#### STATE OF NEW HAMPSHIRE

#### SITE EVALUATION COMMITTEE

**Docket No. 2015-06** 

Joint Application of Northern Pass Transmission, LLC and Public Service Company of New Hampshire d/b/a Eversource Energy for a Certificate of Site and Facility

### PREFILED DIRECT TESTIMONY OF EDWARD L. ROBERGE, P.E., CITY ENGINEER

November 15, 2016

#### **Background and Qualifications**

- 2 Q. Please state your name and work address.
- A. My name is Edward L. Roberge. My work address is 41 Green Street, Concord,
- 4 New Hampshire 03301.

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- 5 Q. Please describe your employment at the City of Concord?
- A. I am the City Engineer. I have held this position for 11 years. My
- 7 responsibilities are to manage the Engineering Services Division of the Community
- 8 Development Department, including private development projects, capital projects, and traffic
- 9 and transportation programs.
- 10 Q. What is your professional background and experience?
- 11 A. I received a Bachelor of Science Degree in Civil Engineering from Northeastern
- 12 University in 1995. I was licensed as a Professional Engineer in the State of New Hampshire in
- 13 1999. I have over thirty (30) years of professional experience primary focused within municipal
- public works and engineering.

#### **Purpose of Testimony**

- O. What is the purpose of this prefiled direct testimony?
- 17 A. The purpose of this prefiled testimony is to address the City's concerns with the
- proposed access roads along public highways.

#### **Authority for Regulating Highway Use by Abutting Property Owners**

2	Q. What is the City's authority for regulating highway use by abutting property
3	owners, specifically with regard to access roads?
4	A. The City may control how private roads and driveways are connected to local,
5	public highways. RSA 236:13. The planning board may enact regulations that address a number
6	of subjects, such as: width, angles, slopes and grades of connections, curbs, ditching, and culvert
7	standards to prevent erosion and preserve highway drainage, adequate lines of sight to prevent
8	safety hazards, and limiting the number of accesses per parcel. The statute provides that a
9	planning board may delegate the day-to-day administration of driveway regulations, including
10	driveway applications, to a highway agent or other qualified official or body.
11	Q. What are the requirements for driveways and other permanent accesses to
12	the public highways in the City of Concord?
13	A. For permanent driveways and other accesses, there are requirements set forth in
14	the City of Concord Construction Standards, the City of Concord Rural or Urban Driveway
15	Details, the City of Concord Zoning Ordinance, and the City of Concord Code of Ordinances.
16	Q. What are the requirements for new driveways and other permanent
17	driveways set forth in the Zoning Ordinance?
18	A. The City of Concord Zoning Ordinance, Section 28-7-8 states as follows:
19	28-7-8 - Access and Driveway Standards.
20	(a) Restrictions on Backing Into a Street. Except in connection with single-family
21	detached dwellings and two-family dwellings, parking areas shall be designed so that,

without resorting to extraordinary movements, vehicles may enter and exit the parking area without backing within or into a street, and without inhibiting pedestrian safety. Parking spaces for each dwelling unit in a duplex or two-family dwelling shall be independently accessible from a street. (b) Separation of Driveways in Residential Districts. For all streets in residential districts, driveways entering such streets shall be located at least thirty (30) feet from street intersections, and at least forty (40) feet from other existing driveways on the same lot or an adjacent lot. One driveway is permitted for lots with up to one hundred (100) feet of lot frontage. One additional driveway is permitted for each additional one hundred fifty (150) feet of lot frontage. Where compliance cannot be achieved with these standards, the Planning Board may grant a conditional use permit pursuant to Section 28-7-11, Alternative Parking Arrangements, of this ordinance. (c) Separation of Driveways in Nonresidential Districts. Except as may be otherwise provided in Performance Districts, and except where a conditional use permit has been granted by the Planning Board pursuant to Section 28-7-11, Alternative Parking Arrangements, of this ordinance, the following standards are established in nonresidential districts: (1) For all local streets, driveways entering such streets shall be located at least one hundred twenty-five (125) feet from street intersections, and at least one hundred (100) feet from other existing driveways on the same lot or an adjacent lot. One driveway is permitted per lot for lots with up to one hundred fifty (150) feet of lot frontage. One

