RJ O'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 Montvale Ave., Suite 201 Stoneham, MA 02180
phone 781-279-0180 fax 781-279-0173

January 23, 2020

Juliet Walker, Planning Director
Planning Department
City of Portsmouth
1 Junkins Ave, 3rd Floor
Portsmouth, NH 03801

Regarding: Durgin Square, 1600 Woodbury Ave

Dear Ms. Walker,

RJ O'Connell & Associates, Inc. has summarized the following comments received by email on January 7th, 2020. We have reviewed the comments listed below in italics with responses following:

1. *Please complete the Site Plan Review check list and specify which Site Plan requirements you are requesting waivers from and why.*

   Response: The Site Plan Review check list has been completed and the Site Plan requirement waivers specified.

2. *The desire of the proponent to provide a driveway for the purpose of enhancing the visibility of the proposed store is understandable, but it must be engineered appropriately to ensure that it does not have a detrimental impact on the flow or safety of traffic in the area of the site.*

   Response: A meeting was held with the Traffic Department to review specific concerns and the proposed driveway has been reconfigured to address safety concerns. In addition, the Applicant's traffic engineer has prepared a memorandum regarding the concerns related to traffic flow and safety.

3. *Even with the proposed driveway, a line of trees on the abutter's property will still block drivers view of the new store until they are directly in front of the driveway. At this point, drivers will have to rapidly decelerate in order to turn into the driveway, potentially causing rear-end accidents on Woodbury Ave.*

   Response: A pylon sign is planned for the entry which will indicate the tenant in advance of the driveway.

4. *The proposed delineators in the median of Woodbury Avenue are not acceptable. They will require ongoing maintenance by the City and will not provide sufficient left turn restriction. If a driveway is constructed at this location, the existing raised median island should be extended to provide a permanent left turn prohibition. As an extension of the median island will cause the shortening of at least one of the left turn lanes on Woodbury Avenue, a traffic analysis should be provided to determine how best to implement the extended median.*

Response: The design has been modified to include a proposed extension of the raised median island. In addition, the Applicant's traffic engineer has prepared a memorandum addressing impacts to the left-hand turn lane.

5. *A traffic analysis should be provided to show the expected usage of the new driveway. Due to the existing volume and speed of traffic on Woodbury Avenue at this location, it is likely that a right-turn lane on Woodbury Avenue would be needed at the driveway.*

   Response: The driveway has been reconfigured to lengthen the distance and provide a slight taper to improve the proposed condition. In addition, the Applicant's traffic engineer has prepared a memorandum addressing the expected usage.

6. *Due to the presence of the abutting bank driveway and the proximity to the signalized intersection with Durgin Lane, a major driveway at this location is not desirable from a traffic safety standpoint.*

   Response: A meeting was held with the Traffic Department to review specific concerns related to the proximity of the adjacent driveways and intersections. The proposed driveway has been reconfigured to address this traffic safety concern.

7. *Truck turning exhibit should be based on Portsmouth Fire Department's Tower 5.*

   Response: A Fire Truck Turning Exhibit based on Portsmouth Fire Department's Tower 5 truck has been provided.

8. *Trucks at loading docks should not have their tractors angled in the truck turning exhibit.*

   Response: An updated truck turning exhibit has been provided for a WB-50 tractor trailer.

9. *The divider island on the proposed driveway should be raised with vertical granite curbing and cobblestone located in the interior.*

   Response: The divider island will be raised and constructed with the materials noted.

10. *To improve the appearance, character and reduce the pervious material on and adjacent the site the parking areas along the proposed driveway should be removed and replaced with trees and other landscaping.*

    Response: The driveway has been reconfigured to remove parking areas and the proposed open areas will be landscaped. Refer to Drawing L-1.

11. *Applicant to provide easements for the existing traffic signal. The signal was built by the developer originally during the Ruby Tuesday construction and an easement should have been provided at that time.*

    Response: A proposed easement will be coordinated with the City and a plan will be prepared and recorded.

12. *The applicant's response letter incorrectly listed the Department's previous comment of replace sidewalk to mean Woodbury Avenue. The sidewalk intended is on Durgin Lane from Woodbury Ave to the entrance Drive at the supermarket building including a safe crossing to the store itself.*

Response: The condition of the existing sidewalk will be evaluated. Deficient areas will be replaced including accessible ramps.

We believe these responses adequately address the City's comments received by email from the Technical Advisory Committee. Refer to the attached exhibits for additional information. Revised plans and documents will be provided to address the comments as described herein.

Please call me if you have any questions at 781-279-0180.

Sincerely,

RJ O'CONNELL & ASSOCIATES

Stephen P. Glowacki
Associate Principal

Cory Mason, PE
Project Engineer

cc: Alicia Busconi (KeyPoint), Rachel Cormier (KeyPoint), Christopher Mulligan, Esq. (Bosen), John Bosen, Esq. (Bosen)

Stephen G. Pernaw & Company, Inc.

P.O. Box 1721 • Concord, NH 03302
tel: (603) 731-8500 • fax: (866) 929-6094 • sgp@ pernaw.com

Transportation: Engineering • Planning • Design

M E M O R A N D U M

Ref: 1995A

To: Alicia Busconi, Vice President
KeyPoint Partners

From: Stephen G. Pernaw, P.E., PTOE

Subject: Traffic Evaluation - Durgin Square
Portsmouth, New Hampshire

Date: January 23, 2020

Background - Pernaw & Company, Inc. has prepared this traffic evaluation on behalf of DPF Durgin Square, the project proponent, in support of their proposal to convert the existing GameStop driveway on Woodbury Avenue from a full-access driveway to a limited-access right-in/right-out driveway for Durgin Square Plaza and to construct a new supermarket.

Development Proposal – The *"Overall Site Plan,"* Sheet OS-1 (see Attachment 1) shows several modifications to the existing plaza, including: 1) replacing the former Shaw's supermarket building with a slightly smaller grocer, 2) razing the GameStop video game retailer building, and 3) converting the full-access GameStop driveway on Woodbury Avenue to a limited-access right-in/right-out driveway. The remainder of the Durgin Square Plaza includes retail space, Aspen Dental, and Qdoba, a fast-casual Mexican restaurant. As a result of the proposed development, the gross floor area of the Durgin Square Plaza will be reduced slightly from 137,725 sf to 134,835 sf.

Site Access - In addition to the full-access driveway at GameStop, Durgin Square Plaza currently has one signal-controlled full-access driveway on the west side of Woodbury Avenue (across from Commerce Way), three unsignalized site driveways on the south side of Durgin Lane (including one service drive at the rear of the site), and one unsignalized driveway that intersects the north side of Arthur Brady Drive.

According to the 2016 report entitled "*Engineering Study - Woodbury Avenue/Market Street Corridor*" prepared by TEC, Inc. for the City of Portsmouth, the majority of southbound vehicles on Woodbury Avenue that are destined for the subject site turn right onto Durgin Lane and then left into the first site driveway. This left-turn movement into the Plaza requires crossing three travel lanes on Durgin Lane, which are subject to vehicle queuing during the red signal phase. The proposed right-in/right-out driveway on Woodbury Avenue will enable southbound drivers to enter the site directly, without impacting Durgin Lane. From an access management standpoint, it is generally preferable to disperse traffic demand by providing alternative access routes, rather than concentrating it.

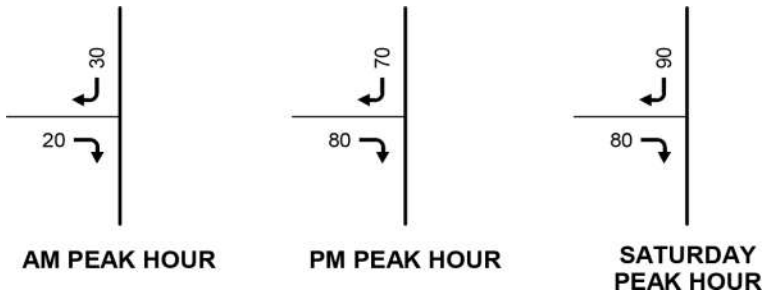
Trip Generation - According to the trip generation equations published by the Institute of Transportation Engineers (ITE)[1] for retail shopping centers, there will be a small reduction in the vehicle-trips generated by the overall site. Table 1 below compares the trip generating characteristics of the existing and proposed shopping center sites (see Attachments 2-3).

Table 1 — Trip Generation Summary

		Existing Development (137,725 sf)	Proposed Development (134,835 sf)	Change
Weekday Total				
	Entering	3,737 veh	3,684 veh	-53 veh
	Exiting	3,737 veh	3,684 veh	-53 veh
	Total	7,474 trips	7,368 trips	-106 trips
Weekday AM Peak Hour				
	Entering	137 veh	136 veh	-1 veh
	Exiting	84 veh	83 veh	-1 veh
	Total	221 trips	219 trips	-2 trips
Weekday PM Peak Hour				
	Entering	331 veh	325 veh	-6 veh
	Exiting	358 veh	353 veh	-5 veh
	Total	689 trips	678 trips	-11 trips
Saturday Total				
	Entering	5,435 veh	5,364 veh	-71 veh
	Exiting	5,435 veh	5,364 veh	-71 veh
	Total	10,870 trips	10,728 trips	-142 trips
Saturday Mid-Day Peak Hour				
	Entering	414 veh	408 veh	-6 veh
	Exiting	383 veh	376 veh	-7 veh
	Total	797 trips	784 trips	-13 trips

[1] ITE Land Use Code 820 - Shopping Center

Driveway Volumes – The post-development traffic projections for the proposed right-in/right-of site driveway on Woodbury Avenue is summarized below schematically:



[1] Institute of Transportation Engineers, *Trip Generation Manual*, 10th edition (Washington, D.C., 2017).

It should be noted that the right-turn entering volume is not critical as this movement encounters no conflicting traffic stream; therefore there is no capacity for this traffic movement and vehicle delays will be nil. The right-turn departure volume is also not critical in that drivers will have the option of exiting the Plaza via the traffic signal at Commerce Way if peak period on-site delays or queuing are undesirable at the proposed right-in/right-out driveway.

Driveway Proximity – The proposed right-in/right-out driveway is located over 210-feet south of Durgin Lane. By way of comparison, the NHDOT *"Policy for the Permitting of Driveways and Other Accesses to the State Highway System"* states that 100-feet is desirable separation in an urban setting (see Attachment 4).

Access Management Considerations – The installation of a channelization island to prevent left-turn maneuvers as shown on Attachment 5 is a standard access management technique that reduces the number of conflict points from nine for a three-leg intersection to two conflict points at a limited-access right-in/right-out driveway. This measure generally improves safety by completely eliminating the crossing conflicts that is associated with left-turn arrivals and left-turn departures.

