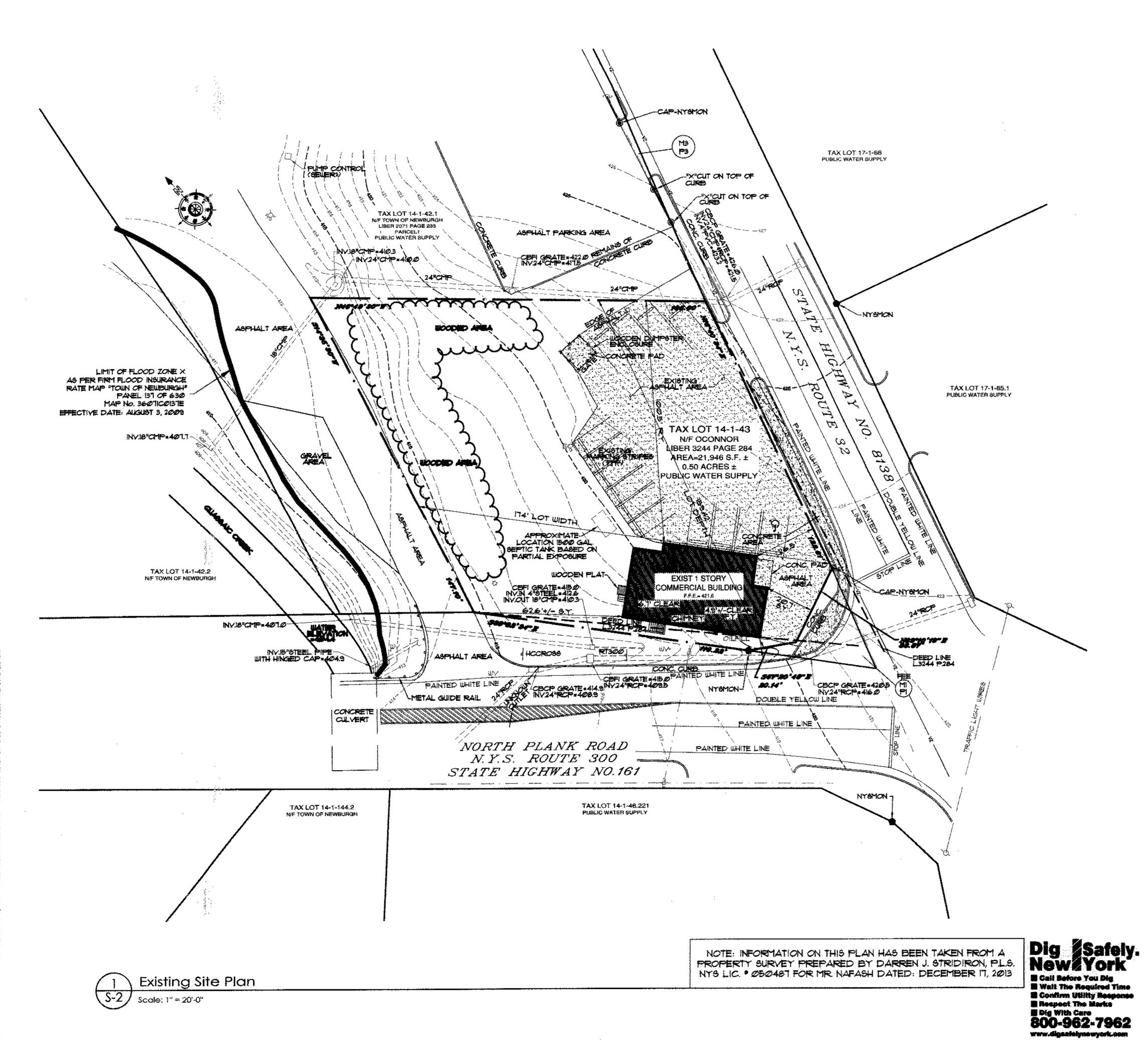
IT IS A VIOLATION OF THE LAW FOR ANY





Drawn By: JL, LC

2 of 11



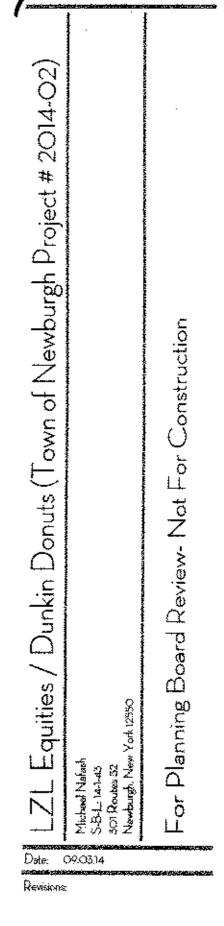
ł	THE OWNER HAS REVIEWED AND IS IN CONCURRENCE WITH THE PLAT:
	2222
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	3/9/15
	DATE '

