



Hardcover Information

Reference: City Code Sections [78-1670 thru 78-1701](#)

Planning & Zoning Department 952-249-4620
www.ci.orono.mn.us

The hardcover allowance for an individual property is identified on Orono's Stormwater Quality Overlay (SQO) District map on page 5. Each property within the SQO District has been assigned to one of five 'Tiers' within which a defined percentage of the entire property is allowed to be hardcovered. The percentage of hardcover allowed within each Tier is shown in the following table:

Assigned Tier	Allowed Hardcover Percentage
Tier 1	25% of gross lot area
Tier 2	30% of gross lot area
Tier 3	35% of gross lot area
Tier 4 (properties zoned RPUD)	50% of gross lot area
Tier 5 (properties zoned Industrial)	85% of gross lot area

HARDCOVER IS DEFINED AS FOLLOWS:

Hardcover means a hard surface that prevents or retards entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Hardcover shall include but not be limited to the following: all building footprints, driveways, sidewalks, stepping stones, retaining walls, patios, courts (sport, tennis, etc), decks, pools, areas used for the extended outdoor storage of vehicles or equipment, and all other similar features or surfaces as determined by the City Engineer or City Planner.

HARDCOVER INCLUDES:

- Roofs
- Sidewalks, steps, and patios
- Decks, including decks on play equipment (even if there are gaps between the boards)
- Driveways, regardless of surface material
- Swimming Pools
- Porous or pervious pavement
- Tennis or Sport Courts
- Building Footprints
- Any vehicle, material, equipment, or structure that prevents absorption of rainfall and is maintained in the same location long enough that no vegetation grows under it.

SURVEYS AND HARDCOVER CALCULATIONS

When a permit is requested for expansion or construction of a structure or hardcover an updated site plan and hardcover calculation worksheet will be required to demonstrate compliance with hardcover regulations.

VARIANCES

Variations to hardcover standards may be subject to mitigation measures deemed appropriate by the City Council to offset the impacts generated by the proposed additional hardcover.

Last Updated: January 2020

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HARDCOVER COMPLIANCE

Illegal hardcover may be required to be removed before a building permit is issued. Illegal hardcover is hardcover in excess of that allowed by a hardcover variance or hardcover in excess of that allowed by the Code that was added to the property after 1975 or 1992.

OTHER EXAMPLES OF HARDCOVER

Building Footprint means the outline of the total area covered by a building's perimeter at the ground level (to the block/foundation).

- (1) Carports, covered porches and other similar building features which have no exterior walls shall be included as part of a building footprint by drawing a straight line between the outer edges of all support structures (and the main building if applicable).
- (2) The outer edge of building protrusions, bay windows or other similar features that extend outward from a building and are less than four feet from the ground shall be considered as part of the building footprint.

ASSUMED (INCLUDED) HARDCOVER (CITY CODE SECTION 78-1683)

The following items must be included in hardcover calculations regardless of whether or not they are proposed to be constructed at the time of a building permit application:

- (1) Proof of a two car garage (detached or attached).
- (2) A driveway for all garages, a minimum of 12 feet in width subject to the driveway standards listed below.
- (3) Minimum dimensions for driveways (see Minimum Driveway Standards illustration herein)
- (4) 24 inch wide sidewalk connecting the front door to the driveway
- (5) The minimum stairway/landing at all exterior doors as required by the building code
- (6) Existing hardcover which encroaches (legally or illegally) onto an adjacent parcel or parcels.
 - a. In such cases of encroachment, the square footage of all encroaching hardcover shall be added to the overall hardcover on the subject lot;
 - b. No credit shall be given towards the overall lot size of the subject lot.