Nevertheless, our experience has shown that small channelization islands in this application are not always 100% effective at controlling traffic; some prohibited movements will likely occur. For this reason, Pernaw & Company Inc. recommends that consideration be given to extending the existing median island on Woodbury Avenue further south as shown on Attachment 6. The extension of the median island should include the installation of a ONE WAY sign (MUTCD R6-1) on the median facing vehicles exiting from the site. Extending said median island does reduce the storage length of the southbound left-turn bay on Woodbury Avenue for vehicles turning left on to Commerce Way.

Woodbury Avenue SB Left-Turn Queues - The existing left-turn bay on Woodbury Avenue for vehicles turning left onto Commerce Way has a storage length of approximately 300-feet. This is sufficient for approximately 12 vehicles (mixed-fleet) or 15 passenger cars. The "*Engineering Study - Woodbury Avenue/Mark Street Corridor*" prepared by TEC, Inc. for the City of Portsmouth contains the following queue length estimates for the 2027 Future Year w/Improvements case (see Attachments 7-8):

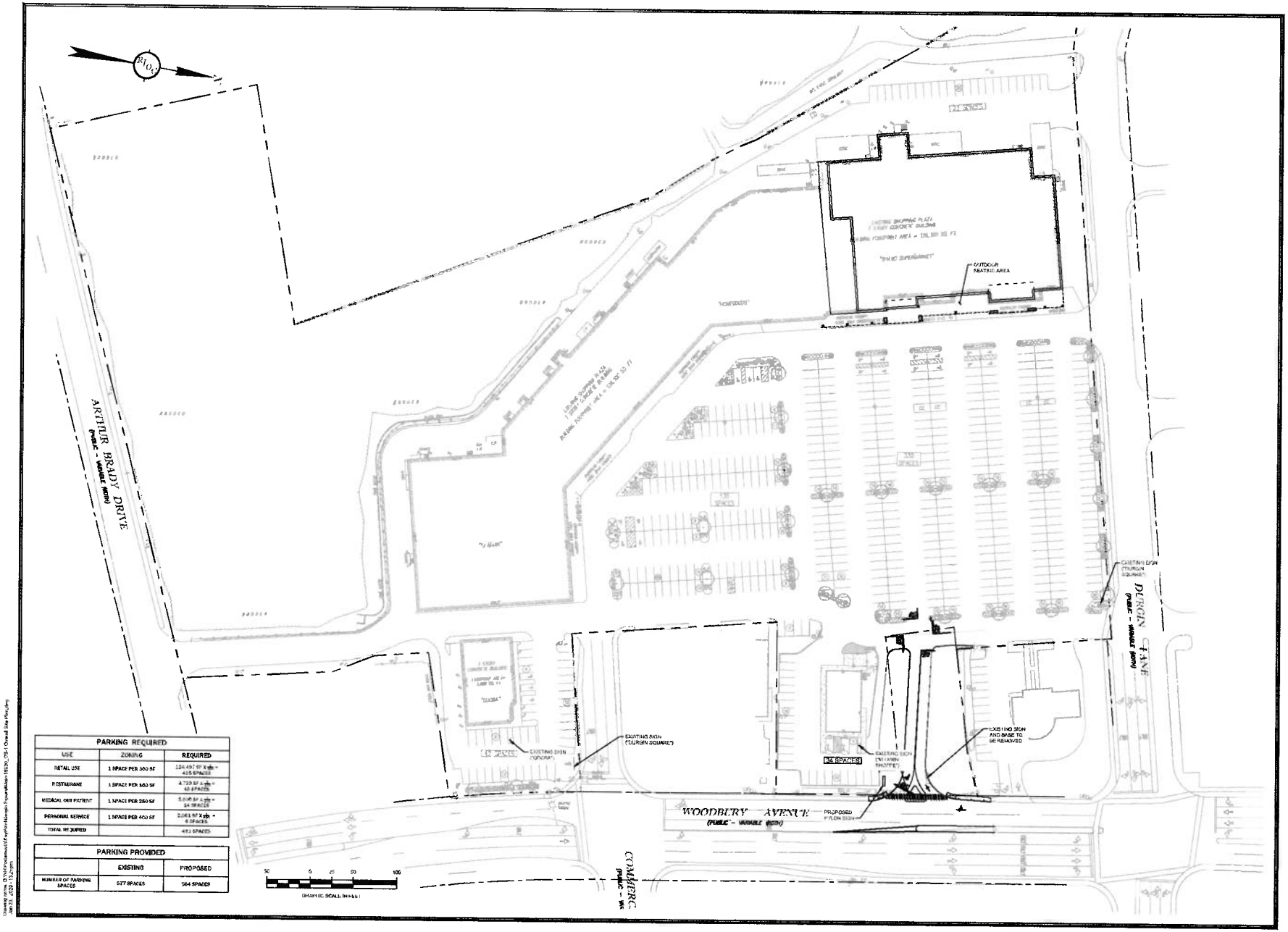
- 2027 AM Peak Hour: 152' (average queue), 184' (95th percentile queue)
- 2027 Midday Peak Hour: 118' (average queue), 169' (95th percentile queue)
- 2027 PM Peak Hour: 53' (average queue), 90' (95th percentile queue)
- 2027 SAT Midday Peak Hour: 60' (average queue), 93' (95th percentile queue)
- 2027 SAT PM Peak Hour: 31' (average queue), 52' (95th percentile queue)

From this, it is reasonable to conclude that the existing median island on Woodbury Avenue can be extended to the subject driveway without interfering with the southbound left-turn movement on to Commerce Way.

Other Access Considerations - The concept of relocating the Federal Savings Bank driveway on Woodbury Avenue to the GameStop frontage was considered and then dismissed for several reasons: 1) KeyPoint Partners does not control that specific parcel, 2) relinquishing their sole-use driveway on Woodbury Avenue in favor of a shared driveway (with easements) would diminish their property value, and 3) there is no incentive for the bank to make any such changes.

To conclude, we find that adding an additional point of access on Woodbury Avenue (for southbound vehicles only) has the potential to lessen the traffic demand on Durgin Lane and will enable drivers to choose their access route depending upon local traffic conditions. Adding an additional egress point will disperse site traffic in a similar fashion. Reducing the number of conflict points at the Woodbury Avenue/GameStop Driveway intersection (from 6 to 2) should result in a net improvement in terms of traffic safety.

ATTACHMENTS



PARKING REQUIRED		
USE	ZONING	REQUIRED
RETAIL USE	1 SPACE PER 300 SF	124,497 SF X 1/300 = 415 SPACES
RESTAURANT	1 SPACE PER 100 SF	4,729 SF X 1/100 = 48 SPACES
MEDICAL OUT PATIENT	1 SPACE PER 250 SF	5,041 SF X 1/250 = 21 SPACES
PERSONAL SERVICE	1 SPACE PER 400 SF	2,061 SF X 1/400 = 6 SPACES
TOTAL REQUIRED		490 SPACES

PARKING PROVIDED		
	EXISTING	PROPOSED
NUMBER OF PARKING SPACES	577 SPACES	564 SPACES

RJOC

NO.	REVISION	DATE
-	ISSUED FOR PLANNING REVIEW	01/23/2020

PREPARED BY
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201, STONEHAM, MA 02180
PHONE: 781.279.1180 rjoconnell.com

PREPARED FOR
KEYPOINT™ PARTNERS
ONE BURLINGTON WOODS DRIVE
BURLINGTON, MA 01803
781-418-5203

PROJECT NAME
DPF DURGIN SQUARE
PORTSMOUTH, NH

SEAL

DESIGNED BY	SPS
DRAWN BY	MCR
REVIEWED BY:	BPD
SCALE	1" = 50'
DATE	01/23/2020

DRAWING NAME
OVERALL SITE PLAN

DRAWING NUMBER
OS-1

PROJECT NUMBER
1603

Copyright © 2020 by R.J. O'Connell & Associates, Inc.

Attachment 1

Drawing name: Q:\NH\Projects\DPF\pf-Durgin Square\Main\1603c_OS-1 Overall Site Plan.dwg
Jan 23, 2020 - 11:24pm

Trip Generation Summary

Alternative: Alternative 1
Phase:
Project: 1995A Proposed

Open Date: 1/23/2020
Analysis Date: 1/23/2020

ITE	Land Use		Saturday Average Daily Trips				Saturday Peak Hour of Generator			
		*	Enter	Exit	Total	*	Enter	Exit	Total
820	CENTERSHOPPING 2 PROPOSED		5364	5363	10727		408	376	784
	134.8 1000 Sq. Ft. GLA								
820	CENTERSHOPPING 1 EXISTING		5435	5434	10869		414	383	797
	137.7 1000 Sq. Ft. GLA								
Unadjusted Volume			10799	10797	21596		822	759	1581
Internal Capture Trips			0	0	0		0	0	0
Pass-By Trips			0	0	0		206	206	412
Volume Added to Adjacent Streets			10799	10797	21596		616	553	1169

Total Saturday Average Daily Trips Internal Capture = 0 Percent
Total Saturday Peak Hour of Generator Internal Capture = 0 Percent

* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition
TRIP GENERATION 10, TRAFFICWARE, LLC