	PLANNING BOARD APPROVAL
_	SECT: 14; BLK: 1; LOT: 43

IG BOARD APPROVAL	

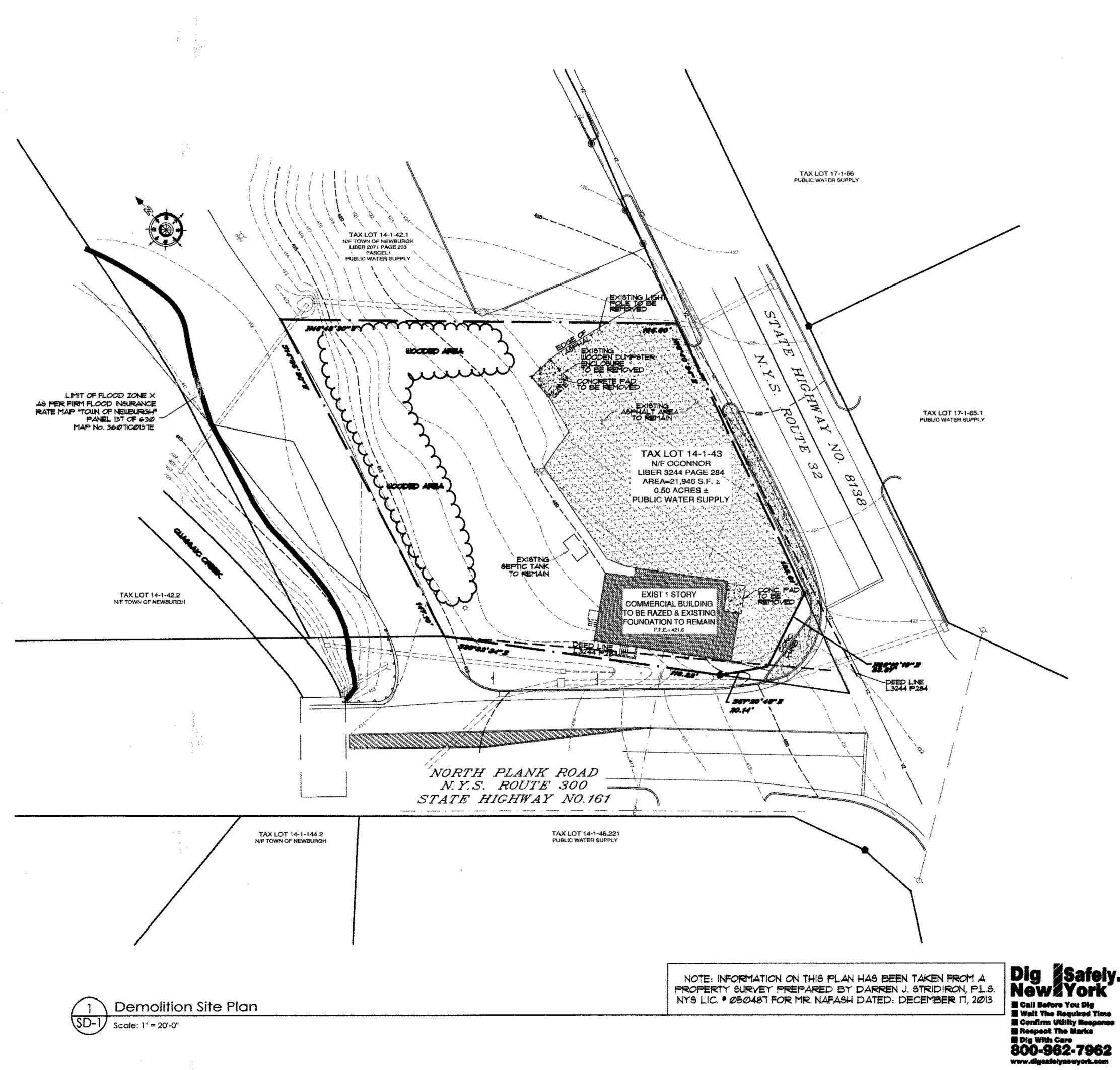
we By: Ji, LC
S-2
3 of 11

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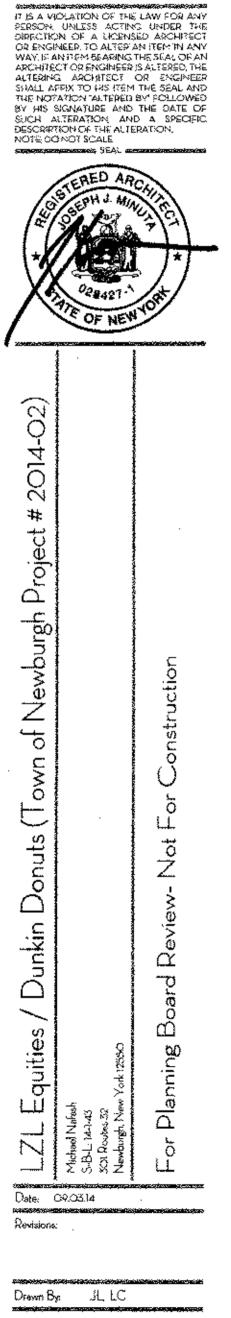






DATE





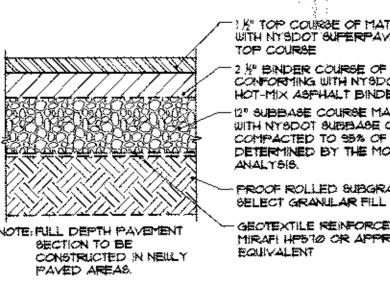
SD-4 of 11

THE OWNER HAS REVIEWED AND IS IN CONCURRENCE WITH THE PLAT:

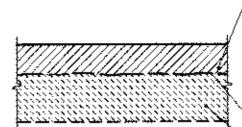
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SIGNATURE 3/9/15

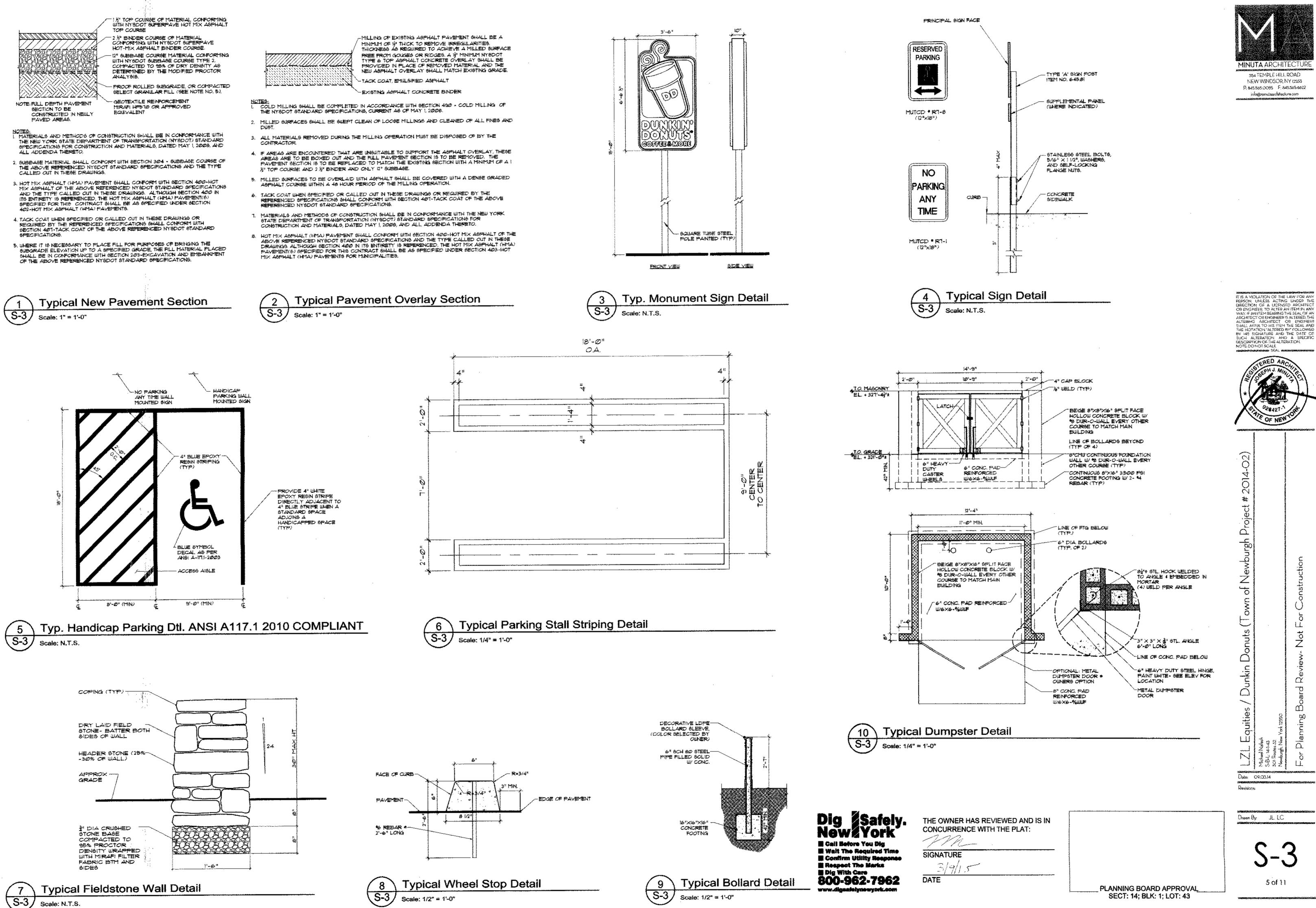
_ PLANNING BOARD APPROVAL_ SECT: 14; BLK: 1; LOT: 43



- CALLED OUT IN THESE DRAUNGS.
- AND THE TYPE CALLED OUT IN THESE DRAWINGS. ALTHOUGH SECTION 400 IN ITS ENTIRETY IS REFERENCED, THE HOT MIX ASPHALT (HMA) PAVEMENT(S) SPECIFIED FOR THIS CONTRACT SHALL BE AS SPECIFIED INDER SECTION 402-HOT MIX ASPHALT (HMA) PAVEMENTS.
- SHALL BE IN CONFORMANCE WITH SECTION 203-EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.

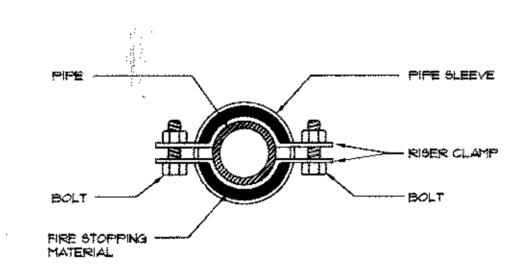


- MIX ASPHALT (HMA) PAYEMENTS FOR MUNICIPALITIES.