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1 additional driveway is permitted for each additional one hundred fifty (150) feet of lot 2 frontage. 3 (2) For all collector and arterial streets, driveways entering such streets shall be located 4 at least two hundred (200) feet from street intersections, and at least two hundred (200) 5 feet from other existing driveways on the same lot or an adjacent lot. One driveway is 6 permitted per lot for lots with up to three hundred fifty (350) feet of lot frontage. One 7 additional driveway is permitted for each additional three hundred fifty (350) feet of lot 8 frontage. 9 (d) Separation of Median Openings. Except as may be otherwise provided in 10 Performance Districts, there shall be a minimum distance of five hundred (500) feet 11 between openings in a median, where medians exist or are established on collector or 12 arterial streets. 13 (e) Measurement of Separations. The separation between public street intersections and 14 driveways is measured from the point of intersection of the nearest edge of each of the 15 street rights-of-way to the nearest edge of the driveway where it intersects with the right-16 of-way line. The separation between driveways is measured from the nearest edge of 17 each driveway where it intersects with the street right-of-way. The separation between 18 median openings is measured from centerline to centerline of each opening.

1	Q. Is a property owner or contractor required to obtain a driveway on
2	residential or commercial property?
3	A. Yes. The City of Concord Ordinance, Section 5-1-8 requires an application for a
4	permit "to repair, widen, reconstruct, or construct a driveway on residential or commercial
5	property, to ensure conformance with the City of Concord's zoning laws pertaining to driveway
6	locations." The Ordinance also states that "residential driveways shall be a minimum of five
7	(5) feet from abutting property line, forty (40) feet from nearest adjacent driveway, and thirty
8	(30) feet from street intersections according to the present Zoning Ordinance. Commercial
9	driveways shall be in conformance with approved plans by the Engineering Services and
10	Community Planning Divisions of the Community Development Department."
11	A copy of the driveway permit is attached as Exhibit A. The details for construction of
12	new permanent driveways are attached as Exhibit B. These details include requirements for
13	driveways in both urban and rural settings.
14	Q. Do the access roads in the plans submitted for the proposed Northern Pass
15	Project comply with the City of Concord's driveway and access requirements?
16	A. No. To the extent that Northern Pass intends for the access roads to be
17	permanent, they do not comply with the City of Concord's requirements due to (1) the width of
18	the access roads (exceeds 28 feet); (2) the separation from driveways and/or intersections that do
19	not meet the Zoning Ordinance because the distance is insufficient; and (3) the insufficient
20	frontage of the parcels being accessed by many of the proposed access roads.

## Q. What are the requirements for temporary access roads to the public highways in the City of Concord?

- A. The City of Concord reviews temporary access roads to the public highways on a case by case basis. While we generally apply the requirements of a permanent driveway, we consider factors such as requirements for access, work area, type of equipment using the public roads, construction schedules, construction area warning signs, and traffic control. Temporary access roads may require the removal and replacement of curbing or other structures which would then require a street excavation or encumbrance permit.
- Q. Are there other requirements that the City of Concord's Engineering

  Services Division oversees for which the Northern Pass Project must comply or address?
- A. Other factors that are considered by the Engineering Services Division include review of construction standards and details to prevent tracking of debris onto public roads, the placement of a financial surety or guarantee to ensure that the condition of the public road from which access is granted will be repaired if any damage occurs during the project, adherence to the springtime road posting requirements, reducing the number of access points to minimize road cuts, ensuring existing drainage runoff paths are maintained and not changed, trucks entering from and exiting onto major arterial and collector roads, potential for access by the public for unauthorized use of the space or illegal dumping, and review of any commitments for protecting environmentally sensitive or archeologically sensitive areas.

Prefiled Testimony of Edward L. Roberge, P.E.

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- 1 Q. To the extent that the access roads are temporary, what concerns do you
- 2 have about use of the access roads after construction is completed?
- A. There is a concern that in the event the access roads are not property restored
- 4 through revegetation, regrading, or placement of fencing or barrier, there will be unauthorized
- 5 and unanticipated use of the access roads by the public.
- 6 **Q.** Does this end your testimony?
- 7 A. Yes.