Trip Generation Summary

Alternative: Alternative 1
Phase:
Project: 1995A Proposed

Open Date: 1/23/2020
Analysis Date: 1/23/2020

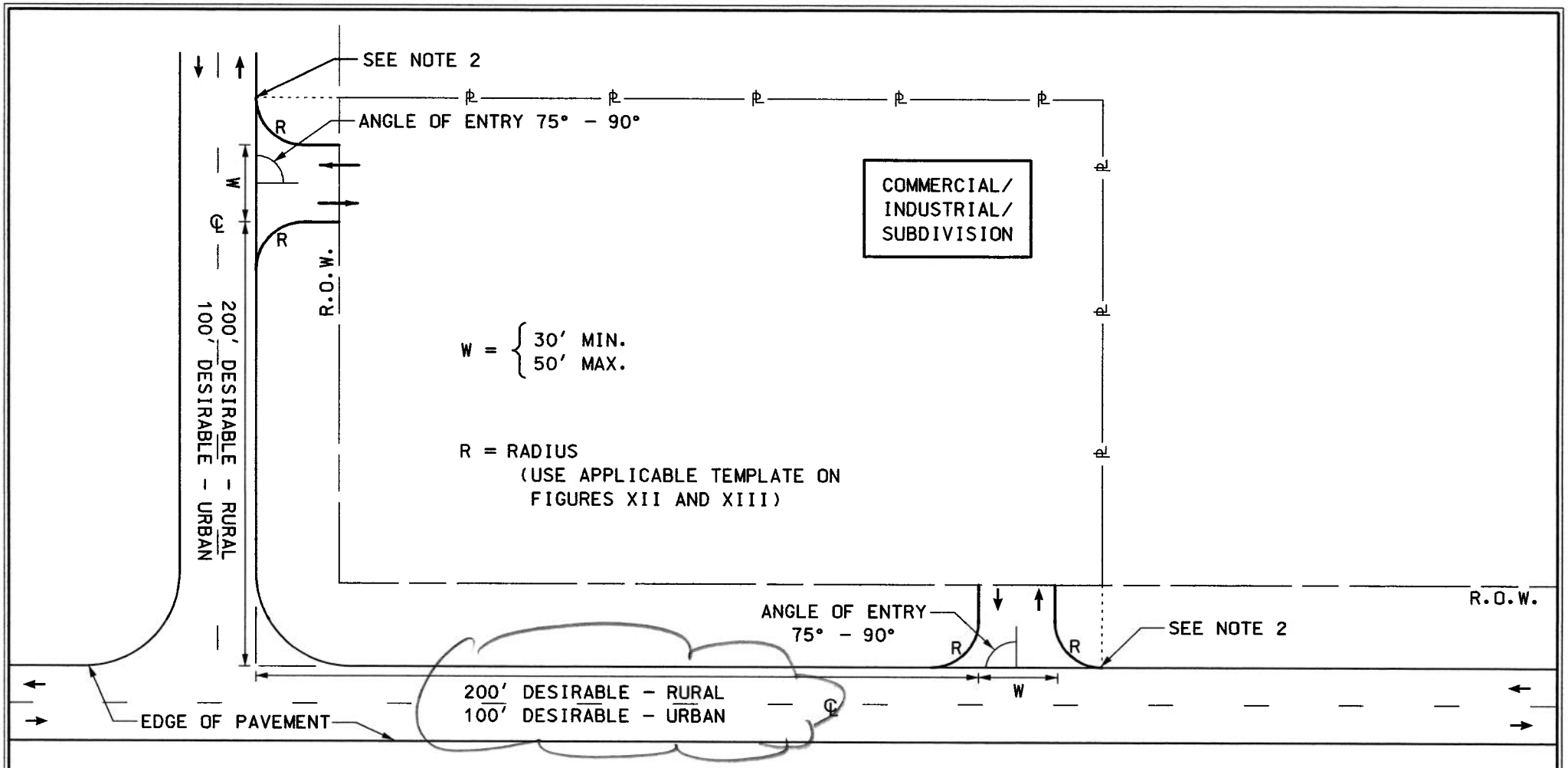
ITE	Land Use		Weekday Average Daily Trips			Weekday AM Peak Hour of Adjacent Street Traffic			Weekday PM Peak Hour of Adjacent Street Traffic		
		*	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
820	CENTERSHOPPING 2 PROPOSED 134.8 1000 Sq. Ft. GLA		3684	3683	7367	136	83	219	325	353	678
820	CENTERSHOPPING 1 EXISTING 137.7 1000 Sq. Ft. GLA		3737	3737	7474	137	84	221	331	358	689
Unadjusted Volume			7421	7420	14841	273	167	440	656	711	1367
Internal Capture Trips			0	0	0	0	0	0	0	0	0
Pass-By Trips			0	0	0	0	0	0	232	232	464
Volume Added to Adjacent Streets			7421	7420	14841	273	167	440	424	479	903

Total Weekday Average Daily Trips Internal Capture = 0 Percent
Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent
Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition
TRIP GENERATION 10, TRAFFICWARE, LLC

Attachment 3



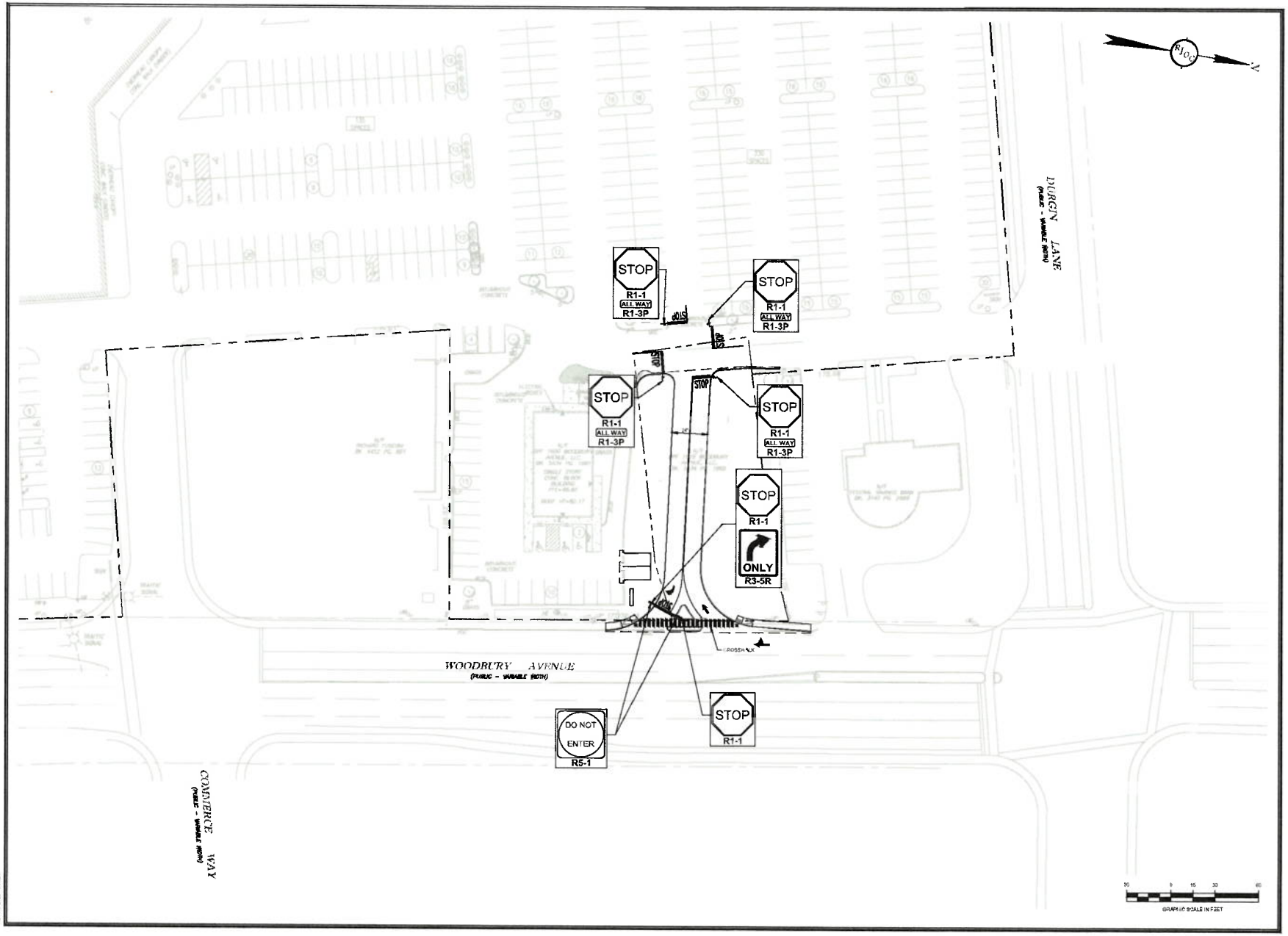
NOTES:
1) CURBING, IF PRESENT COULD BE FLARED TO FIT DRIVE OR END AS SHOWN ON FIGURE IX
2) NO PART OF ANY DRIVE SHALL BE CONSTRUCTED OUTSIDE OF APPLICANT'S FRONTAGE.
3) TOWN ROADS SHOULD BE TREATED AS MAJOR ENTRANCES.
4) WHERE REQUIRED, SEE FIGURES XI AND XII FOR LANE WIDENING

SINGLE DRIVES -- MAJOR ENTRANCE -- RURAL/URBAN

DATE
11/27/2006

DGN
FigureIII

Attachment 4



RJOC

NO.	REVISION	DATE

PREPARED BY
RJO'CONNELL
& ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 2J, STONEHAM, MA 02180
PHONE: TEL. 978.369.1899 RJOCONNELL.COM