SPRINKLER NOTES

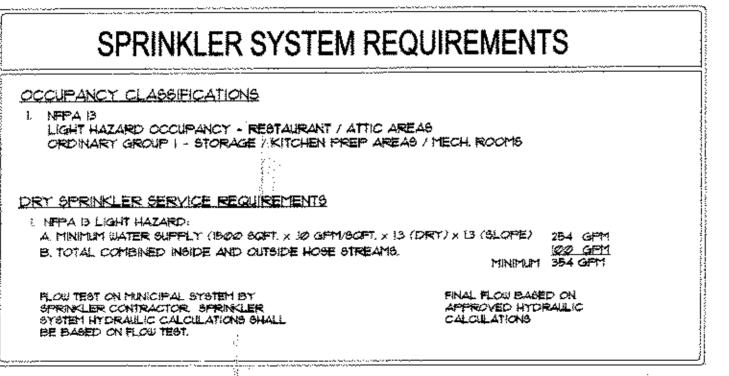
- CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AND OPERATIVE AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM, INCLUDING MAIN VALVES AND THE-INS WITH FIRE ALARM SYSTEM AS NECESSARY TO COMPLY WITH NEPA 13 SPRINKLER SYSTEM.
- 2. ALL SPRINKLER SYSTEM WORK SHALL BE INSTALLED IN ACCORDANCE WITH NEW YORK STATE UNIFORM FIRE FREVENTION AND BUILDING CODE, NTS ONH GUIDELINES, NATIONAL FIRE PROTECTION ASSOCIATION STANDARD B, AND ALL APPLICABLE LOCAL CODES.
- 3. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING, VALVES, SPRINKLER HEADS, TESTS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE SPRINKLER SYSTEM COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS.
- 4. CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL PIPING, SPRINKLER HEADS AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID CONFLICTS.
- 5. CONTRACTOR SHALL SEAL AROUND ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS WITH HILT! INTUMESCENT FIRE STOP MATERIALS TO MAINTAIN FIRE AND SMOKE RATINGS.
- 6. CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER, AND AGREES TO REPLACE DEFECTIVE WORK AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
- 1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING ALL EQUIPMENT, SPRINKLER HEADS AND PIPING WITH HYDRAULIC CALCULATIONS TO ENGINEER AND LOCAL FIRE INSPECTOR FOR APPROVAL. HYDRAULIC CALCULATIONS SHALL BE BASED ON RESIDUAL FLOW TEST AT SITE. DEMONSTRATE NEW SPRINKLER SYSTEM TO OWNER AND REVIEW MAINTENANCE PROCEDURES: SUBMIT (2) EQUIPMENT MANUALS TO ENGINEERS.
- 8. PROVIDE CHROME PLATED ESCUTCHEON PLATES WHERE PIPES PASS THROUGH WALL, FLOORS, AND CEILINGS IN FINISHED AREAS.
- 9. CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING IN FINISHED AREAS TO ENSURE CONCEALMENT OF ALL PIPING IN WALLS, FLOORS AND CEILINGS.
- 10. CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTIONS FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL NOT DRILL OR OUT ANY STRUCTURAL METHERS WITHOUT FERMISSION OF ARCHITECT.
- 1. CONTRACTOR 19 RESPONSIBLE FOR CUTTING, PATCHING AND PAINTING ASSOCIATED WITH SPRINKLER WORK. SEE ARCHITECT'S SPECIFICATIONS AND GENERAL CONDITIONS FOR APPROVED MATERIALS AND METHODS.
- 12. EXACT LOCATION OF FIRE DEPARTMENT CONNECTION AND SPRINKLER STRIEM TEST/DRAIN SHALL BE APPROVED BY LOCAL FIRE DEPARTMENT CHIEF AND LOCAL FIRE INSPECTOR PRIOR TO INSTALLATION.
- 13. CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, TRENCHING, BACKFILL, COMPACTION AND RESURFACING ASSOCIATED SPRINKLER WORK SEE Architect's specifications and general conditions for APPROVED MATERIALS AND METHODS.
- 14. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OBSERVE ALL CLEARANCES.
- 15. ALL CONTROL WIRING SHALL BE IN ACCORDANCE WITH NEC. ELECTRICAL CODE AND ALL LOCAL CODES. ALL CONDUCTORS SHALL BE COPPER. 12011 - MINIMUM CONDUCTOR SIZE . 12. 247 MINIMUM CONDUCTOR SIZE . 18. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR APPROVED MATERIALS AND INSTALLATION METHODS.
- 16. CONTRACTOR SHALL OBSERVE CLEARANCES TO OBSTRUCTIONS.
- IT. CONTRACTOR SHALL CHAIN CONTROL VALVE IN THE OPEN POSITION.
- 18. CONTRACTOR SHALL COORDINATE POLER CONNECTION TYPE AND LOCATION OF DRY PIPE SPRINKLER SYSTEM AIR COMPRESSOR WITH ELECTRICAL CONTRACTOR PRIOR TO INSTALLING AIR COMPRESSOR
- 19. SPRINKLER CONTRACTOR SHALL PAY FOR DEDICATED POWER CONNECTION.
- 20. CONTRACTOR SHALL FURNISH SHOP DRAWINGS INDICATING LOCATIONS OF ALL EQUIPMENT AND DEVICES INSTALLED IN CELLINGS. THESE DRAWINGS SHALL BE APPROVED BY ALL CONTRACTORS FRICE TO INSTALLING ANY EQUIPMENT IN CEILINGS. CONTRACTORS THAT DO NOT FOLLOW SHOP DRAWINGS SHALL BEAR ALL COSTS FOR RELOCATING DEVICES AND EQUIPMENT IN CONFLICT WITH OTHER EQUIPMENT.
- 2. CONTRACTOR SHALL FURNISH & INSTALL KNOX BOX AND EXTERIOR INDICATING LIGHTS AS REQUIRED BY AUTHORITY HAVING AIRISDICTION

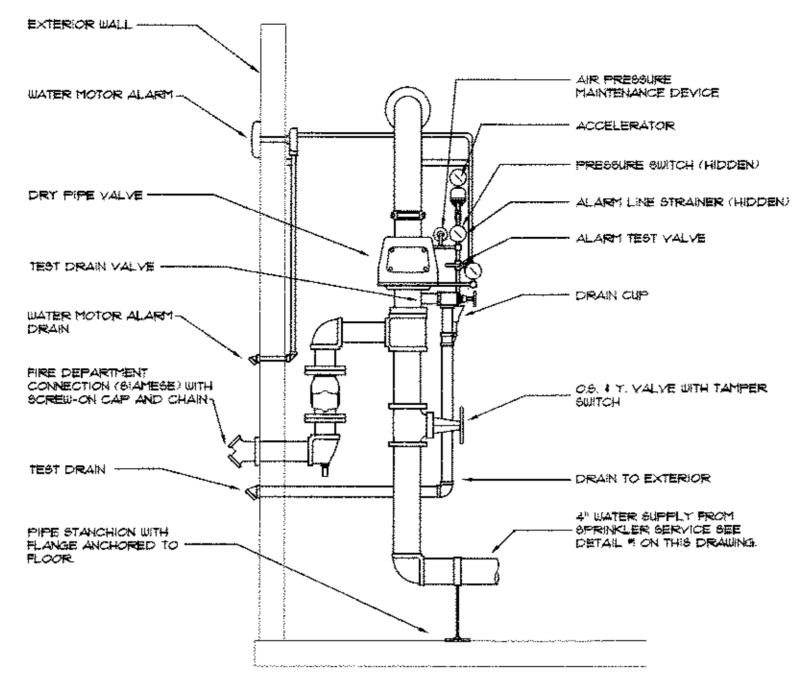


Support / Anchor For Pipe Risers

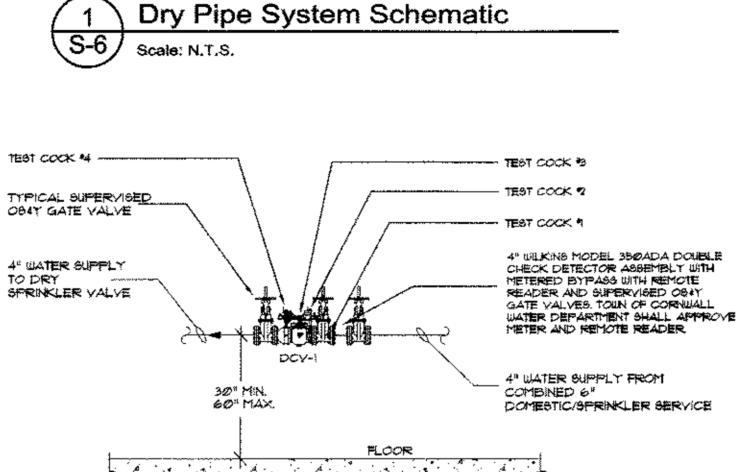
S-6 Scale: N.T.S.

-3





NOTE: LOCATE DRY PIPE SYSTEM VALVE IN BOILER ROOM.