STANDARD HARDCOVER EXCLUSIONS (CITY CODE SECTION 78-1684)

Landscaping with permeable lining shall not be considered hardcover. Additionally, the following hardcover items shall be excluded from hardcover calculations:

- (1) Roads, trails, sidewalks, utilities and other hardcover encroachments intended for the public's benefit;
- (2) Hardcover encroachments created by improvements on adjacent property not owned by the subject landowner;
 - a. In such cases of encroachment, the square footage of all encroaching hardcover shall not be added to the overall hardcover counting against the subject lot;
 - b. The land area upon which the encroachment rests shall count towards the overall lot area for the subject lot.
- (3) Retaining walls;
- (4) Handicapped ramps with a pervious surface below; and
- (5) The first 100 square feet of pervious paver patios/walkways or the first 100 square feet of deck with a minimum ¼ inch spacing between boards and a pervious surface below the decking within a conforming location.

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HARDCOVER RESTRICTED WITHIN 75 FEET OF LAKESHORE

Within 75 feet of the Ordinary High Water Level (OHWL) of any lake or tributary, and within any bluff or shore impact zone, no hardcover shall be placed, located or constructed, except for driveways, stairways, lifts, landings and lockboxes as regulated by the Shoreland Overlay District.

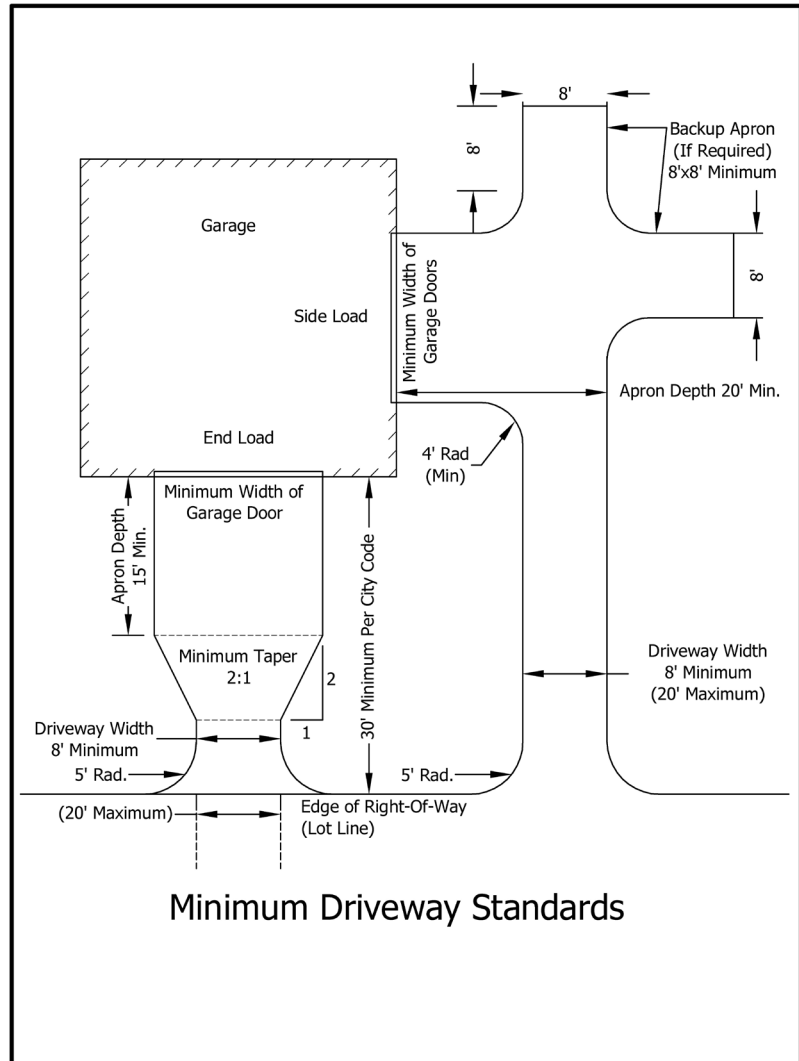
DRIVEWAY STANDARDS

All driveways shall comply with the following minimum dimensional standards:

Driveways serving end loading garages shall maintain a width equivalent to the width of all overhead doors extending 15 feet out from the garage doors.

