Guidance for Submitting a Non-structural Impervious Surface Improvements Permit Application

Introduction

On September 4, 2024, the Miami-Dade County Board of County Commissioners approved the Impervious Surface Ordinance to enhance resilience, improve water quality, and reduce future risks of flooding for Miami-Dade County.

Among the new standards are requirements applicable to “non-structural impervious surface improvements,” which the ordinance defines as the installation or placement of pavement, slab, pavers, or other materials or items that reduce the pervious area, as determined by the Director; or the compaction of ground or fill in a manner that results in an impervious surface conducive to stormwater runoff, as determined by the Director.

The following guidelines are applicable to non-structural impervious surface improvements for single-family and duplex properties.

When is a Non-structural Impervious Surface Improvements Permit required?

A Non-structural Impervious Surface Improvements Permit (ISR) is required when a stand-alone non-structural impervious surface improvement is proposed that is not related to a building permit application.
For example:

- Concrete slab
- Driveway replacement or expansion
- Placing of synthetic turf or other artificial materials
- Replacement of concrete patio with pavers
- Proposed paved walkway
- Pool deck expansion or replacement
    - Note: A proposed swimming pool and pool deck will not need an ISR because the non-structural impervious surface (pool deck) will be reviewed as part of the required building permit application for the proposed swimming pool.

The non-structural impervious surface improvements permit is required within Unincorporated Miami-Dade County and with the boundary of the following municipalities:

- The Village of Bal Harbour
- The Town of Bay Harbour Islands
- The Town of Surfside
- The Town of Medley
- The Village of Virginia Gardens
- The City of Sunny Isles Beach
- Florida City
- The City of Sweetwater

ISR Submittal Documents

- Topographic Survey (Required)
  - Signed and sealed
  - Include existing elevations and elevations of adjacent properties
- Grading Plan (Required)
  - Include proposed elevations and cross-sections of grade transition of the project site and adjacent properties
- Site Plan (Required)
  - Include land use table, delineation of setbacks, etc.
- Stormwater (Drainage) Calculations (Optional)
- Specifications and Details (Optional)
- Project Location Aerial (Optional)

Review Requirements

As part of an ISR, the County will review a single-family or duplex property in its entirety to ensure compliance with current code requirements.

It is required that single-family and duplex properties demonstrate that the lot retains, at a minimum, the runoff from a 25-year/10-minute storm event with zero offsite discharge per Section 24-42.8(4)(b)(i).

In lieu of calculations, the applicant can provide a site plan and grading plan demonstrating that the lot meets the minimum pervious setback areas and pervious lot area considered equivalent to a 25-year/10-minute storm event with zero offsite discharge retention as described in Section 24-42.8(4)(b)(i) and summarized in *Table 1* below.

The following is considered equivalent to the **25-year/10-minute storm event** with zero off-site discharge. ***Each requirement must be met to be considered equivalent.*** Note that the pervious lot area requirement varies based on lot size.

Table 1

Pervious Area Setback Requirement	**Perimeter Swale Requirement**	**Pervious Lot Area Requirement (Lots Less than 5,500 SF)**	**Pervious Lot Area Requirement (Lots Larger than 5,500 SF)**
5 feet of pervious area setback on 3 sides of the property	6-inch-deep swale along the property perimeter	20% of pervious lot area	25% of pervious lot area
OR			
2.5 feet of pervious area setback on 2 sides of the property and 10 feet of pervious area setback on 1 side	6-inch-deep swale along the property perimeter	20% of pervious lot area	25% of pervious lot area

Below are additional requirements applicable to an ISR; however, please note that this is not an all-inclusive list.

- Demonstrate that the proposed impervious surface improvement shall not cause stormwater runoff onto adjacent parcels per Section 24-42.8(4)(a).
- The elevations along the perimeter of the property should match the existing elevations of the adjacent properties per Section 24-42.8(4)(b)(i)(3).
- Provide a retaining wall or equivalent feature as the proposed grading raises the property more than 1.5 feet compared to the elevations of adjacent properties per Section 24-42.8(4)(b)(i)(4).