NOTE: SUPPORT PIPING AND DOUBLE CHECK VALVE BACKFLOW PREVENTER OFF FLOOR WITH PIPE STANCHIONS AND ANCHOR TO FLOOR

REQUIRED CLEARANCES (DOUBLE CHECKVALVE)

- 1. FRONT OF CHECKVALVE (2'-6") MINIMUM
- 2. BEHIND DOUBLE CHECKVALVE (12") MINIMUM
- 3. DISCHARGE FORT (1-6") MINIMUM ABOVE FINISHED FLOOR
- 4. BACKFLOW PREVENTER MINIMUM (2'-6") ABOVE FINISHED FLOOR
- 5. BACKFLOU FREVENTER MAXIMUM (5'-0") ABOVE FINISHED FLOOR
- 6. MINIMUM (12") CLEAR ABOVE BACKFLOU PREVENTER

2 S-6

Sprinkler System Equipment Scale: N.T.S.

SPRINKLER SYSTEM TESTS

- HYDROSTATIC 200 POLFOR 2 HOURS WITHOUT LOSS OF PRESSURE
- DRY PIPE AND DOUBLE INTERLOCK SYSTEMS AIR TEST IN ADDITION TO HYDROSTATIC TEST, AIR PRESSURE LEAKAGE TEST AT 40 PSI FOR 24 HOURS WITH LESS THAN 1 % PSI LOSS.
- 3. SYSTEM OPERATIONAL TESTS WATER FLOW DETECTING DEVICES
- 4. MAIN DRAIN VALVE STATIC AND RESIDUAL PRESSURES. 5. CONTRACTOR SHALL PERFORM ALL SPRINKLER SYSTEM TESTS REGULAED BY
- LOCAL FIRE INSPECTOR OR AUTHORITY HAVING JURISDICTION. 6. ALL TESTS WITNESSED BY LOCAL FIRE INSPECTOR OR AUTHORITY HAVING
- JURISDICTION. SUBMIT REPORT ON ALL TESTS TO LOCAL FIRE INSPECTOR AND ENGINEER FOR APPROVAL.

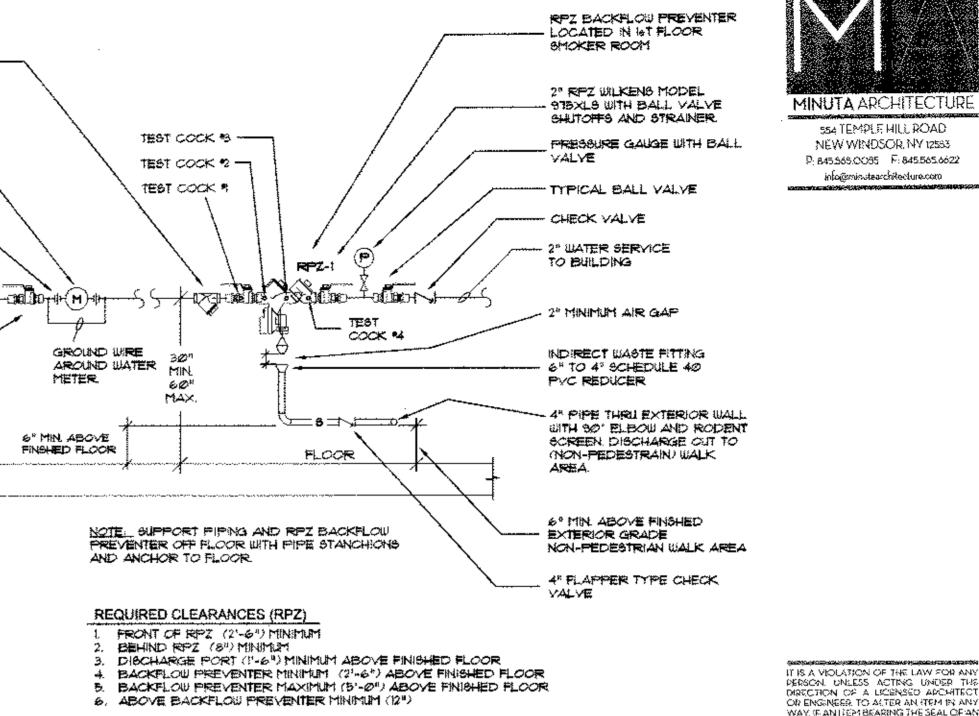
TYPICAL STRAINER -2" WATER METER WITH REMOTE Reader by plumbing CONTRACTOR. WATER METER AND ----REMOTE READER SHALL BE APPROVED BY LOCAL MUNICIPALITY TYPICAL UNION -2" FROM COMBINED Domestic/Sprinkler Water SERVICE IN BASEMENT. ALL ----EXPOSED FIPING FROM WATER ENTRANCE SHOULD BE STENCILED "FRED LINE TO BACKFLOW PREVENTER - DO NOT TAP" AT 5 FOOT INTERVALS. WATER METER LOCATED IN BASEMENT AT SERVICE ENTRANCE. SEE DRAUING (它-1)



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THE OWNER HAS REVIEWED AND IS IN CONCURRENCE WITH THE PLAT:

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PLANNING BOARD APPROVAL SECT: 14; BLK: 1; LOT: 43