- (1) Driveways serving side loading garages shall provide a minimum turn around or back up depth of 20 feet, as measured from the garage door(s).
- (2) Minimum driveway taper ratio shall be 2:1.
- (3) Driveways shall be at least eight feet in width at the street or private road.
- (4) A turnaround shall be provided for a driveway with direct access to an arterial or collector roadway, or for a side load garage as determined necessary by the city planner. The minimum dimensions of the turnaround shall be eight feet in width by 12 feet in depth.
- (5) "Wheel strip" driveways are allowed, but the entire width of the driveway (from outside to outside of the strips) will be considered hardcover.

See "Minimum Driveway Standards" drawing on the right.



Last Updated: January 2020

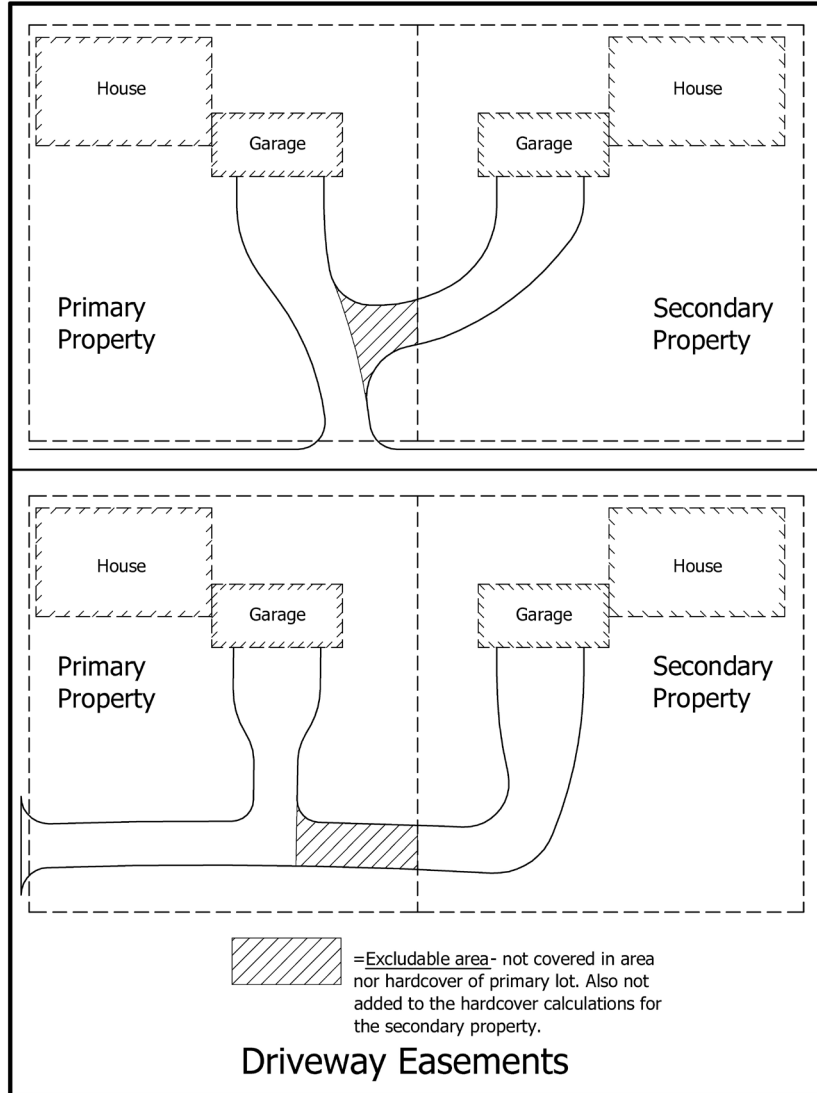
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SHARED DRIVEWAYS

Where one or more properties (referred to as secondary property) gain its driveway access from an adjacent property (a primary property) by virtue of a driveway easement, the following shall apply:

- (1) The portion of the shared driveway on the primary property that serves both primary and secondary property shall be considered hardcover for the primary property.
- (2) That portion of the driveway on the primary property that serves only secondary property shall not be considered hardcover for either primary or secondary property.