PREPARED FOR
KEYPOINT PARTNERS
ONE BURLINGTON WOODS DRIVE
BURLINGTON, MA 01803
781-418-6203

PROJECT NAME
DPF DURGIN SQUARE
PORTSMOUTH, NH

SEAL

PROGRESS PRINT
Jan 17, 2020

DESIGNED BY	SPG/CNM
DRAWN BY	MCR
REVIEWED BY	SPG
SCALE	1" = 30'
DATE	01/17/2020

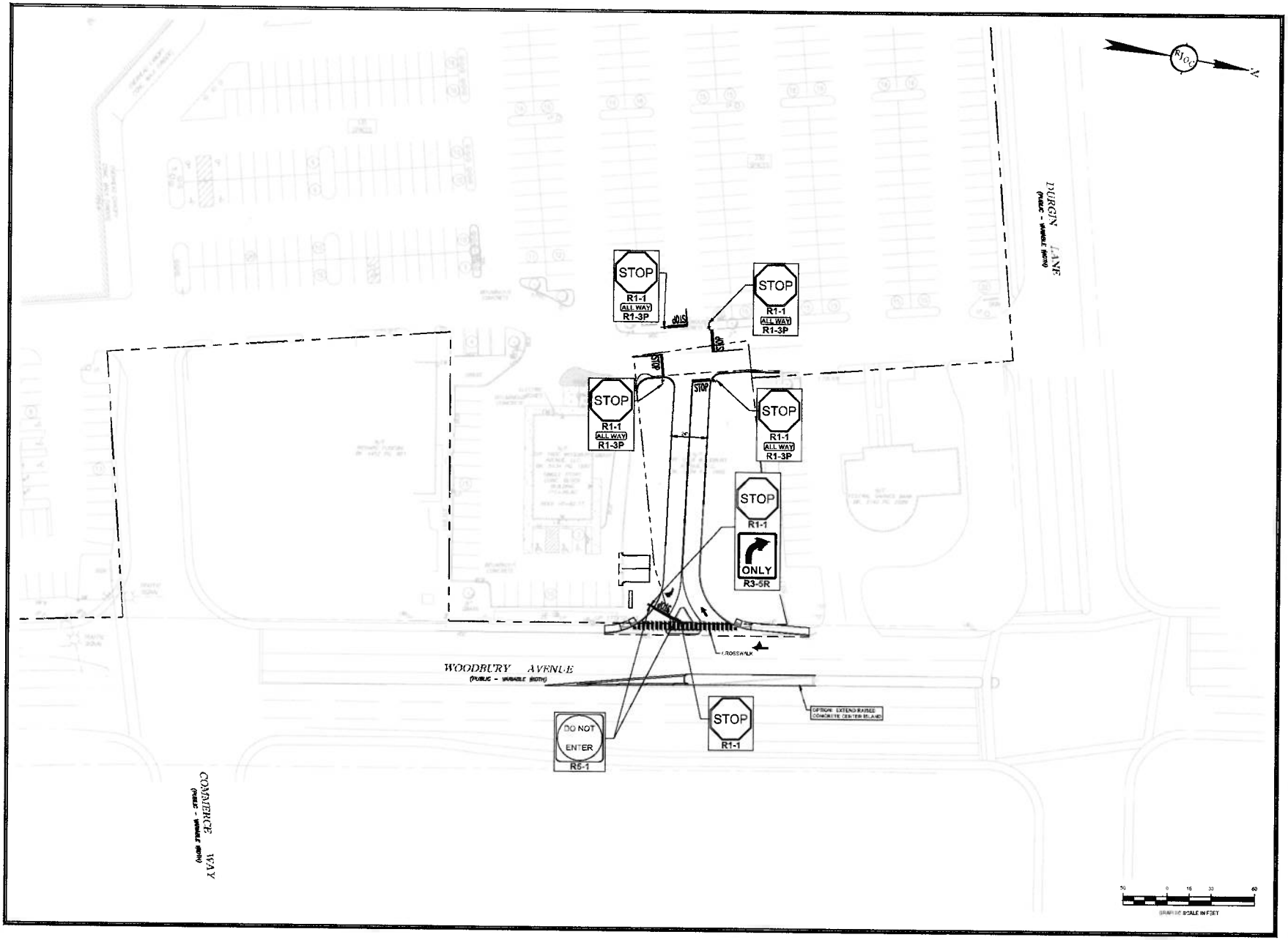
DRAWING NAME
INTERSECTION EXHIBIT

DRAWING NUMBER
EX-E

PROJECT NUMBER
1603

Copyright © 2019 by R.J. O'Connell & Associates, Inc.

Attachment 5



RJOC

NO.	REVISION	DATE

PREPARED BY
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201, STONEHAM, MA 02180
P (781) 279-1180 RJOCONNELL.COM

PREPARED FOR
KEYPOINT PARTNERS
ONE BURLINGTON WOODS DRIVE
BURLINGTON, MA 01803
781-416-6203

PROJECT NAME
DPF DURGIN SQUARE
PORTSMOUTH, NH

SEAL

PROGRESS PRINT
Jan 17, 2020

DESIGNED BY	SPG/CNM
DRAWN BY	MCR
REVIEWED BY	SPG
SCALE	1" = 30'
DATE	01/17/2020

DRAWING NAME
INTERSECTION EXHIBIT - ALTERNATE

DRAWING NUMBER
EX-F

PROJECT NUMBER
1603

Copyright © 2019 by R.J. O'Connell & Associates, Inc.

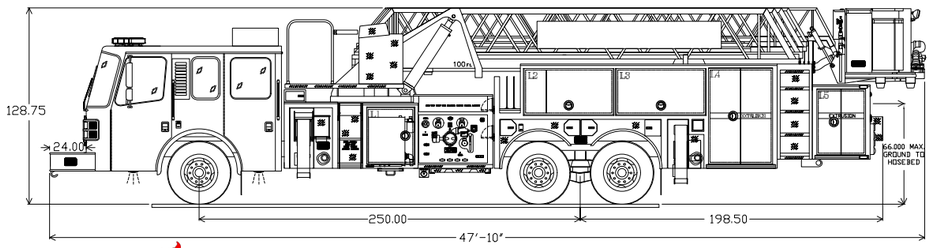
Attachment 6

Table 7 – Intersection Capacity and Queue Analysis Summary [Continued]

Intersection / Lane Group	2015 Base Year				2017 Opening Year w/out Improvements				2017 Opening Year w/ Improvements				2027 Future Year w/out Improvements				2027 Future Year w/ Improvements			
	V/C[a]	Delay[b]	LOS[c]	Queue[d]	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
Woodbury Avenue / Durgin Lane / BJ's Driveway (Continued)																				
Saturday Midday Peak Period																				
Woodbury Avenue EB LT	0.52	41.0	D	59/139	0.52	41.7	D	60/140	0.61	41.7	D	61/90	0.54	44.3	D	65/140	0.61	41.0	D	61/77
Woodbury Avenue EB TH	0.70	25.4	C	250/376	0.71	25.3	C	263/394	0.64	15.8	B	167/207	0.74	26.2	C	310/450	0.71	16.0	B	186/224
Woodbury Avenue EB RT	0.17	9.0	A	<25/55	0.17	8.9	A	<25/56	0.15	9.0	A	<25/<25	0.18	8.7	A	<25/61	0.16	8.4	A	<25/<25
Woodbury Avenue WB LT	0.42	40.4	D	45/109	0.43	41.3	D	45/109	0.50	52.8	D	48/94	0.44	43.6	D	49/109	0.50	51.2	D	49/87
Woodbury Avenue WB TH	0.70	26.1	C	253/370	0.71	26.0	C	265/384	0.63	10.8	B	27/112	0.74	26.9	C	312/438	0.70	13.5	B	65/144
Woodbury Avenue WB RT	0.10	12.6	B	<25/<25	0.10	12.4	B	<25/<25	0.10	12.7	B	<25/<25	0.10	12.1	B	<25/<25	0.10	17.7	B	<25/<25
Durgin Lane NB LT	0.55	41.1	D	72/166	0.56	42.2	D	73/168	0.64	45.5	D	70/132	0.58	45.1	D	80/168	0.64	45.5	D	70/132
Durgin Lane NB LT/TH	0.55	41.0	D	73/170	0.56	42.1	D	75/171	0.64	45.3	D	71/133	0.58	44.8	D	81/171	0.64	45.3	D	71/133
Durgin Lane NB RT	0.16	28.5	C	<25/52	0.17	29.3	C	<25/55	0.14	29.7	C	<25/39	0.20	31.4	C	<25/61	0.14	29.7	C	<25/39
BJ's Driveway SB LT	0.46	40.4	D	51/124	0.46	41.2	D	52/125	0.61	47.0	D	50/113	0.47	43.4	D	56/125	0.61	47.0	D	50/113
BJ's Driveway SB TH/RT	0.45	40.2	D	53/127	0.46	41.0	D	54/129	0.60	46.0	D	52/113	0.47	43.2	D	58/129	0.60	46.0	D	52/113
BJ's Driveway SB RT	0.15	24.3	C	<25/76	0.15	24.9	C	<25/77	0.11	26.0	C	<25/49	0.16	26.7	C	<25/77	0.11	26.0	C	<25/49
Overall Intersection	**0.62**	**26.9**	**C**	-	**0.63**	**27.0**	**C**	-	**0.64**	**20.3**	**C**	-	**0.66**	**28.1**	**C**	-	**0.68**	**21.0**	**C**	-
Saturday Evening Peak Period																				
Woodbury Avenue EB LT	0.40	35.4	D	38/100	0.40	35.8	D	39/101	0.59	36.6	D	37/65	0.42	38.3	D	41/107	0.54	41.8	D	40/63
Woodbury Avenue EB TH	0.69	23.2	C	202/328	0.69	23.3	C	209/338	0.61	28.2	C	246/311	0.71	23.5	C	243/386	0.66	13.5	B	132/164
Woodbury Avenue EB RT	0.14	8.1	A	<25/41	0.14	8.1	A	<25/42	0.11	10.7	B	<25/26	0.14	7.8	A	<25/45	0.11	3.8	A	<25/<25
Woodbury Avenue WB LT	0.29	35.9	D	<25/71	0.29	36.3	D	<25/71	0.37	39.8	D	27/62	0.30	38.7	D	26/75	0.37	26.6	C	26/60
Woodbury Avenue WB TH	0.54	21.6	C	149/252	0.55	21.7	C	157/263	0.47	13.0	B	50/143	0.57	21.5	C	181/295	0.51	26.1	C	185/234
Woodbury Avenue WB RT	0.05	12.1	B	<25/<25	0.05	12.0	B	<25/<25	0.05	42.7	D	<25/<25	0.05	11.6	B	<25/<25	0.05	52.6	D	<25/<25
Durgin Lane NB LT	0.42	34.8	C	46/120	0.43	35.4	D	47/122	0.49	35.5	D	45/92	0.44	37.8	D	50/128	0.49	35.5	D	45/92
Durgin Lane NB LT/TH	0.42	34.8	C	46/120	0.42	35.3	D	47/122	0.48	35.4	D	45/92	0.44	37.8	D	50/128	0.48	35.4	D	45/92
Durgin Lane NB RT	0.08	25.6	C	<25/33	0.09	26.0	C	<25/34	0.12	27.3	C	<25/33	0.12	28.3	C	<25/44	0.12	27.3	C	<25/34
BJ's Driveway SB LT	0.34	35.5	D	30/83	0.34	36.0	D	31/83	0.47	38.0	D	30/65	0.35	38.3	D	33/88	0.52	39.8	D	30/66
BJ's Driveway SB TH/RT	0.33	35.4	D	31/84	0.33	35.9	D	32/85	0.46	37.8	D	30/66	0.34	38.2	D	34/89	0.51	39.2	D	31/67
BJ's Driveway SB RT	0.06	21.1	C	<25/34	0.06	21.4	C	<25/34	0.06	24.1	C	<25/<25	0.06	23.4	C	<25/36	0.06	24.1	C	<25/<25
Overall Intersection	**0.56**	**23.4**	**C**	-	**0.56**	**23.6**	**C**	-	**0.57**	**24.4**	**C**	-	**0.59**	**24.1**	**C**	-	**0.61**	**22.5**	**C**	-
Woodbury Avenue / Commerce Way / Durgin Square																				
Weekday Morning Peak Period																				
Woodbury Avenue EB LT	-	-	-	-	1.24	163.3	F	42/276	0.73	46.7	D	152/182	1.24	163.6	F	43/282	0.73	46.4	D	152/184
Woodbury Avenue EB TH/RT	0.37	5.1	A	<25/119	0.35	8.5	A	<25/132	0.28	1.6	A	<25/<25	0.37	8.5	A	<25/144	0.31	1.8	A	<25/<25
Woodbury Avenue WB LT	0.14	26.1	C	<25/<25	0.15	28.8	C	<25/<25	0.07	57.9	E	<25/<25	0.15	29.2	C	<25/<25	0.07	58.2	E	<25/<25
Woodbury Avenue WB TH/RT	0.20	2.0	A	<25/39	0.41	12.3	B	27/121	0.37	7.2	A	<25/204	0.44	12.4	B	30/133	0.40	7.6	A	<25/220
Durgin Square NB LT/TH	0.04	24.6	C	<25/<25	0.04	26.9	C	<25/<25	0.04	39.4	D	<25/<25	0.04	27.3	C	<25/<25	0.04	39.4	D	<25/<25
Durgin Square NB RT	0.01	17.8	B	<25/<25	0.01	25.4	C	<25/<25	0.01	36.5	D	<25/<25	0.01	25.8	C	<25/<25	0.01	36.5	D	<25/<25
Commerce Way SB LT/TH	-	-	-	-	0.10	26.0	C	<25/<25	0.07	36.8	D	<25/<25	0.10	26.8	C	<25/<25	0.07	36.8	D	<25/<25
Commerce Way SB RT	-	-	-	-	0.03	14.5	B	<25/<25	0.03	18.1	B	<25/<25	0.03	14.8	B	<25/<25	0.03	18.1	B	<25/<25
Overall Intersection	**0.47**	**4.1**	**A**	-	**0.51**	**38.9**	**D**	-	**0.45**	**13.2**	**B**	-	**0.53**	**37.2**	**D**	-	**0.47**	**12.8**	**B**	-
Weekday Midday Peak Period																				
Woodbury Avenue EB LT	-	-	-	-	0.75	51.7	D	86/233	0.68	65.4	E	118/183	0.79	60.4	E	92/244	0.70	65.1	E	118/169
Woodbury Avenue EB TH/RT	0.68	13.4	B	207/304	0.76	22.3	C	278/374	0.71	11.1	B	98/158	0.78	22.6	C	324/428	0.77	12.3	B	98/198
Woodbury Avenue WB LT	0.38	30.6	C	33/86	0.44	38.3	D	44/102	0.49	65.4	E	60/85	0.45	41.0	D	47/106	0.50	65.5	E	60/80
Woodbury Avenue WB TH/RT	0.43	3.7	A	79/109	0.68	21.0	C	235/300	0.67	7.1	A	80/108	0.69	20.7	C	268/338	0.72	7.3	A	82/110
Durgin Square NB LT/TH	0.22	31.3	C	<25/41	0.26	38.7	D	<25/48	0.33	51.0	D	25/50	0.27	41.5	D	<25/49	0.34	51.4	D	25/50
Durgin Square NB RT	0.08	18.5	B	<25/<25	0.08	29.5	C	<25/<25	0.08	39.7	D	<25/<25	0.08	31.9	C	<25/<25	0.08	40.1	D	<25/<25
Commerce Way SB LT/TH	-	-	-	-	0.15	37.2	D	<25/<25	0.10	40.7	D	<25/<25	0.16	39.9	D	<25/<25	0.10	40.6	D	<25/<25
Commerce Way SB RT	-	-	-	-	0.66	31.4	C	138/138	0.62	33.0	C	190/190	0.72	36.8	D	163/163	0.63	33.7	C	198/198
Overall Intersection	**0.68**	**10.3**	**B**	-	**0.75**	**25.6**	**C**	-	**0.72**	**18.7**	**B**	-	**0.78**	**26.7**	**C**	-	**0.76**	**18.8**	**B**	-