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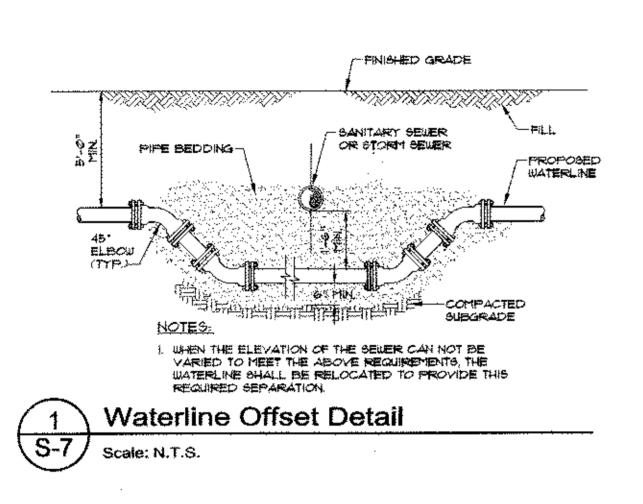
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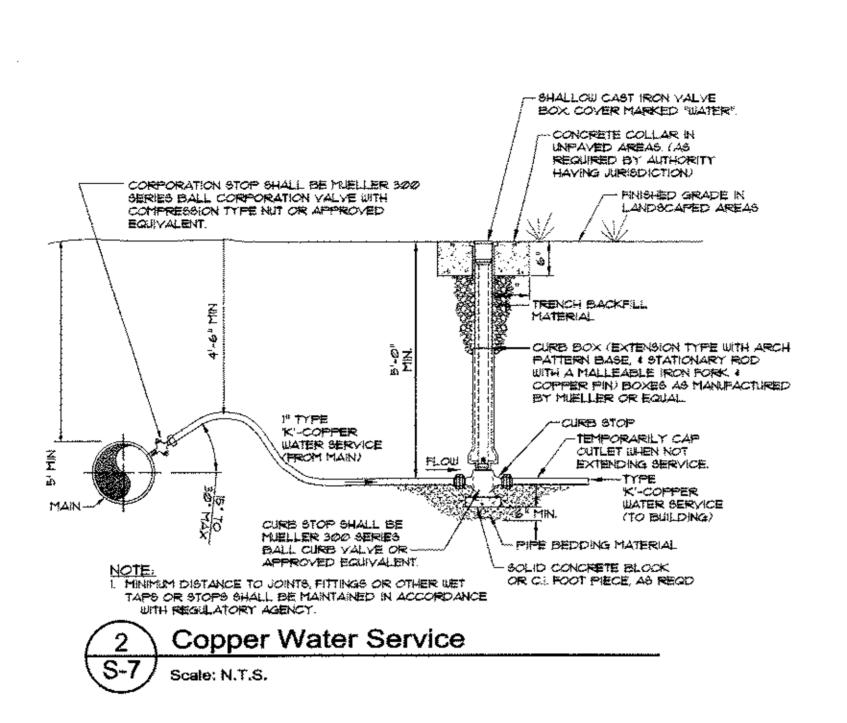
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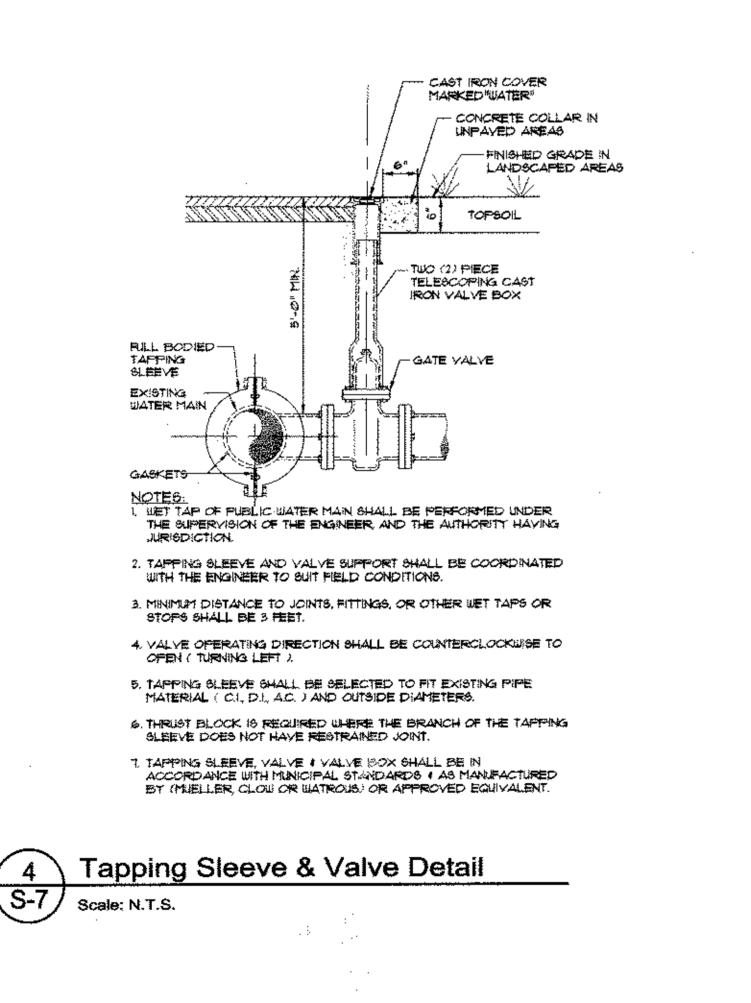
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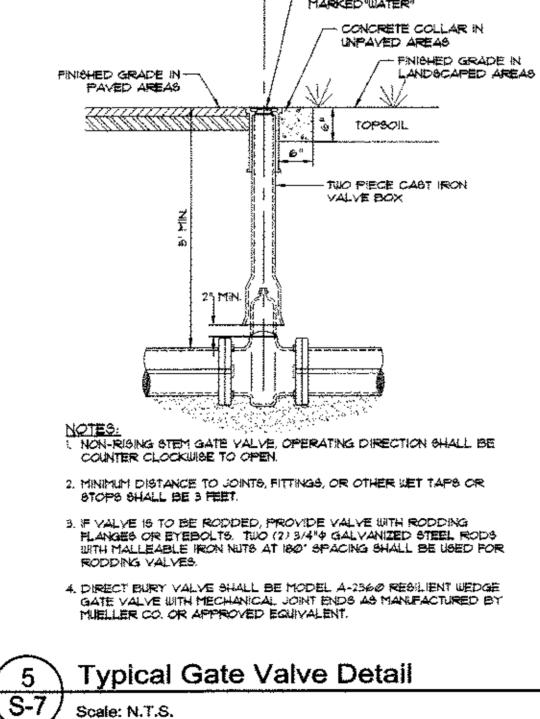
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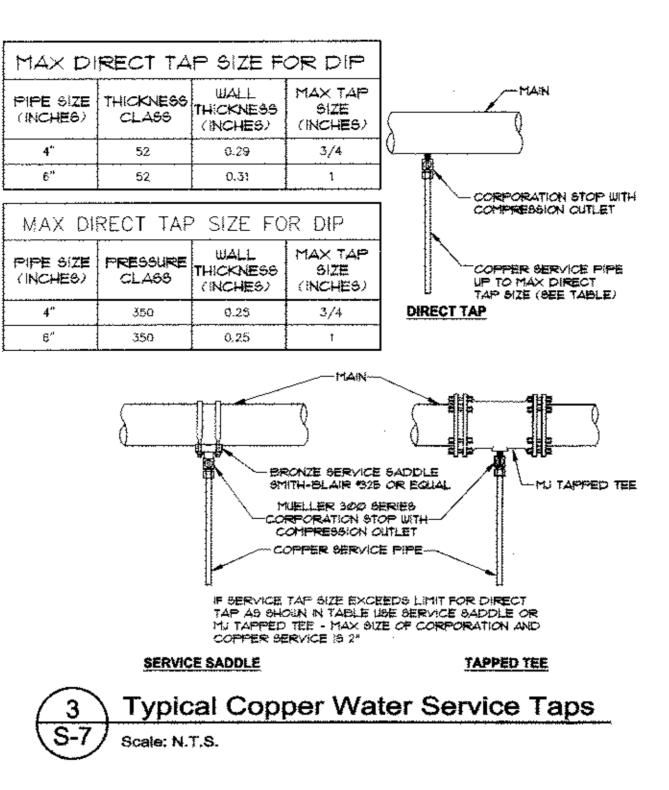
Drawn By: JÈ, LC











CAST IRON COVER MARKED "WATER"

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554 TEMPLE HILL QOAD NEW WINDSOR, NY 12553 P: 845 565.0055 F: 845 565.6622 info@minutaanchitectwo.com

<u>UATER</u>

- CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOUN OF NEWBURGH WATER STATEM REQUIRES A PERMIT FROM THE TOUN OF NEWBURGH WATER DEPARTMENT. ALL REQUIREMENTS SHALL CONFORM TO THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF HEALTH AND THE TOUN OF NEUBURGH.
- 2. ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINED, CLASS 52, DUCTILE IRON PIPE CONFORMING TO ANSI/AUUA CI51/A2151-31 OR LATER REVISION FOR DUCTILE IRON PIPE JOINTS SHALL BE EITHER PUSH-ON OR Mechanical Joint as Required.
- 3. THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS FOR JOINT RESTRAINT. RETAINER GLANDS SHALL BE EBBA IRON MEGALUG SERIES 1000 OR APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINED JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE WATER DEPARTMENT.
- 4. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI/AUUA CI10/A2110-ST OR LATEST REVISION FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI/AUA CI53/A2153-94 FOR LATEST REVISION DUCTILE IRON COMPACT FITTINGS.
- 5. ALL VALVES SHALL BE RESILIENT VEDGE, MECHANICAL JOINT GATE VALVES CONFORMING TO ANGI/AUUA CEOS OR LATEBT REVISION SUCH AS MUELLER A-2360-23 OR APPROVED EQUAL ALL GATE VALVES SHALL OPEN LEFT (COUNTER CLOCKIUSE)
- 6. TAPPING SLEEVE SHALL BE MECHANICAL JOINT SUCH AS MEALLER H-515 OR EQUAL. TAPPING VALVE SHALL BE RESILIENT WEIXEE GATE VALVES CONFORMING TO ANSI/AUUA CEOS SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL ALL TAPPING BLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM: TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEUBURGH WATER DEPARTMENT FRIOR TO CLITTING INTO THE PIPE.
- 1. ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOP SHALL BE MUELLER 300 SERIES BALL CORPORATION VALVE WITH COMPRESSION TYPE NUT OR APPROVED EQUIVALENT.
- 8. ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOUN OF NEUBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOUN OF NEUBURGH WATER DEPARTMENT.
- 9. THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS, ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED with the town of Neuburgh water department. Prior to PUTTING THE WATER MAIN IN SERVICE, SATISFACTORY SANITARY REGULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT.
- 10. PRESSURE LEAKAGE TESTS ARE REQUIRED AND SHALL BE DONE IN ACCORDANCE WITH AUWA C-600 STANDARDS.
- 1. DISINFECTION OF ALL NEW WORK SHALL BE DONE IN ACCORDANCE with Auwa C-651 - YEAR OF LATEST REVISION STANDARDS.
- 12. THE SERVICE CONNECTION SHALL BE INSTALLED AT A CONTINUOUS GRADE WITH NO ABRUPT HIGH FOINTS OR LOU POINTS
- 3. THE WATER LINE MAY BE DEFLECTED WITHIN PIPE SPECIFICATIONS OR LAID DEEPER IN AREAS WHERE CROSSINGS WITH THE SANITARY OR STORM WATER LINES OCCUR, TO ACHIEVE THE REQUIRED 15' VERTICAL SEPARATION DISTANCE AND 10' HORIZONTAL SEPARATION DISTANCE. REFER TO THE SANITARY/STORM SEVER-WATER LINE SEPARATION DETAIL, SHEET SD2.
- 14. ALL FACILITIES SHALL BE CONSTRUCTED WITH WATER CONSERVING PLUMBING FIXTURES.
- 5. BULDING SHALL BE EQUIPPED UITH BACKFLOU FREVENTORS. BACK FLOW FREVENTORS SHALL BE REVIEWED AND APPROVED BY TOUN OF NEUBURGH WATER DEPARTMENT PRIOR TO INSTALLATION.
- 6. PROPOSED WATER METER TO BE LOCATED WITHIN THE BUILDING AND SHALL BE APPROVED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO INSTALLATION.
- 17. WATERLINE SHALL NOT BE PLACED INTO SERVICE UNTIL SO AUTHORIZED BY THE TOWN OF NEUBURGH WATER DEPARTMENT.



IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED APCRITECT OR ENGINEER TO ALTER AN ITEM IN ANY



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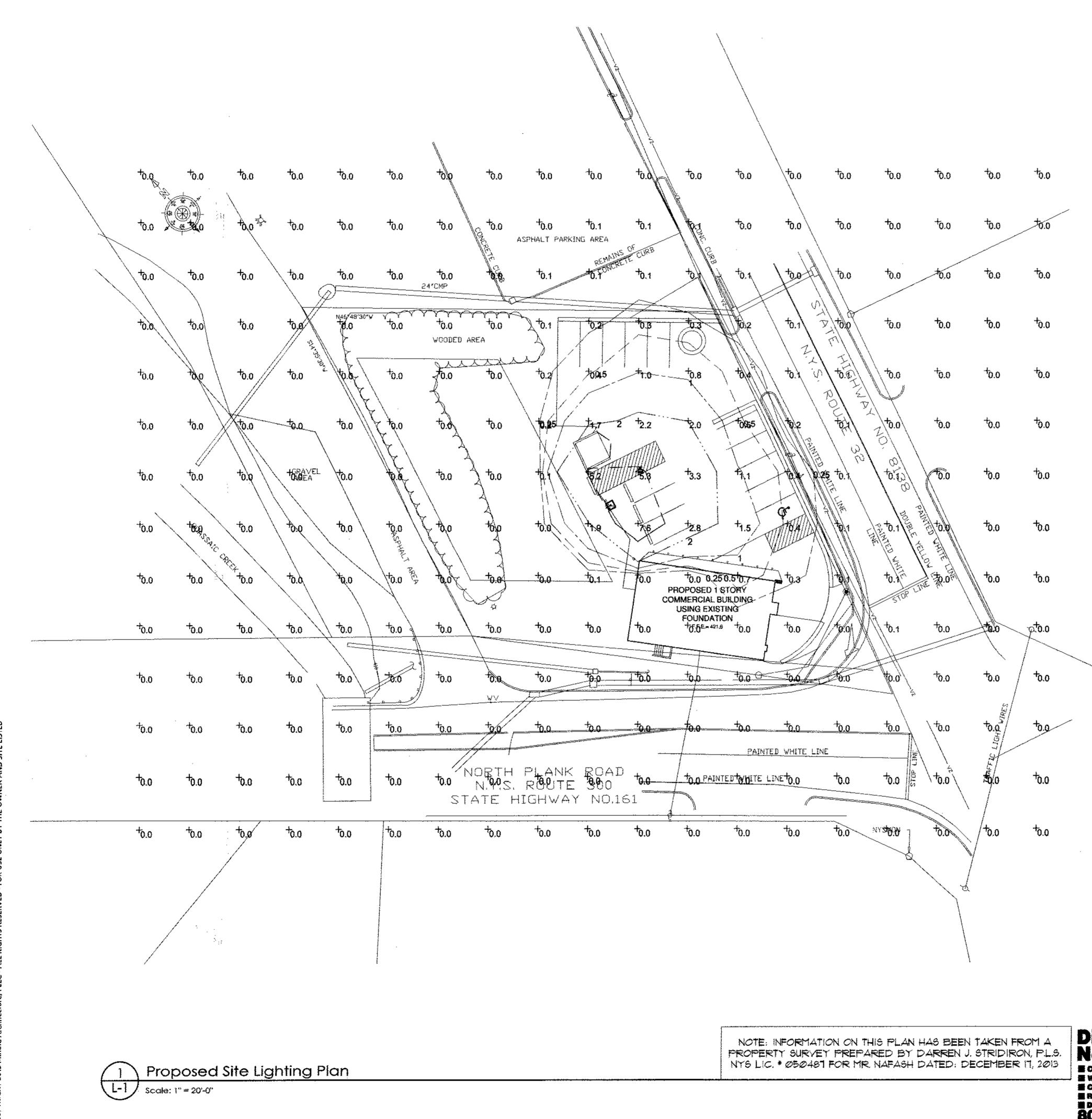
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7 of 11

Drawn By: JL, LC.

THE OWNER HAS REVIEWED AND IS IN CONCURRENCE WITH THE PLAT:

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PLANNING BOARD APPROVAL SECT: 14: BLK: 1: LOT: 43



Symbol	Qty	Label	Arrangement	Total L	amp Lumens	LLF	Des	cription	; 	
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All lighting fixtures are to be provided as specified through an established National Account Program with Villa Lighting Supply. Please contact Melanie Hurley, (National Accounts Dept.) 800-325-0963 (x462). Fax-314-531-8720. Pricing has been pre-negotiated and product is available to ship as needed at Villa Lighting Supply's Distribution Center in St. Louis, Mo.



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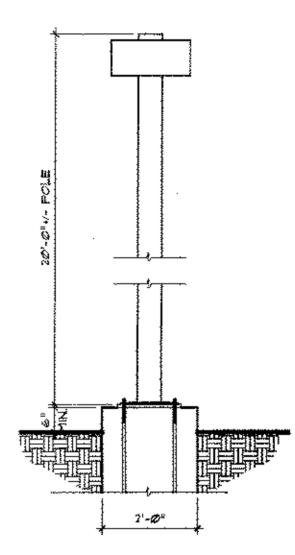
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554 TEMPLE HILL ROAD

554 TEMPLE HILL ROAD NEW WINDSOR, NY 12553 P: 845.565.0055 F. 845.565.6622 info@minutaarchiRecture.com



2 Typical Site Lighting & Post Detail

L-1 scale: 1/2" = 1'-0"

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SITE LIGHTING CRITERIA

FIXTURES SHALL BE EITHER 350W PULSE START METAL HALIDE (FULL CUT-OFF FIXTURES WITH SEGMENTED OPTICS AND VERTICAL BURN LAMPS), ENTIRE OPTICAL TRAIN IS FIELD ROTATE ABLE IN 90 DEG, INCREMENTS WITHOUT THE USE OF TOOLS OR 400W METAL HALIDE ALUMINUM HOUSING WITH ONE PIECE TEMPERED GLASS LENS - (2) CAPTIVE THUMB SCREWS THAT DISENGAGE THE LENS ASSEMBLY FROM HOUSING WITHOUT THE USE OF TOOLS. LENS WILL BE FLAT 3/16" CLEAR TEMPERED GLASS.

2. POLES ARE TO SQUARE STEEL, FINISHED IN A DARK BRONZE COLOR AND TO BE MOUNTED AT 20' OR 25' IN HEIGHT. THE POLE SHALL BE FURNISHED WITH (4) GALVANIZED ANCHOR BOLTS, NUTS & WASHERS, METAL TEMPLATE, HAND HOLE AND BASE COVER. VERIFY DIMENSIONS CONFORM TO ALL. LOCAL CODE REQUIREMENTS AND RESTRICTIONS BEFORE PLACING ORDER.