Demonstrating Compliance

The following information and examples are provided as recommended methods to demonstrate compliance with the code requirements.

Pervious Area Setback Requirement:

- It is expected that the applicant will provide a site plan clearly dimensioning the pervious area setbacks. This site plan can be a sketch over the required signed and sealed topographic survey. CAD software is recommended to create a site plan and grading plan.
- *Figure 1* below is simplified to demonstrate the dimensioning of the 5 feet of pervious area setback on 3 sides of the property

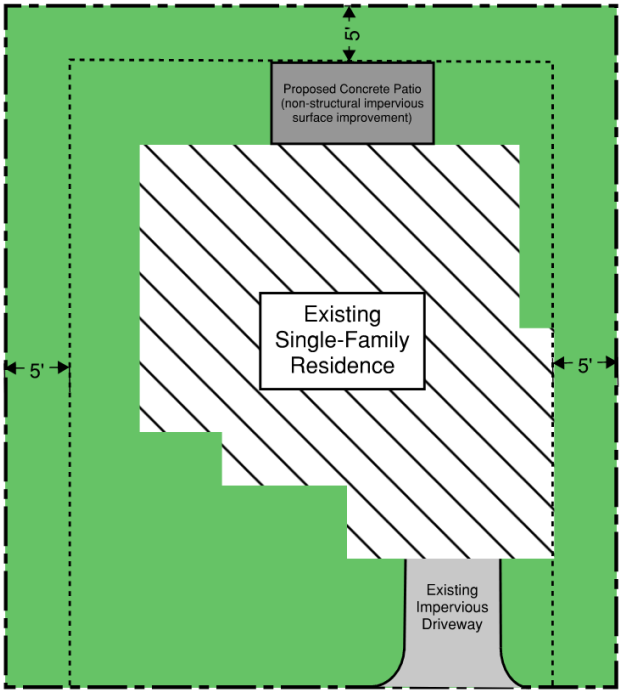


Figure 1

- *Figure 2* shown below proposes a pavers driveway and walkway for an existing single-family property. The site plan and the cross-section dimensions demonstrate that the pervious area setbacks meet the minimum requirements.