Table 7 – Intersection Capacity and Queue Analysis Summary [Continued]

Intersection / Lane Group	2015 Base Year				2017 Opening Year w/out Improvements				2017 Opening Year w/ Improvements				2027 Future Year w/out Improvements				2027 Future Year w/ Improvements			
	V/C[a]	Delay[b]	LOS[c]	Queue[d]	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
Woodbury Avenue / Commerce Way / Durgin Square (Continued)																				
Weekday Evening Peak Period																				
Woodbury Avenue EB LT	0.36	36.1	D	34/90	0.43	37.4	D	43/106	0.57	47.8	D	53/98	0.46	40.0	D	47/106	0.57	46.7	D	53/90
Woodbury Avenue EB TH/RT	0.69	18.0	B	261/371	0.70	18.3	B	268/380	0.69	15.2	B	172/258	0.78	22.2	C	311/436	0.76	18.9	B	209/297
Woodbury Avenue WB LT	0.35	38.3	D	<25/67	0.36	39.1	D	<25/67	0.39	56.6	E	29/44	0.30	39.0	D	<25/67	0.39	56.4	E	29/41
Woodbury Avenue WB TH/RT	0.67	19.2	B	235/313	0.68	19.7	B	242/320	0.64	5.2	A	66/86	0.72	21.2	C	276/363	0.70	5.2	A	70/91
Durgin Square NB LT/TH	0.23	38.1	D	<25/41	0.23	38.9	D	<25/41	0.28	42.5	D	<25/38	0.19	39.1	D	<25/41	0.28	42.5	D	<25/38
Durgin Square NB RT	0.07	31.4	C	<25/28	0.07	32.0	C	<25/28	0.07	35.2	D	<25/<25	0.07	31.3	C	<25/28	0.07	35.2	D	<25/<25
Commerce Way SB LT/TH	0.12	35.3	D	<25/26	0.12	35.6	D	<25/26	0.09	35.2	D	<25/<25	0.12	37.7	D	<25/26	0.09	35.1	D	<25/<25
Commerce Way SB RT	0.19	23.6	C	<25/<25	0.43	26.2	C	65/75	0.51	28.4	C	95/95	0.48	28.8	C	81/86	0.52	28.6	C	101/101
Overall Intersection	**0.58**	**20.6**	**C**	-	**0.66**	**21.5**	**C**	-	**0.67**	**15.8**	**B**	-	**0.70**	**23.9**	**C**	-	**0.72**	**17.0**	**B**	-
Saturday Midday Peak Period																				
Woodbury Avenue EB LT	0.55	40.6	D	49/116	0.61	43.0	D	55/130	0.65	45.3	D	59/100	0.66	51.1	D	60/138	0.65	44.8	D	60/93
Woodbury Avenue EB TH/RT	0.63	17.2	B	234/358	0.64	17.3	B	241/370	0.56	12.7	B	163/181	0.67	18.1	B	281/424	0.61	12.4	B	155/193
Woodbury Avenue WB LT	0.40	35.4	D	44/103	0.40	35.5	D	45/105	0.52	32.5	C	31/48	0.43	39.5	D	48/110	0.52	33.7	C	34/45
Woodbury Avenue WB TH/RT	0.63	16.2	B	262/367	0.64	16.3	B	272/377	0.59	21.4	C	363/419	0.66	16.9	B	313/425	0.63	22.8	C	396/438
Durgin Square NB LT/TH	0.38	38.3	D	27/73	0.38	38.8	D	28/74	0.49	44.3	D	29/67	0.41	43.0	D	30/77	0.52	46.2	D	30/67
Durgin Square NB RT	0.06	27.4	C	<25/30	0.06	27.7	C	<25/31	0.06	32.8	C	<25/28	0.06	31.1	C	<25/33	0.06	33.2	C	<25/28
Commerce Way SB LT/TH	0.09	39.1	D	<25/<25	0.09	39.3	D	<25/<25	0.09	42.2	D	<25/<25	0.07	41.5	D	<25/<25	0.09	42.2	D	<25/<25
Commerce Way SB RT	0.02	26.1	C	<25/<25	0.02	26.2	C	<25/<25	0.02	29.0	C	<25/<25	0.03	28.8	C	<25/<25	0.03	29.1	C	<25/<25
Overall Intersection	**0.56**	**19.3**	**B**	-	**0.57**	**19.5**	**B**	-	**0.56**	**20.2**	**C**	-	**0.59**	**20.7**	**C**	-	**0.60**	**20.5**	**C**	-
Saturday Evening Peak Period																				
Woodbury Avenue EB LT	0.31	33.3	C	23/64	0.33	34.4	C	<25/69	0.47	45.3	D	28/53	0.34	36.5	D	26/72	0.50	48.9	D	31/52
Woodbury Avenue EB TH/RT	0.62	16.3	B	201/301	0.61	16.1	B	206/309	0.55	3.8	A	52/62	0.66	17.5	B	236/351	0.59	4.0	A	45/62
Woodbury Avenue WB LT	0.28	32.0	C	<25/66	0.29	32.9	C	<25/67	0.45	26.4	C	29/54	0.30	35.1	D	25/70	0.48	47.0	D	29/50
Woodbury Avenue WB TH/RT	0.47	14.0	B	147/224	0.47	13.8	B	152/230	0.42	22.1	C	205/251	0.51	14.8	B	172/255	0.46	3.3	A	<25/34
Durgin Square NB LT/TH	0.23	33.9	C	<25/43	0.24	34.9	C	<25/43	0.27	37.1	D	<25/39	0.19	35.2	D	<25/45	0.27	37.1	D	<25/39
Durgin Square NB RT	0.07	25.8	C	<25/26	0.07	26.7	C	<25/26	0.07	30.8	C	<25/<25	0.07	27.4	C	<25/28	0.07	31.0	C	<25/<25
Commerce Way SB LT/TH	0.04	34.7	C	<25/<25	0.04	35.6	D	<25/<25	0.04	36.7	D	<25/<25	0.04	37.6	D	<25/<25	0.04	36.7	D	<25/<25
Commerce Way SB RT	0.02	23.1	C	<25/<25	0.03	23.9	C	<25/<25	0.03	26.7	C	<25/<25	0.03	25.7	C	<25/<25	0.03	26.9	C	<25/<25
Overall Intersection	**0.48**	**17.1**	**B**	-	**0.49**	**17.2**	**B**	-	**0.48**	**14.8**	**B**	-	**0.52**	**18.3**	**B**	-	**0.52**	**8.1**	**A**	-
Woodbury Avenue / Arthur F. Brady / Marshall's Driveway																				
Weekday Morning Peak Period																				
Woodbury Avenue EB LT	0.43	40.6	D	35/75	0.42	40.6	D	35/75	0.12	11.0	B	<25/26	0.42	40.7	D	37/79	0.13	11.5	B	<25/25
Woodbury Avenue EB TH/RT	0.45	17.0	B	153/228	0.34	15.7	B	108/167	0.37	9.3	A	40/48	0.39	17.6	B	123/185	0.41	9.8	A	46/49
Woodbury Avenue WB LT	0.54	40.6	D	64/127	0.55	41.0	D	66/129	0.51	28.6	C	51/101	0.59	42.6	D	74/142	0.54	30.4	C	56/118
Woodbury Avenue WB TH/RT	0.25	13.7	B	81/140	0.27	13.9	B	87/148	0.60	29.6	C	100/143	0.31	15.5	B	98/163	0.61	28.3	C	108/149
Arthur F. Brady Drive NB LT/TH	0.46	43.1	D	31/65	0.46	43.2	D	32/66	0.46	37.8	D	27/56	0.40	41.2	D	34/69	0.49	38.3	D	29/59
Arthur F. Brady Drive NB RT	0.07	25.4	C	<25/<25	0.08	25.4	C	<25/<25	0.08	21.0	C	<25/<25	0.08	24.4	C	<25/<25	0.08	20.7	C	<25/<25
Marshall's Driveway SB LT/TH	0.34	42.8	D	<25/51	0.34	43.0	D	<25/52	0.40	39.6	D	<25/44	0.34	43.3	D	<25/52	0.40	39.6	D	<25/44
Marshall's Driveway SB RT	0.03	27.2	C	<25/<25	0.03	27.3	C	<25/<25	0.03	11.1	B	<25/<25	0.03	27.3	C	<25/<25	0.03	11.8	B	<25/<25
Overall Intersection	**0.45**	**21.1**	**C**	-	**0.39**	**21.2**	**C**	-	**0.47**	**20.2**	**B**	-	**0.42**	**22.3**	**C**	-	**0.50**	**20.2**	**C**	-
Weekday Midday Peak Period																				
Woodbury Avenue EB LT	1.07	122.5	F	215/379	1.07	122.5	F	215/379	0.73	31.1	C	175/353	1.08	124.2	F	215/379	0.81	36.6	D	179/312
Woodbury Avenue EB TH/RT	0.82	35.2	D	360/450	0.75	32.4	C	315/397	0.81	18.7	B	272/488	0.84	37.0	D	370/462	0.95	28.1	C	451/582
Woodbury Avenue WB LT	0.88	72.6	E	151/288	0.89	75.1	E	155/298	0.82	46.1	D	149/293	0.97	92.9	F	172/333	0.82	44.1	D	167/302
Woodbury Avenue WB TH/RT	0.71	31.4	C	299/376	0.65	29.8	C	265/336	0.84	42.8	D	344/432	0.72	32.0	C	305/383	0.87	43.5	D	384/508
Arthur F. Brady Drive NB LT/TH	0.74	56.8	E	109/195	0.74	57.3	E	110/198	0.68	52.4	D	111/176	0.72	59.2	E	116/213	0.70	53.4	D	116/185
Arthur F. Brady Drive NB RT	0.32	27.7	C	52/125	0.34	27.8	C	57/132	0.24	25.9	C	<25/81	0.40	28.4	C	73/156	0.29	25.4	C	35/105
Marshall's Driveway SB LT/TH	0.78	60.8	E	115/214	0.78	60.8	E	115/214	0.71	54.2	D	115/183	0.78	60.6	E	115/214	0.71	54.2	D	115/183
Marshall's Driveway SB RT	0.22	26.2	C	<25/81	0.21	26.1	C	<25/75	0.16	21.1	C	<25/50	0.24	26.5	C	28/91	0.16	22.5	C	<25/50
Overall Intersection	**0.83**	**44.7**	**D**	-	**0.81**	**44.2**	**D**	-	**0.81**	**32.6**	**C**	-	**0.86**	**47.1**	**D**	-	**0.88**	**36.1**	**D**	-