See "Driveway Easements" drawing below.

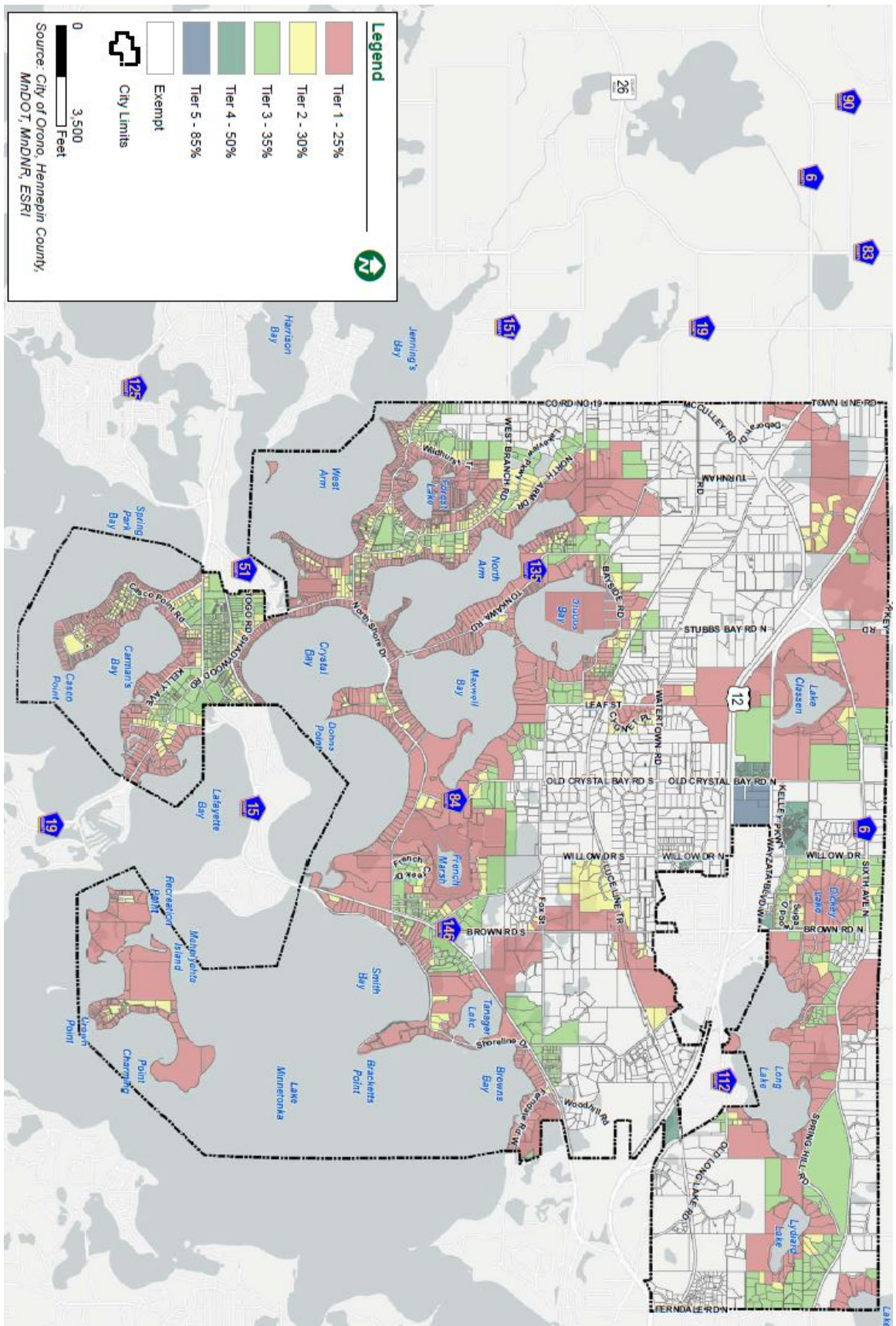


FOR MORE INFORMATION

Contact the Planning and Zoning Department at 952-249-4620 or planning@ci.orono.mn.us.