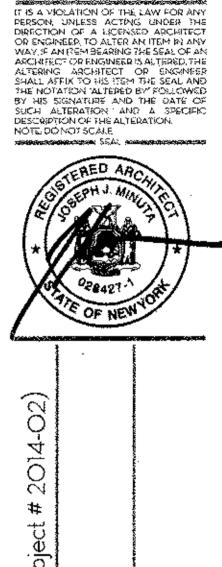
3. UTILIZING POLE AND BUILDING LIGHTING, OVERALL MINIMUM SITE LIGHTING SHOULD BE 3-5 FOOTCANDLES, CIRCULATION AREAS, SIDEWALKS, DRIVE-THRU LANES AND LANDSCAPING SHOULD BE HIGHLIGHTED. SHARP CUT-OFFS (IDEALLY \$/2 F.C.) AT THE PROPERTY LINES NEED TO BE MAINTAINED,

4. THE DRIVE-THRU LANES SHOULD MAINTAIN 3-5 FOOTCANDLES THROUGHOUT WITH A MAXIMUM OF .5 FC AT THE BACK PROPERTY LINE. WALL PACKS SHALL BE 175W MH FULL CUT-OFF WITH SEGMENTED OPTICS; SOLID FRONT AND MEDIUM THROW LIGHT DISTRIBUTION. THESE SHOULD BE MOUNTED ON THE BUILDING @ 12-15' ABOVE GRADE.

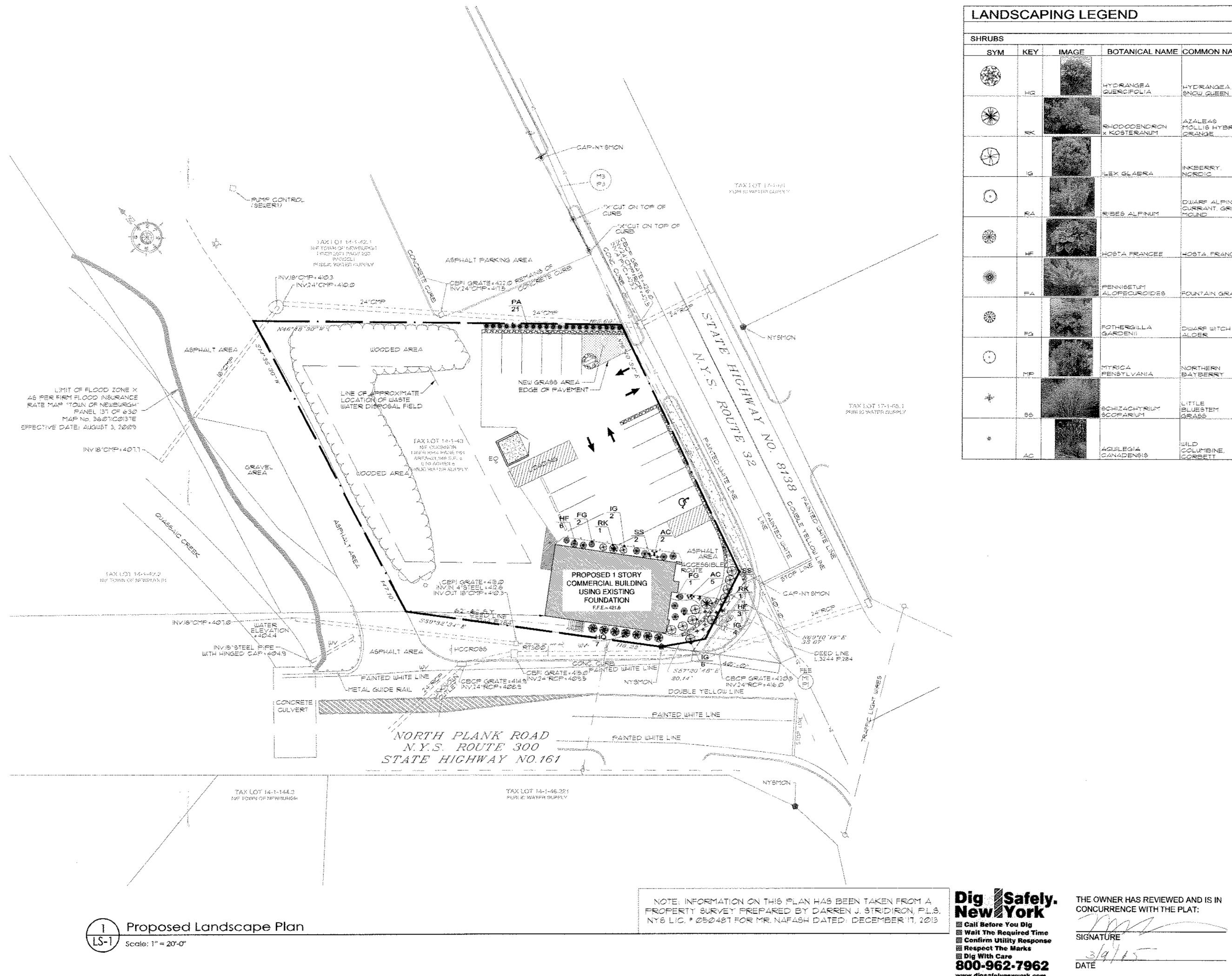
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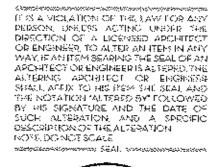


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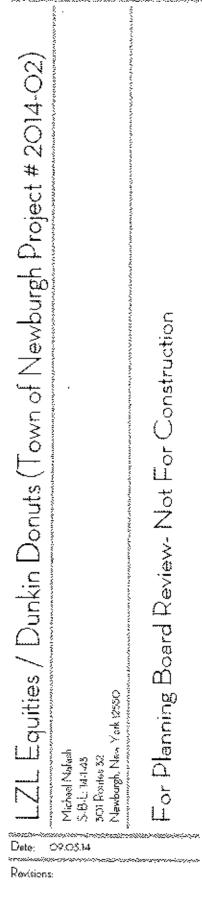
E	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING	NOTES
	HYORANGEA Quercipolia	MYDRANGEA. SN <i>CU Q</i> UEEN	45 SHOWN	5 GAL	48 8400N. 30'-60' 4748t	
	RHODODENDRON × KOSTERANUM	AZALEA8 Mollis hybrid, Orange	46 BHOUN	A for the foreign of the second s	48 SHOWN, 36"-48" APART	
	Xex glabra	INKBERRY. NORDIC	AS SHOUN	5 GAL	45 5HQUN 36'-48' 4PART	
	RIBES AL FINUM	DWARF ALPINE CURRANT, GREEN MOUND	AS SHOWN	2 GAL.	45 SHOUN, 36"-48" AFART	
	HØSTA FRANCEE	405TA. PRANCEE	AS SHCNIN		49 SHOUN, 36"-48" APART	
200 200 200 200 200 200 200 200 200 200	PENKI6ETUM ALOPECUROIDE6	FOUNTAIN GRASS	AG BHOUN	2 GAL.	48 SHOUN, 24"-36" APART	
1000000 I	FOTHERGILLA Gardenii	DWARF WITCH ALOER	45 SHOUN	3 GAL,	46 SHOWN 36"-48^ 4PART	
		NORTHERN BAYBERRY		30° HGT. AND	48° MAX	δ
	SCHIZACHTRUM	LITILE Bluestem GRASS	AS SHOWN		45 5HOUN. 12°- 18" APART	GRASSIO BE CUI BACK TEARLY (N SPRING
	AQUILEGIA	ULD COLUMBINE, CORBETT	AS Shoun		46 3HOUN 16"-18" 4PART	-