FERRARA
FERRARA FIRE APPARATUS, INCORPORATED
DEMO PLATFORM
2000GPM HALE QMAX PUMP
300 GALLON WATER TANK
100' MID-MOUNT PLATFORM
H-3635

RJOC

N

EXISTING SHOPPING PLAZA
1 STORY CONCRETE BUILDING
BUILDING FOOTPRINT AREA = 126,300 SQ. FT.
"SHAWS SUPERMARKET"

"HOMEGOODS"

"TJ MAXX"

1 STORY
CONCRETE BUILDING
FOOTPRINT AREA=
5,920 SQ. FT.
"QDOBA"

WOODED

BIT. CONC. DRIVEWAY

OVERHEAD CANOPY
CONC. BULK (UNDER)

BLOCK WALL

STAIRS

O.H. L.G.

C.P.

CONC.

ONLY

STOP

SIGN

100 0 50 100 200

GRAPHIC SCALE IN FEET

RJO'CONNELL
& ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS

DATE: 01/23/2020 SCALE: 1"=100'

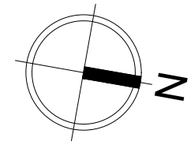
EXHIBIT-G
FIRE TRUCK TURNING EXHIBIT

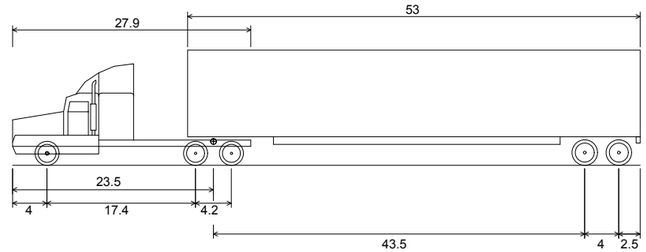
DURGIN SQUARE
PORTSMOUTH, NH

Copyright © 2020 by R.J. O'Connell & Associates, Inc.

Drawing name: G:\NH\Portsmouth\KeyPoint\Durgin Square\Exhibits\Truck Turning Exhibit\16030_Exhibit-G Fire Truck Turning Exhibit.dwg
Jan 23, 2020 - 15:01pm

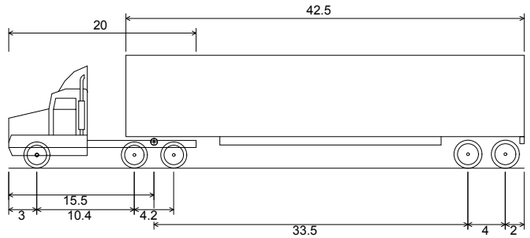
RJOC





WB-67 - Interstate Semi-Trailer

Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°



WB-50 - Intermediate Semi-Trailer

Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.052ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	17.90°

(2) WB-67
WB-50
(2) WB-67
WB-50
WB-67
EXISTING SHOPPING PLAZA
1 STORY CONCRETE BUILDING
BUILDING FOOTPRINT AREA = 126,300 SQ. FT.
"SHAWS SUPERMARKET"
"HOMEGOODS"
"T.J. MAXX"
"QDOBA"
1 STORY CONCRETE BUILDING
FOOTPRINT AREA= 5,920 SQ. FT.
WOODED
BIT. CONC. DRIVEWAY
BLOCK WALL
CHAIN LINK FENCE
OVERHEAD CANOPY CONC. W/LF (UNDER)
OVERHEAD CANOPY CONC. W/LF (UNDER)
SIGN
TRAFFIC SIGNAL
ONLY
STOP

100 0 50 100 200

GRAPHIC SCALE IN FEET

RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS

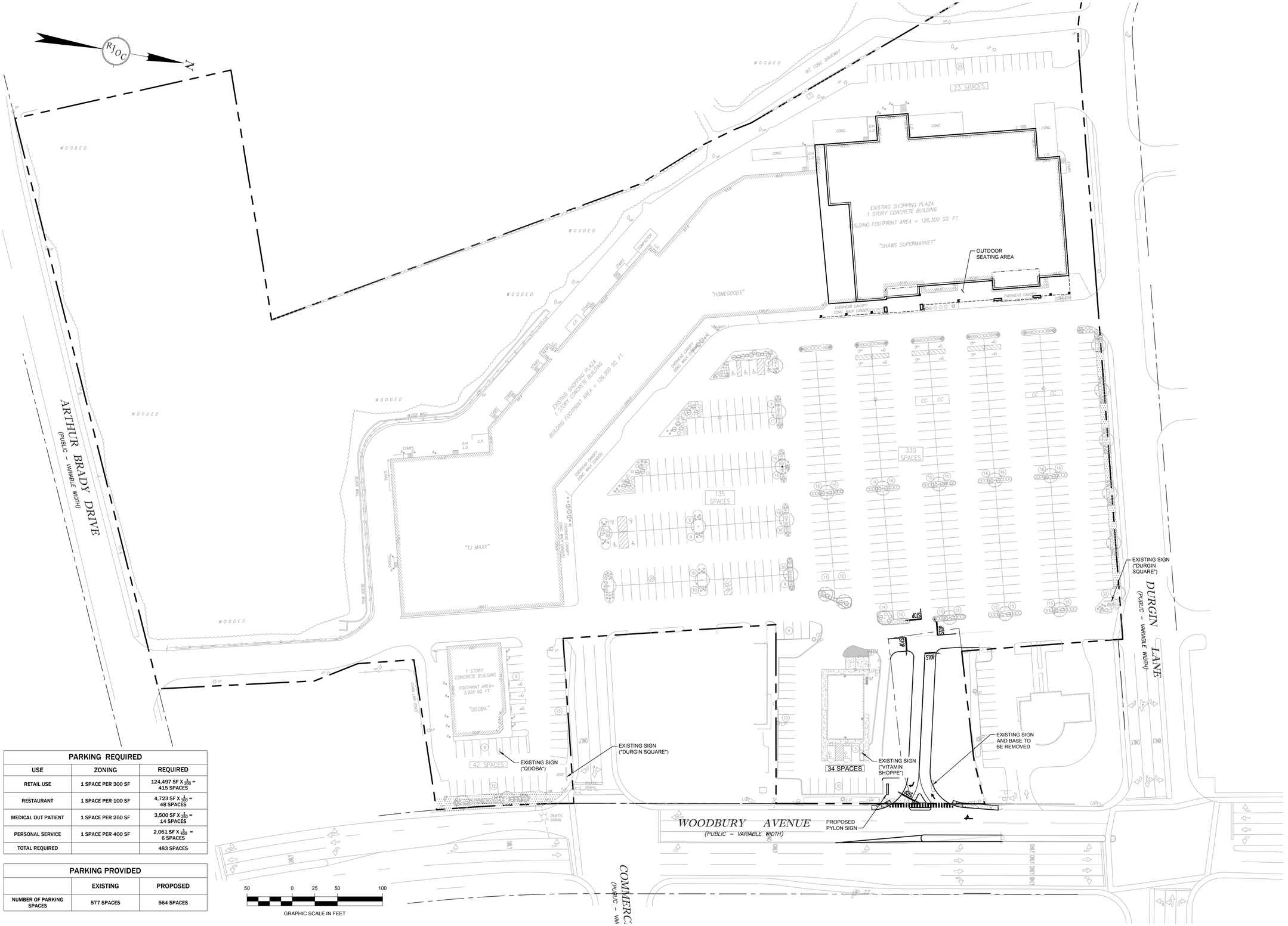
DATE: 01/23/2020 SCALE: 1"=100'

EXHIBIT-C
TRUCK TURNING EXHIBIT

DURGIN SQUARE
PORTSMOUTH, NH

Copyright © 2020 by R.J. O'Connell & Associates, Inc.