## EXHIBIT A

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#### City of Concord, NH

Engineering Services Division City Hall, 41 Green Street Concord, NH 03301 Tel: (603) 225-8520

Fax: (603) 230-3630

engineering@concordnh.gov

#### **Driveway Permit Application**

Minimum of Three (3) Working Days Required for Approval

Applicant: Fill out sections 1 – 4 only	City Use
Applicant's Name	Permit #:
Applicant's Name:	Approved By:
ddress:	
ity/State/Zip:	_ Approval Date:  Expiration Date: 1 YEAR FROM APPROVAL
hone:	
ontractor: Phone:	
ddress:	
ity/State/Zip:	
mail:	
	Other Conditions:
cheduled Start Date: Complete :	
New Driveway	-
Existing Driveway: Overlay Only	
☐ Existing Driveway: Remove and Replace	
☐ Existing Driveway with alterations to City right-of-way	
☐ Existing Driveway with alterations to only right of way ☐ Existing Driveway with alterations on private property	Fees:
Driveway culvert: Size Type	☐ New Permit ☐ Renewal
	Administration and Application Fee: \$ 75.00
	(Non-Refundable)
Location of Driveway(Street Address)	
(Street Address)	
Give a brief description of any alterations on private property.	Sub-total \$
	Previous Payments \$
	Total Due: \$
	Date Paid:
Sive a brief description of any alterations to city right-of-way.	Form of Payment
	Receipt # :
	11000ipt # .
	Final Approval:
	Date:
By undersigning this application, the Applicant acknowledges that he/shof Code of Ordinances, Title 1, General Code, Chapter 5, Public Works Section 5-1-8 and to any other ordinances, special conditions, restriction Services Division.	, Article 5-1, Highway and Sidewalks – Ordinance No. 2577
Applicant's Signature:	Date:
ipplicants dignature.	Date

The Engineering Services Division shall be notified 48 hours in advance of all driveway construction adjacent to the City right-of-way (225-8520). Approval of this application allows only that work specifically described in the application, any changes will require the review and approval of the City Engineer prior to implementing the changes. Applicant must comply with, and the permit will be subject to, the conditions attached. Driveway Permit is not valid without authorized signature by Community Development Department Representative and assigned a permit number.

The driveway shall be built in accordance with the City of Concord Construction Standards, the City of Concord Rural or Urban Driveway Details, the City of Concord Zoning Ordinance, the City of Concord Code of Ordinances, the attached sketch, and any plans approved by the City Planning Board or Community Development Department. The construction will not extend beyond the roadway gutter line so as to interfere with highway drainage. The construction will not result in any sudden drops or grading which may be hazardous to pedestrians. Driveway culverts will be installed when specifically required. All future maintenance and replacement of culverts and driveways will be the responsibility of the private property owner to which the driveway serves.

A detailed and dimensioned scale drawing depicting the work shall be attached to this permit in the space provided below. The sketch shall include the distance along the right-of-way frontage to all property lines (5 ft min. for residential drives), to all adjacent driveways (40 ft min. for residential drives), and to any street intersections (30 ft min. for residential drives). It shall also include the driveway width (28 ft max. curb cut for residential driveways), the grading as it relates to the City street and the size, location, and type of material of any proposed culverts. Proposed driveway centerline location shall be staked in the field prior to permit approval.

An analysis of driveway site distance shall be required at City Engineer's discretion. The analysis shall be as set forth in the NH Department of Transportation (NHDOT) Rules for the Permitting of Drives and Entrances to Highways and the AASHTO Policy for the Geometric Design of Highways and Streets. A minimum sight distance of 200 feet shall be provided for all driveways.

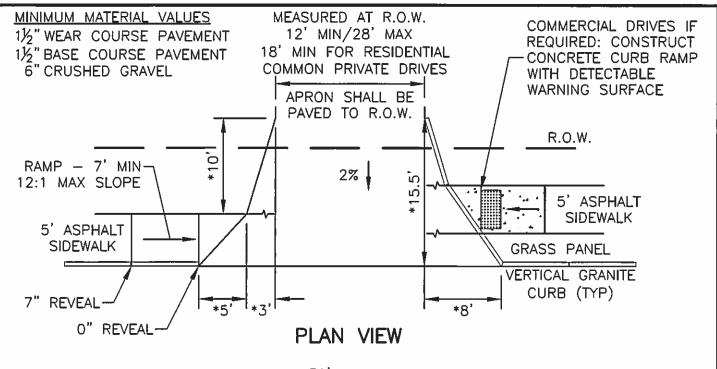
Furthermore, this permit is subject to the following conditions:

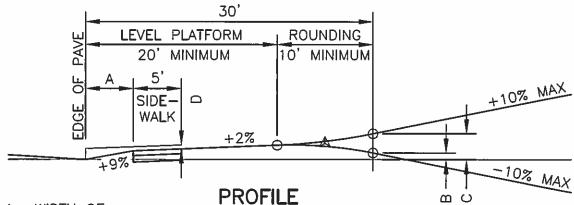
- 1. The Engineering Services Division may revoke the permit at any time.
- 2. The Engineering Services Division may include additional conditions and requirements to this permit as listed below.
- 3. Should proposed construction work affect existing sidewalks, roadways, and parking spaces an Encumbrance Permit issued by the Engineering Services Division may also be required. Encumbrances or obstructions shall at all times be properly guarded, barricaded, or fenced during the time the highway is encumbered or obstructed. Safety equipment and lighting shall be maintained, as necessary, throughout the night so that all encumbrances or obstructions may be readily seen.
- 4. All curbing removed from the public right-of-way shall be salvaged for use by the City of Concord General Services Department (228-2737).
- 5. The applicant hereby agrees to indemnify and hold harmless the City of Concord, NH from all claims for damage or injury whatsoever that may arise from the encumbrance, obstruction, occupation, or use of said highway. The applicant shall be accountable for all damages that may occur on account of said encumbrance, obstruction, occupation, or use of the aforesaid highway. The City of Concord in no case assumes any responsibility or liability by reason of this permit.
- 6. All highway components and roadside features, including shade trees (disturbance of tree roots shall be allowed), shall be left in as good a condition of repair and cleanliness at the expiration of the permit as existed when said permit was granted. Further, the City Engineer reserves the right to restore the highway or cause the same to be restored under his/her direction, and the Permitee to whom this permit is granted shall reimburse the City for any and all liability and expense suffered by reason of such work.
- 7. This permit shall expire upon completion of the work in a manner satisfactory to the City Engineer or at the end of one year, whichever occurs first.
- 8. A financial guarantee shall be provided to the City of Concord, should work required by this permit not be constructed prior to issuance of a Certificate of Occupancy for new structures. Financial guarantee shall be released once work is performed to the City's satisfaction.

#### Sketch Plan

(Provide location and dimension details of driveway)

## EXHIBIT B





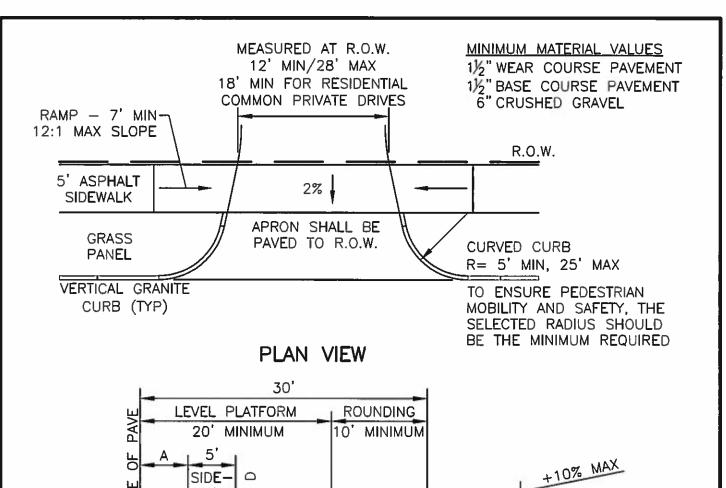
- A -WIDTH OF GRASS PANEL
- B -VERTICAL OFFSET AT 30' FOR DRIVES IN FILL
- C -VERTICAL OFFSET AT 30' FOR DRIVES IN CUT
- D -VERTICAL DROP OF SIDEWALK

	VERTICA	L CURB	
Α	В	С	D
0	0	1'-0"	7"
1'	3/4"	1'-3/4"	6"
2'	1 <sup>3</sup> / <sub>4</sub> "	1'-1¾"	51/4"
3'	21/2"	1'-21/2"	41/4"
4'	31/4"	1'-31/4"	3½"

#### NOTE:

- THE DRIVE WIDTHS AND PROFILE PERTAIN TO <u>ALL</u> URBAN DRIVES, REGARDLESS OF R.O.W. WIDTH OR SIDEWALK LOCATION
- 2. IF REQUIRED FOR COMMERCIAL DRIVES, DETECTABLE WARNING PANELS SHALL BE PLACED PERPENDICULAR TO THE SIDEWALK WITH THE NEAREST EDGE 6" TO 8" FROM THE DRIVE.
- \* DIMENSIONS ARE MAXIMUMS AND ARE TO BE USED IF NECESSARY TO ACCOMMODATE TURNING VEHICLES.

NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION:	SITE/STREET
1	DRAFTING	11-11			
1	MIN WIDTH	11-11	DRIVE WITH VERTICAL GRANITE CURB,	DRAWING NO	D-1
	_		L ODACO DANEL WIDTH 2E'	DATE: 12/	PAGE: 4
APPR	APPROVED BY:			12/	708 1770 1



A -WIDTH OF GRASS PANEL

B -VERTICAL OFFSET AT 30' FOR DRIVES IN FILL

WALK

+9% □

+2%

**PROFILE** 

C -VERTICAL OFFSET AT 30' FOR DRIVES IN CUT

D -VERTICAL DROP OF SIDEWALK

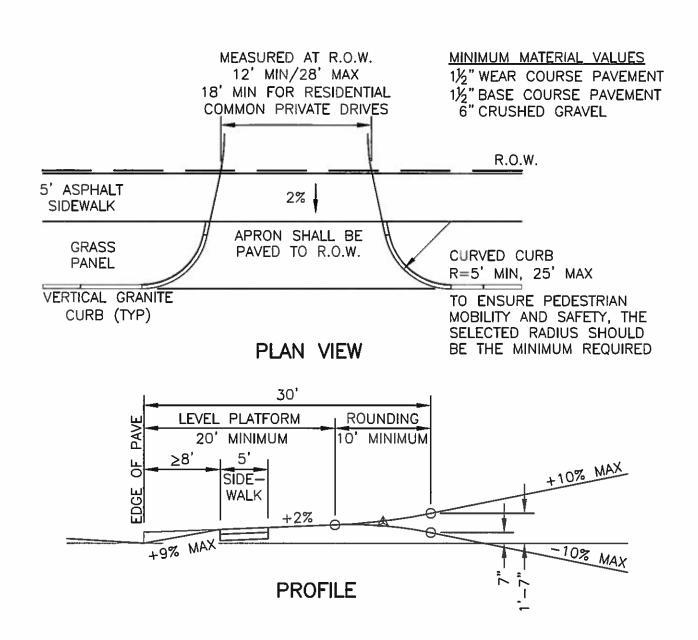
	VERTICAL CURB				
Α	В	C	D		
5'	41/4"	1'-41/4"	23/4"		
6'	5	1'-5"	13/4"		
7	6"	1'-6"	1"		

-10% MAX

B 0

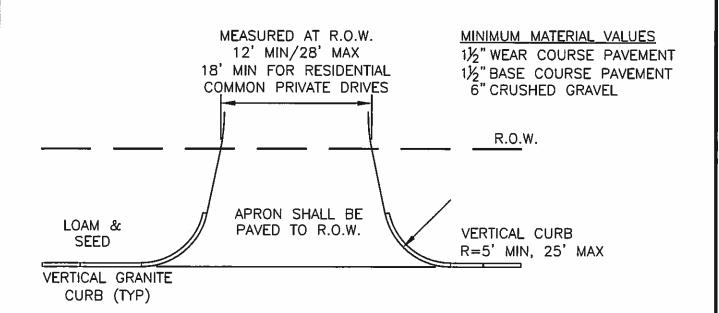
NOTE: THE DRIVE WIDTHS AND PROFILE PERTAIN TO ALL URBAN DRIVES, REGARDLESS OF R.O.W. WIDTH OR SIDEWALK LOCATION

NO.	REVISION	DATE	The second secon
1	MIN WIDTH	11-11	DRIVE WITH VERTICAL GRANITE CURB, DRAWING DOCUMENTS
_	_	_	AND GRASS PANEL No. D-2
_	_	_	0.75
APPR	OVED BY:		BETWEEN 5' AND 8' WIDE DATE: 12/08 PAGE: 1