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City of Orono
Hardcover Calculation Worksheet

Property Address 123 Sample Street

Prepared by Joe Surveyor Date Today

Stormwater Quality Overlay District Tier: (Circle one) **Tier 1** Tier 2 Tier 3 Tier 4 Tier 5

Step 1: EXISTING HARDCOVER

In the following table identify all items of existing hardcover on the property, keyed by letter to the site plan or survey (must accompany this form). Use as many lines as necessary to accurately depict existing hardcover status of the property.

Key to Survey	Hardcover Item (Describe)	Length x Width	Total (Square Feet)
(Example)	(Garage)	(24' x 30')	(720 S.F.)
A	House	30' x 60'	1,800 S.F.
B	"	20' x 24'	480 S.F.
C	Detached garage	16' x 22'	352 S.F.
D	Deck	12' x 16'	192 S.F.
E	Deck stairs	12' x 4'	48 S.F.
F	Front steps & stoop	6' x 8'	48 S.F.
G	Concrete sidewalk	3' x 32'	96 S.F.
H	Driveway apron	28' x 20'	560 S.F.
I	Driveway	14' x 60'	840 S.F.
J	Triangular part of neighbor's driveway	3' x 12' + 2	18 S.F.
K	Concrete air conditioner pad	4' x 4'	16 S.F.
L	Garden shed	9' x 12'	108 S.F.
M	Stairway to lake	4' x 70'	280 S.F.
N	Lockbox by lake	4' x 5'	20 S.F.
O	Retaining wall <u>within</u> 75' of lake	1' x 48'	48 S.F.
P	Retaining wall <u>not</u> within 75' of lake	1' x 60'	60 S.F.
Q			S.F.
R			S.F.
S			S.F.
T			S.F.
U			S.F.
(1) Total Existing Hardcover			4,966 S.F.
Excludable Hardcover:			
D	First 100 s.f. of pervious deck		100 S.F.
J	Triangular part of neighbor's driveway	3' x 12' + 2	18 S.F.
P	Retaining wall <u>not</u> within 75' of lake	1' x 60'	60 S.F.
			S.F.
			S.F.
(2) Total Excludable Hardcover			178 S.F.
(3) Net Existing Hardcover [Subtract line (2) from line (1)]			4,788 S.F.
(4) Total Lot Area (100' x 240')			24,000 S.F.
Existing Hardcover Percentage [(3) ÷ (4)]			19.95 %

(Proposed Hardcover next page)

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City of Orono
Hardcover Calculation Worksheet

Property Address 123 Sample Street

Prepared by Joe Surveyor Date Today

Stormwater Quality Overlay District Tier: (Circle one) **Tier 1** Tier 2 Tier 3 Tier 4 Tier

5

Step 2: PROPOSED HARDCOVER

In the following table, identify all items of proposed hardcover on the property, keyed by letter to site plan or survey (must accompany this form). Include all existing hardcover items that are intended to remain, as well as all proposed hardcover items that will be added. Use as many lines as necessary to accurately depict proposed hardcover status of the property.