Drawing name: G:\NH\Portsmouth\KeyPoint\Durgin Square\Exhibits\Truck Turning Exhibit\16030_Exhibit-C Truck Turning Exhibit.dwg
Jan 23, 2020 - 14:42pm



PARKING REQUIRED		
USE	ZONING	REQUIRED
RETAIL USE	1 SPACE PER 300 SF	124,497 SF X $\frac{1}{300}$ = 415 SPACES
RESTAURANT	1 SPACE PER 100 SF	4,723 SF X $\frac{1}{100}$ = 48 SPACES
MEDICAL OUT PATIENT	1 SPACE PER 250 SF	3,500 SF X $\frac{1}{250}$ = 14 SPACES
PERSONAL SERVICE	1 SPACE PER 400 SF	2,061 SF X $\frac{1}{400}$ = 6 SPACES
TOTAL REQUIRED		483 SPACES

PARKING PROVIDED		
	EXISTING	PROPOSED
NUMBER OF PARKING SPACES	577 SPACES	564 SPACES

Drawing name: G:\NH\Portsmouth\KeyPoint\Durgin Square\Main\16030_OS-1 Overall Site Plan.dwg
Jan 23, 2020 - 1:28pm

RJOC

NO.	REVISION	DATE
-	ISSUED FOR TAC REVIEW	01/23/2020

PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 RJOCONNELL.COM

PREPARED FOR:
KEYPOINT™ PARTNERS
Unlocking Value in Commercial Real Estate
ONE BURLINGTON WOODS DRIVE
BURLINGTON, MA 01803
781-418-6203

PROJECT NAME:

DPF DURGIN SQUARE

PORTSMOUTH, NH

SEAL:

DESIGNED BY:	SPG
DRAWN BY:	MCR
REVIEWED BY:	BPD
SCALE:	1" = 50'
DATE:	01/23/2020

DRAWING NAME:

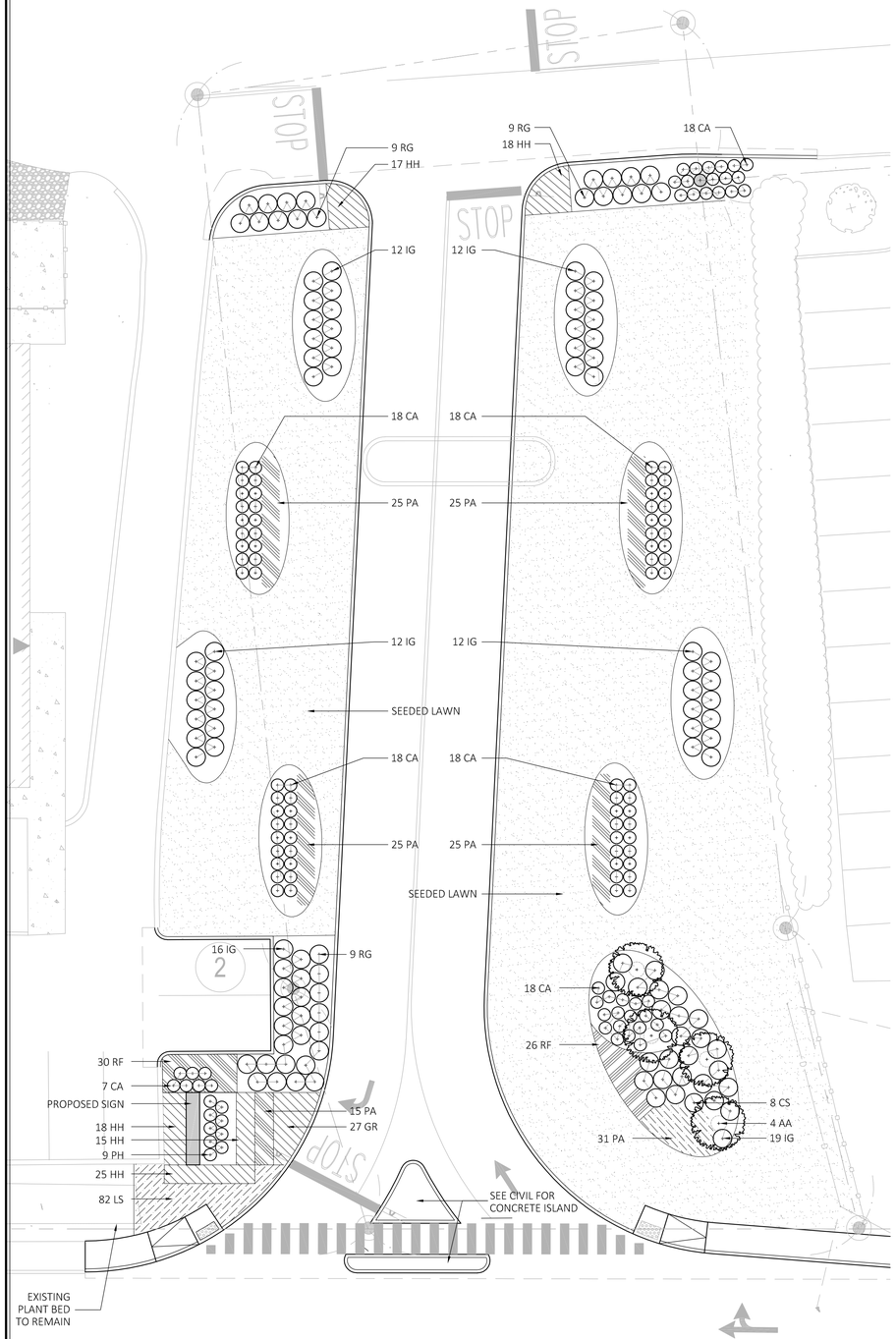
OVERALL SITE PLAN

DRAWING NUMBER:

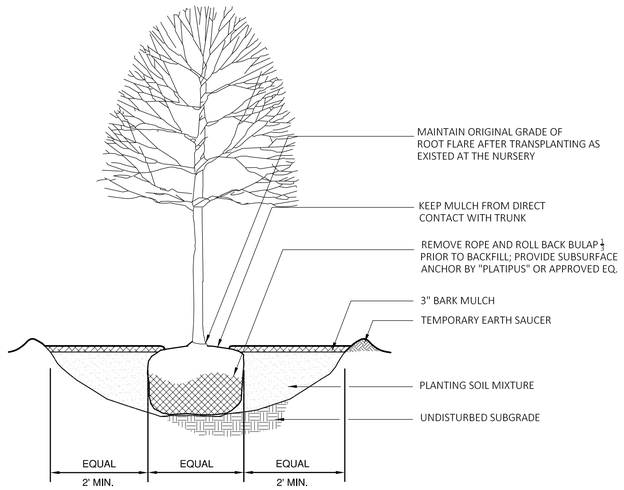
OS-1

PROJECT NUMBER: 16030

Copyright © 2020 by R.J. O'Connell & Associates, Inc.

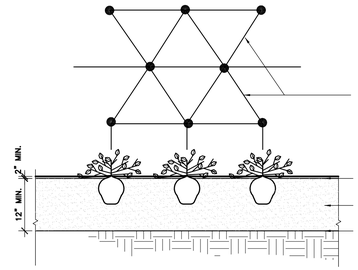


1 LANDSCAPE PLANTING PLAN
SCALE: 1" = 10'-0"

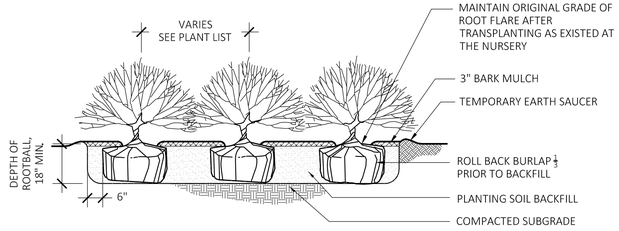


2 DECIDUOUS TREE PLANTING
SCALE: N.T.S.

NOTE: NO IRRIGATION AT THIS TIME



3 GROUNDCOVER PLANTING
SCALE: N.T.S.



4 SHRUB PLANTING
SCALE: N.T.S.

PLANTING:

1. DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
3. LANDSCAPE ARCHITECT APPROVAL IS REQUIRED BEFORE PLANT MATERIAL IS PURCHASED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO SEE ALL MATERIAL IN PERSON AT THE NURSERY. IF TRAVEL OUTSIDE OF MA IS REQUIRED, LANDSCAPE ARCHITECT'S TRAVEL COSTS SHALL BE PAID FOR BY THE CONTRACTOR.
4. ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
5. THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
6. WHERE DISCREPANCIES IN QUANTITIES OCCUR, DRAWINGS SUPERCEDE PLANT NOTES AND SCHEDULE.
7. TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
8. LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
9. MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
10. LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
11. SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUNDCOVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6"MIN.
12. PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS, SIZE FOR CALIPER

PLANT SCHEDULE					
SYMBOL	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
TREES					
AA	4	AMELANCHIER X. 'AUTUMN BRILLIANCE'	SERVICEBERRY	6'-7' HT.	B&B, MULTI-STEM, SPECIMEN
SHRUBS AND GROUNDCOVER					
RG	27	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	3 GAL	36" O.C.
IG	83	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	5 GAL	36" O.C.
CS	8	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE DOGWOOD	5 GAL	36" O.C.
PERENNIALS					
CA	115	CALAMAGROSTIS A. 'KARL FOERSTER'	KARL FOERSTER SWITCH GRASS	1 GAL	24" O.C. CONTAINER
GR	27	GERANIUM ROZANNE	ROZANNE GERANIUM	1 GAL	18" O.C. CONTAINER
HH	93	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURN DAYLILLYS	1 GAL	18" O.C. CONTAINER
LS	82	LIRIOPE SPICATA	CREEPING LIRIOPE	1 GAL	15" O.C. CONTAINER
PH	9	PENNISETUM A. 'HAMELN'	HAMELN FOUNTAIN GRASS	2 GAL	24" O.C. CONTAINER
PA	146	PEROVSKIA A. 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	1 GAL	24" O.C. CONTAINER
RF	56	RUDBECKIA FULGIDA 'GOLDSTURM'	BLACK EYE SUSAN	1 GAL	18" O.C. CONTAINER

SCALE: 1" = 10'-0"
20' 10' 5' 2.5' 0 10' 20'