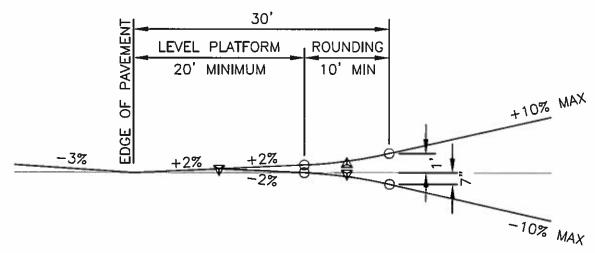


NOTE: THE DRIVE WIDTHS AND PROFILE PERTAIN TO ALL URBAN DRIVES, REGARDLESS OF R.O.W. WIDTH OR SIDEWALK LOCATION

NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION: SITE/STREET
1_	MIN WIDTH	11-11		<u> </u>
		-	DRIVE WITH VERTICAL GRANITE CURB,	DRAWING D-3
_	•	_	CDACC DANEL WIDTH SO'	DATE: 12/08 PAGE: 1
APPR	OVED BY:	827	1	12/08



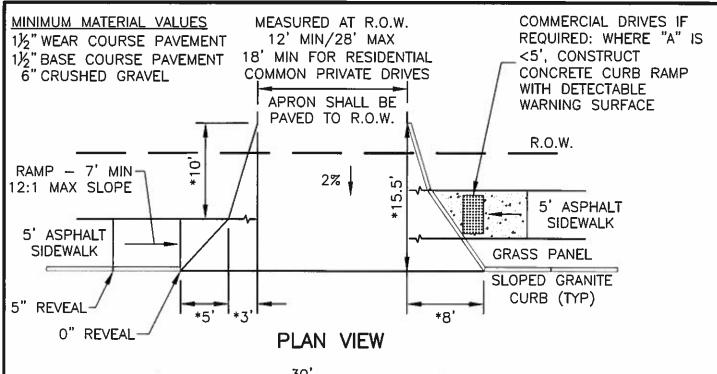
#### PLAN VIEW

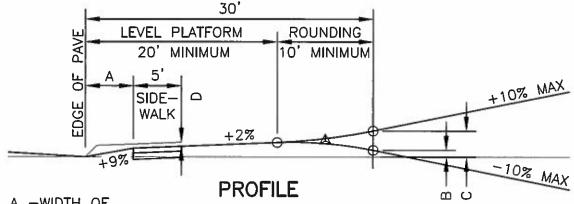


**PROFILE** 

NOTE: THE DRIVE WIDTHS AND PROFILE PERTAIN TO ALL URBAN DRIVES, REGARDLESS OF R.O.W. WIDTH

NO.	REVISION	DATE	City of Concord Engineering Services Division SECTION: SITE/STREET
1	MIN WIDTH	11-11	1
_	-	_	DRIVE WITH VERTICAL GRANITE CURB, DRAWING D-4
_	-	_	W/O SIDEWALK
APPROVED BY:			UAIE: 12/08 PAGE: 1





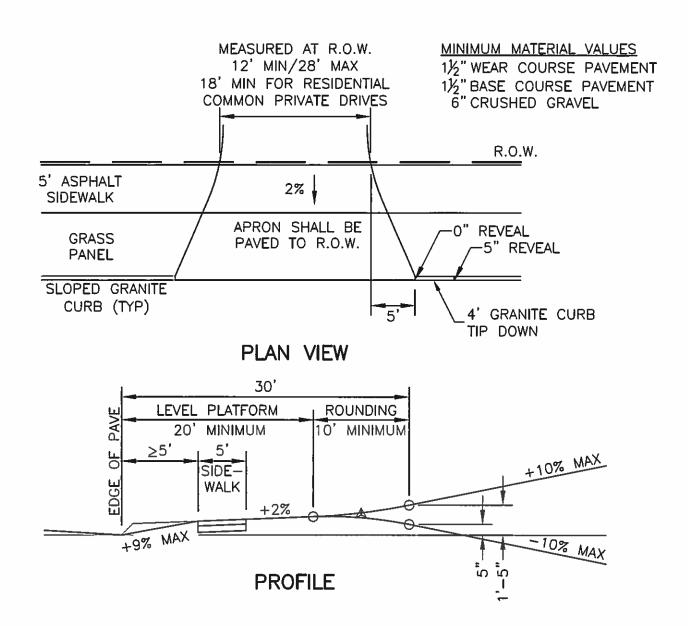
- A -WIDTH OF GRASS PANEL
- B -VERTICAL OFFSET AT 30' FOR DRIVES IN FILL
- C -VERTICAL OFFSET AT 30' FOR DRIVES IN CUT
- D -VERTICAL DROP OF SIDEWALK