Key to Survey	Hardcover Item (Describe)	Length x Width	Total (Square Feet)
(Example)	(Garage)	(24' x 30')	(720 S.F.)
A	House	30' x 60'	1,800 S.F.
B	"	20' x 24'	480 S.F.
C	Detached garage (To be removed)	16' x 22'	352 S.F.
D	Deck	12' x 16'	192 S.F.
E	Deck stairs	12' x 4'	48 S.F.
F	Front steps & stoop	6' x 8'	48 S.F.
G	Concrete sidewalk	3' x 32'	96 S.F.
H	Driveway apron (To be removed)	28' x 20'	560 S.F.
I	Driveway	14' x 60'	840 S.F.
J	Triangular part of neighbor's driveway	3' x 12' + 2	18 S.F.
K	Concrete air conditioner pad	4' x 4'	16 S.F.
L	Garden shed (To be removed)	9' x 12'	108 S.F.
M	Stairway to lake	4' x 70'	280 S.F.
N	Lockbox by lake	4' x 5'	20 S.F.
O	Retaining wall within 75' of lake	1' x 48'	48 S.F.
P	Retaining wall <u>not</u> within 75' of lake	1' x 60'	60 S.F.
Q	New attached garage (To be added)	30' x 32'	960 S.F.
R	New driveway apron (To be added)	30' x 30'	900 S.F.
S			S.F.
T			S.F.
U			S.F.
(1) Total Proposed Hardcover			5,806 S.F.
Excludable Hardcover:			
D	First 100 s.f. of pervious deck		100 S.F.
J	Triangular part of neighbor's driveway	3' x 12' + 2	18 S.F.
P	Retaining wall <u>not</u> within 75' of lake	1' x 60'	60 S.F.
			S.F.
			S.F.
(2) Total Excludable Hardcover			178 S.F.
(3) Net Proposed Hardcover [Subtract line (2) from line (1)]			5,628 S.F.
(4) Total Lot Area (100' x 240')			24,000 S.F.
Proposed Hardcover Percentage [(3) ÷ (4)]			23.45 %

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City of Orono Hardcover Calculation Worksheet

Property Address: _____
 Prepared by: _____ Date: _____

Stormwater Quality Overlay District Tier: (Circle one) **Tier 1** Tier 2 Tier 3 Tier 4 Tier 5

Step 1: EXISTING HARDCOVER

In the following table identify all items of existing hardcover on the property, keyed by letter to site plan or survey (must accompany this form). Use as many lines as necessary to accurately depict existing hardcover status of the property. For Tier 1 properties, identify any features by letter which are split at the 75' setback line and calculate hardcover square footage separately for each portion.

Key to Survey	Hardcover Item (Describe)	Length x Width	Total (Square Feet)
(Example)	(Garage)	(24' x 30')	(720 S.F.)
A			S.F.
B			S.F.
C			S.F.
D			S.F.
E			S.F.
F			S.F.
G			S.F.
H			S.F.
I			S.F.
J			S.F.
K			S.F.
L			S.F.
M			S.F.
N			S.F.
O			S.F.
P			S.F.
Q			S.F.
R			S.F.
S			S.F.
T			S.F.
U			S.F.
V			S.F.
W			S.F.
X			S.F.
Y			S.F.
Z			S.F.
(1) Total Existing Hardcover			S.F.
Excludable Hardcover (See City Code Sec 78-1684):			
			S.F.
			S.F.
			S.F.
			S.F.
(2) Total Excludable Hardcover			S.F.
(3) Net Existing Hardcover [Subtract line (2) from line (1)]			S.F.
(4) Total Lot Area			S.F.
Proposed Hardcover Percentage [(3) ÷ (4)]			%

(Proposed Hardcover next page)

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Hardcover Calculation Worksheet



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 Prepared by: _____ Date: _____

Stormwater Quality Overlay District Tier: (Circle one) **Tier 1** Tier 2 Tier 3 Tier 4 Tier 5

Step 2: PROPOSED HARDCOVER

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Key to Survey	Hardcover Item (Describe)	Length x Width	Total (Square Feet)
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F			S.F.
G			S.F.
H			S.F.
I			S.F.
J			S.F.
K			S.F.
L			S.F.
M			S.F.
N			S.F.
O			S.F.
P			S.F.
Q			S.F.
R			S.F.
S			S.F.
T			S.F.
U			S.F.
V			S.F.
W			S.F.
X			S.F.
Y			S.F.
Z			S.F.
(1) Total Proposed Hardcover			S.F.
Excludable Hardcover (See City Code Sec 78-1684):			
			S.F.
			S.F.
			S.F.
			S.F.
			S.F.
(2) Total Excludable Hardcover			S.F.
(3) Net Proposed Hardcover [Subtract line (2) from line (1)]			S.F.
(4) Total Lot Area			S.F.
Proposed Hardcover Percentage [(3) ÷ (4)]			%

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