RJOC

NO.	REVISION	DATE
	ISSUED FOR TAC REVIEW	01/23/2020

PREPARED BY:
MDLA
MICHAEL D'ANGELO LANDSCAPE ARCHITECTURE LLC
732 EAST BROADWAY
BOSTON, MA 02127
203-592-4788

PREPARED FOR:
KEYPOINT PARTNERS
Unlocking Value in Commercial Real Estate
ONE BURLINGTON WOODS DRIVE
BURLINGTON, MA 01803
781-418-6203

PROJECT NAME:

DPF DURGIN SQUARE
PORTSMOUTH, NH

SEAL:

PROGRESS PRINT

DESIGNED BY:	MD
DRAWN BY:	MD
REVIEWED BY:	MD
SCALE:	1"=10'-0"
DATE:	01/23/2020

DRAWING NAME:

PLANTING PLAN

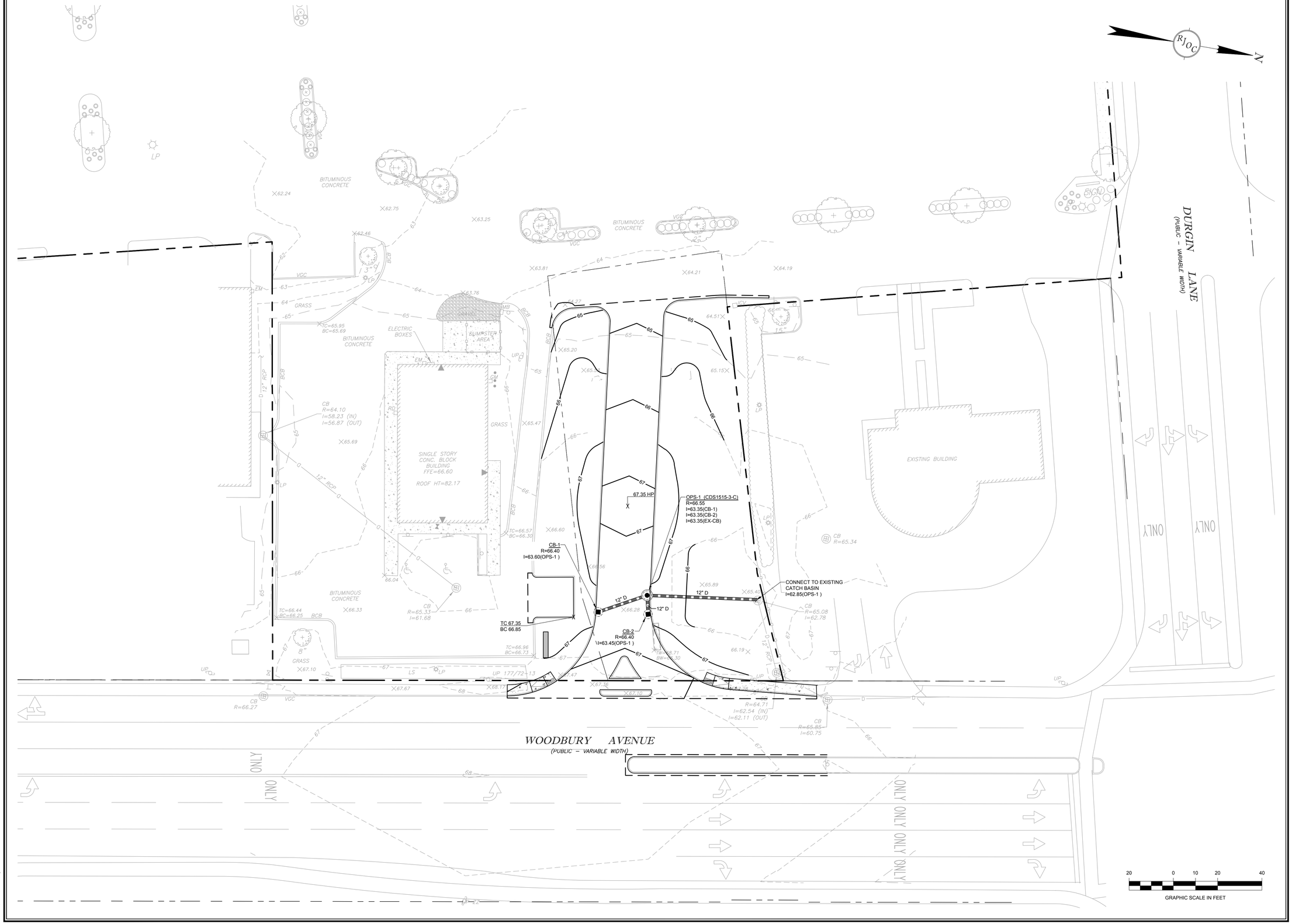
DRAWING NUMBER:

L-1

PROJECT NUMBER:

16030

Copyright © 2019 by R.J. O'Connell & Associates, Inc.



Drawing name: G:\NH\Portsmouth\KeyPoint\Durgin Square\Main\16030_C-2 Grading and Drainage Plan.dwg
Jan 23, 2020 - 12:21pm

RJOC

NO.	REVISION	DATE
-	ISSUED FOR TAC REVIEW	01/23/2020
	REVISION	

PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 · RJOCONNELL.COM

PREPARED FOR:
KEYPOINT™ PARTNERS
Unlocking Value in Commercial Real Estate
ONE BURLINGTON WOODS DRIVE
BURLINGTON, MA 01803
781-418-6203

PROJECT NAME:

DPF DURGIN SQUARE
PORTSMOUTH, NH

SEAL:

DESIGNED BY:	CNM
DRAWN BY:	CNM
REVIEWED BY:	BPD
SCALE:	1" = 20'
DATE:	01/23/2020

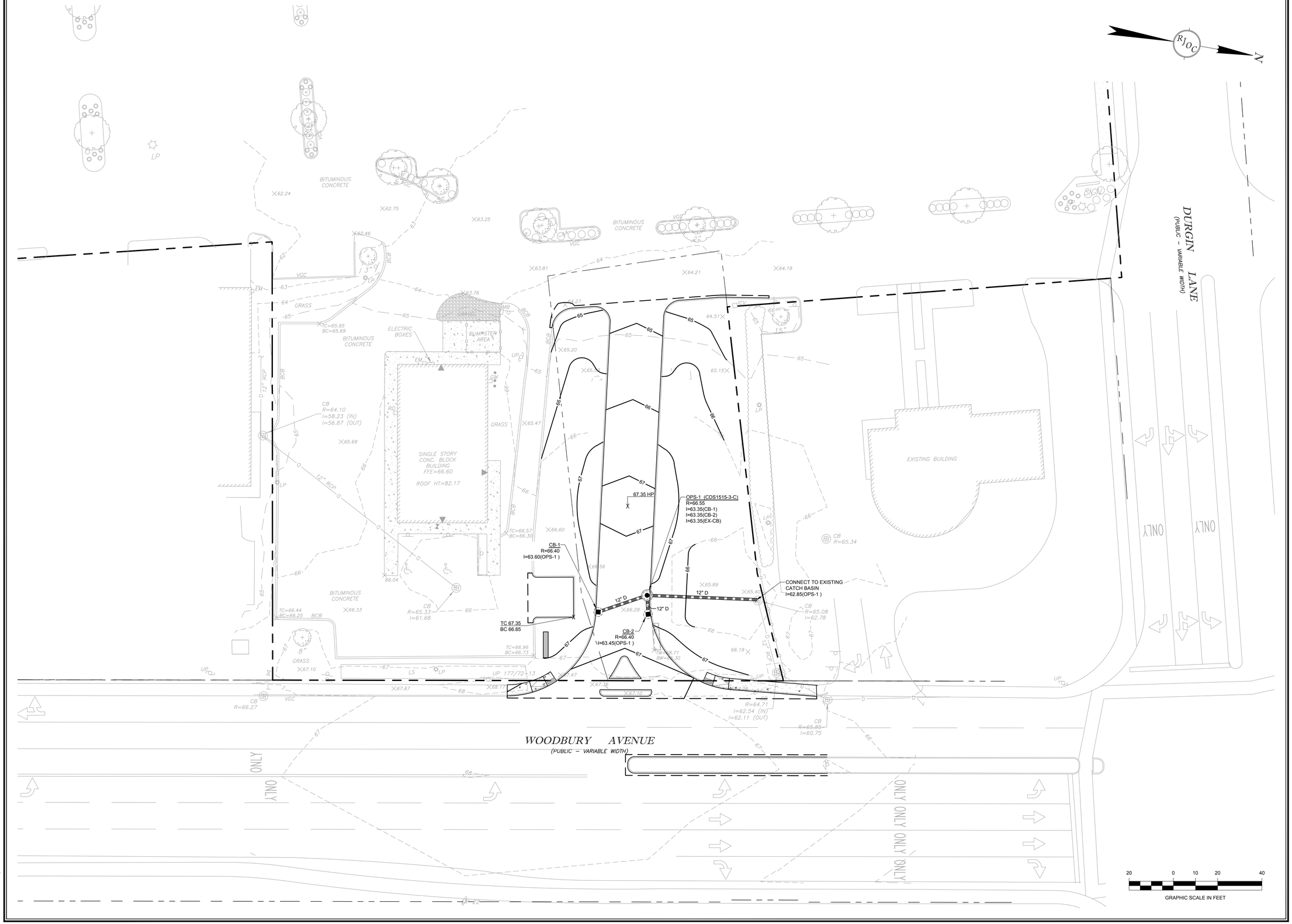
DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:
C-2

PROJECT NUMBER:
16030

Copyright © 2019 by R.J. O'Connell & Associates, Inc.



Drawing name: G:\NH\Portsmouth\KeyPoint\Durgin Square\Main\16030_C-2 Grading and Drainage Plan.dwg
Jan 23, 2020 - 12:21pm

RJOC

NO.	REVISION	DATE
-	ISSUED FOR TAC REVIEW	01/23/2020
	REVISION	

PREPARED BY:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180
PHONE: 781.279.0180 · RJOCONNELL.COM

PREPARED FOR:
KEYPOINT™ PARTNERS
Unlocking Value in Commercial Real Estate
ONE BURLINGTON WOODS DRIVE
BURLINGTON, MA 01803
781-418-6203

PROJECT NAME:

DPF DURGIN SQUARE
PORTSMOUTH, NH

SEAL:

DESIGNED BY:	CNM
DRAWN BY:	CNM
REVIEWED BY:	BPD
SCALE:	1" = 20'
DATE:	01/23/2020

DRAWING NAME:

GRADING AND DRAINAGE PLAN

DRAWING NUMBER:
C-2

PROJECT NUMBER:
16030

Copyright © 2019 by R.J. O'Connell & Associates, Inc.