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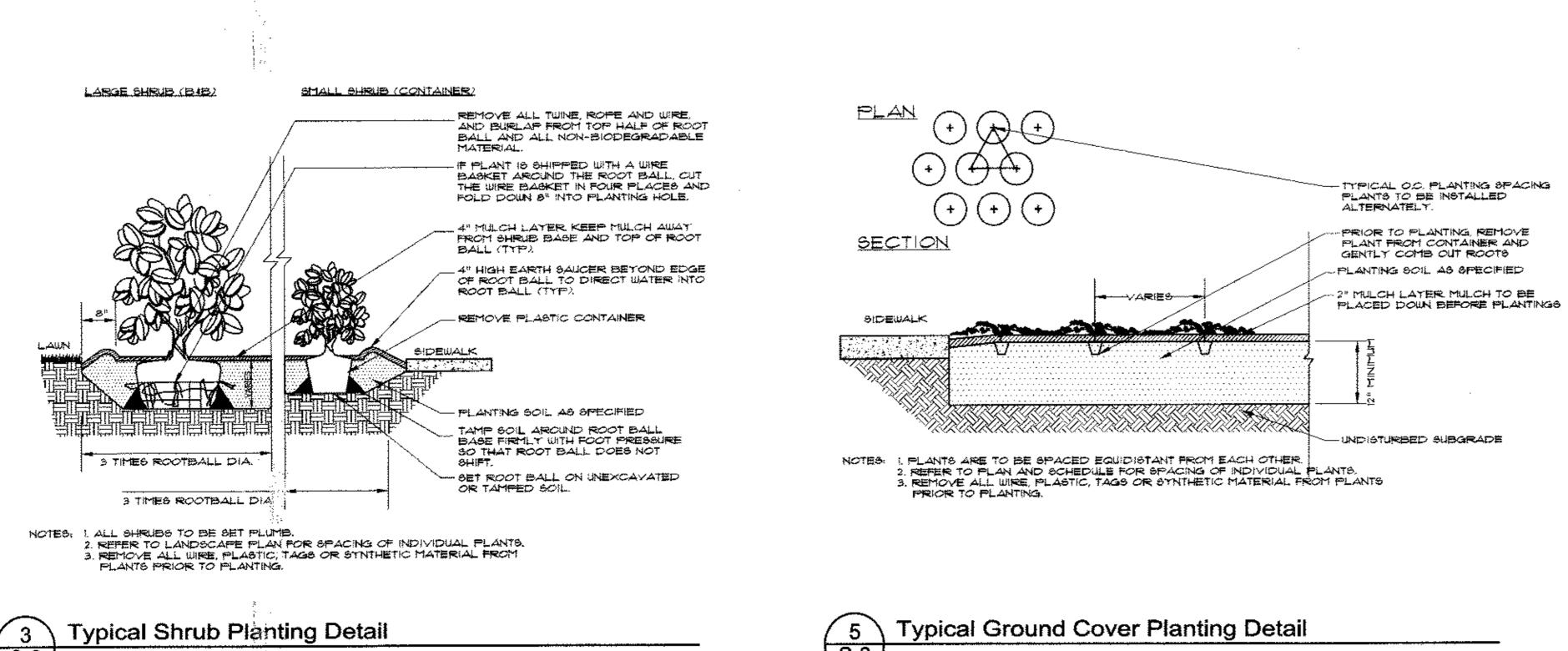




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PLANNING BOARD APPROVAL SECT: 14; BLK: 1; LOT: 43



S-3 Scale: N.T.S.

5 Typical Ground Cover Planting Detail

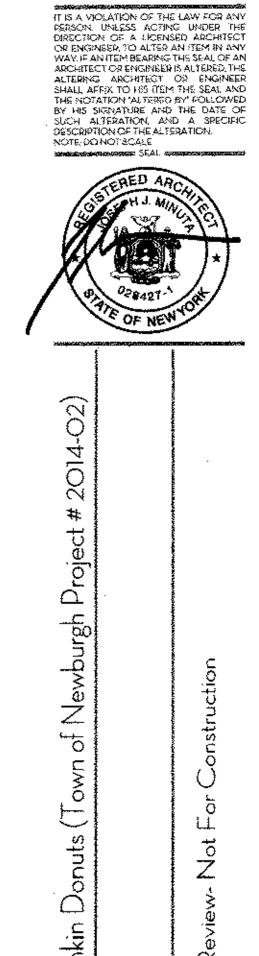
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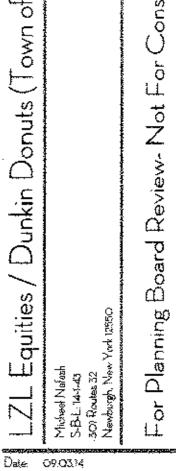
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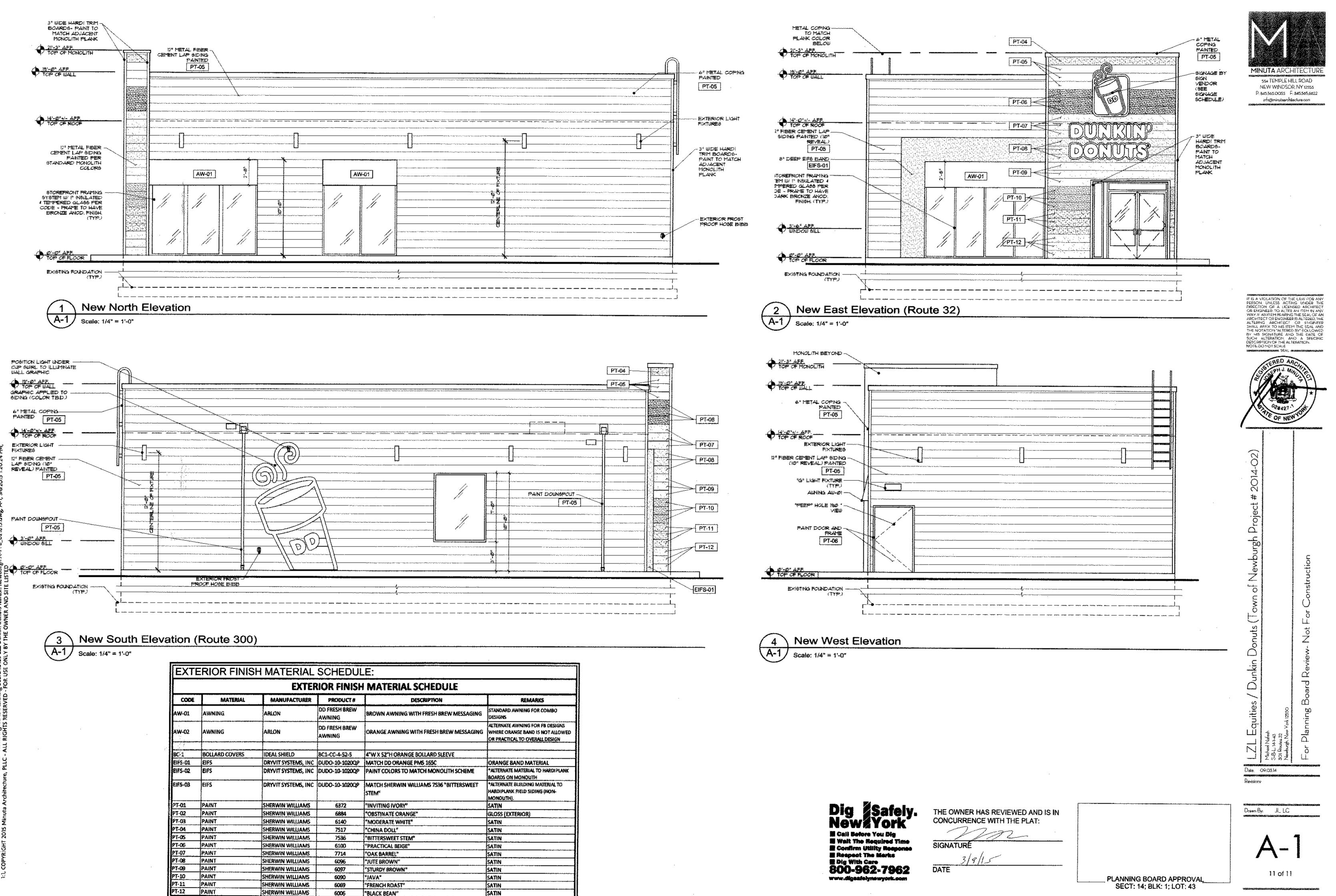


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_ PLANNING BOARD APPROVAL_ SECT: 14; BLK: 1; LOT: 43



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	REMARKS
ING	STANDARD AWNING FOR COMBO DESIGNS
	ALTERNATE AWNING FOR FB DESIGNS
ing	WHERE ORANGE BAND IS NOT ALLOWED
	OR PRACTICAL TO OVERALL DESIGN
	ORANGE BAND MATERIAL
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et	*ALTERNATE BUILDING MATERIAL TO
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6006

"BLACK BEAN"