	SLOPED CURB				
Α	В	С	D		
0	0	1'-0"	5"		
1'	3/4"	1'-3/4"	4"		
2'	13/4"	1'-1¾"	31/4"		
3'	21/2"	1'-21/2"	21/4"		
4'	31/4"	1'-31/4"	1½"		
5'	5"	1'-41/4"	3/4"		

#### NOTE:

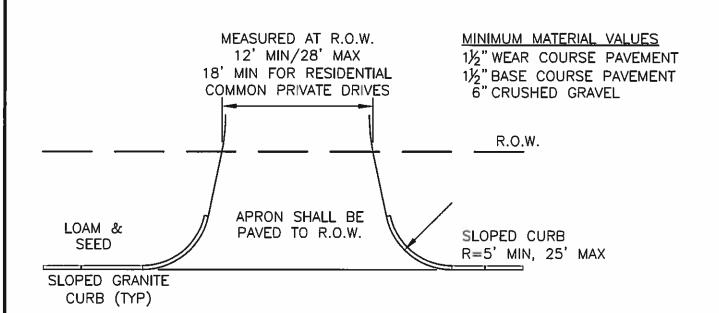
- 1. THE DRIVE WIDTHS AND PROFILE PERTAIN TO ALL URBAN DRIVES, REGARDLESS OF R.O.W. WIDTH OR SIDEWALK LOCATION
- 2. IF REQUIRED FOR COMMERCIAL DRIVES, DETECTABLE WARNING PANELS SHALL BE PLACED PERPENDICULAR TO THE SIDEWALK WITH THE NEAREST EDGE 6" TO 8" FROM THE DRIVE.
- \* DIMENSIONS ARE MAXIMUMS AND ARE TO BE USED IF NECESSARY TO ACCOMMODATE TURNING VEHICLES.

NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION:	SITE/STREET
1	DRAFTING	11-11			
1	MIN WIDTH	11-11	DRIVE WITH SLOPED GRANITE CURB,	DRAWING NO.	D-5
_	-	_	ODACO DANEL WIDTH 407		/08 PAGE: 1
APPR	OVED BY:			12/	′08   · · · · · · · · · · · · · · · · · ·

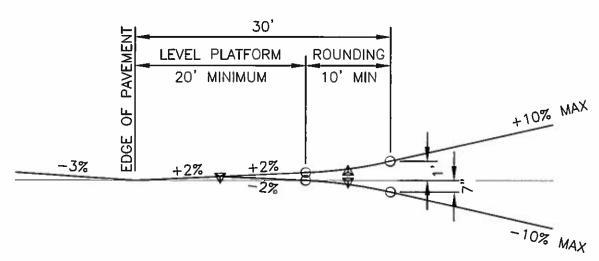


NOTE: THE DRIVE WIDTHS AND PROFILE PERTAIN TO ALL URBAN DRIVES, REGARDLESS OF R.O.W. WIDTH OR SIDEWALK LOCATION

NO.	REVISION	DATE	City of Concord Engineering Services Division SECTION: SITE/STREET
1	MIN WIDTH	11-11	
_	-	_	DRIVE WITH SLOPED GRANITE CURB DRAWING D-6
-	-	_	GRASS PANEL WIDTH >6' DATE: 12/08 PAGE: 1
APPR	OVED BY:		



#### PLAN VIEW



#### **PROFILE**

NOTE: THE DRIVE WIDTHS AND PROFILE PERTAIN TO ALL URBAN DRIVES, REGARDLESS OF R.O.W. WIDTH

NO.	REVISION	DATE	City of	Concord Engineeri	ng Services	Division	SECTION:	SITE/STREET
1	DRAFTING	11-11						
1	MIN WIDTH	11-11	DRIVE WITH SLOPED GRANITE CURB,				DRAWING D-7	
-	-	_		W/O SIDE	WALK		DATE: 12/	OR PAGE: 1
APPROVED BY:				<u> </u>		i	12/	708 1 1