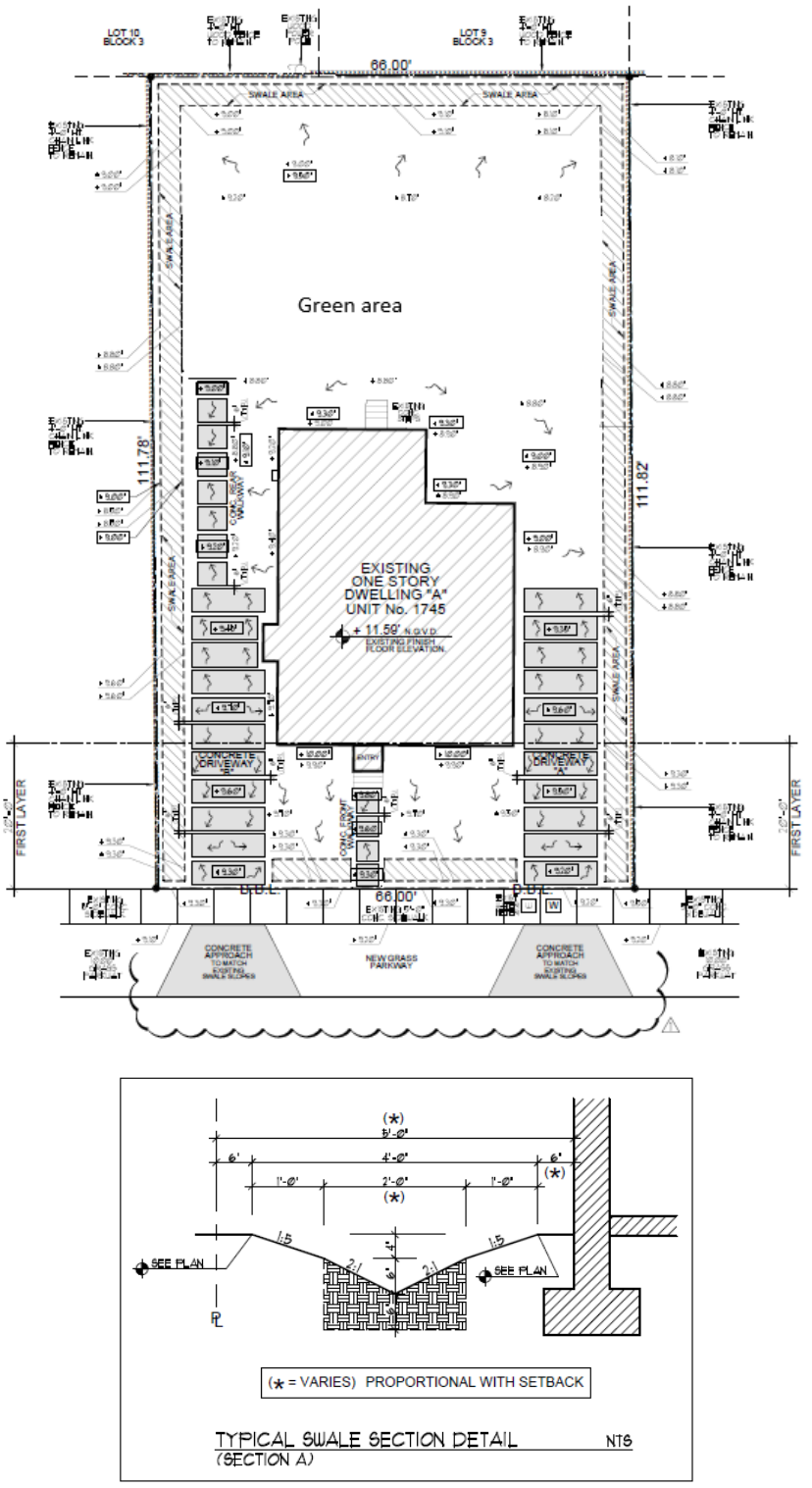

LOT 10
BLOCK 3
LOT 9
BLOCK 3
66.00'
SWALE AREA
Green area
111.78'
111.82'
EXISTING
ONE STORY
DWELLING "A"
UNIT No. 1745
+ 11.59' N.G.V.D.
EXISTING FINISH
FLOOR ELEVATION
CONCRETE
DRIVEWAY "B"
CONCRETE
DRIVEWAY "A"
CONC. REAR
WALKWAY
CONC. FRONT
WALKWAY
FIRST LAYER
66.00'
D.U.E.
CONCRETE
APPROACH
NEW GRASS
PARKWAY
(*)
5'-0"
6'
4'-0"
1'-0"
2'-0"
(*)
SEE PLAN
1:5
2:1
4"
6"
PL
(* = VARIES) PROPORTIONAL WITH SETBACK
TYPICAL SWALE SECTION DETAIL
(SECTION A)
NTS

Figure 2

Perimeter Swale Requirement:

- The grading plan should clearly depict the location and grades of the perimeter swale.
- The perimeter swale should be designed to not cause stormwater runoff onto adjacent parcels. The elevations along the perimeter of the property should match the existing elevations of the adjacent properties.
- It is also recommended to demonstrate that the perimeter swale meets minimum requirements using specific or typical cross-sections as shown in *Figure 3* and *Figure* 4 below.

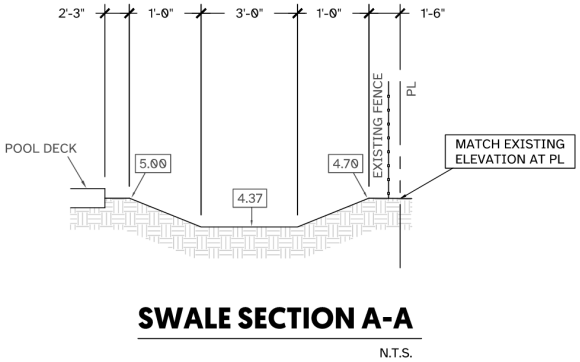


Figure 3

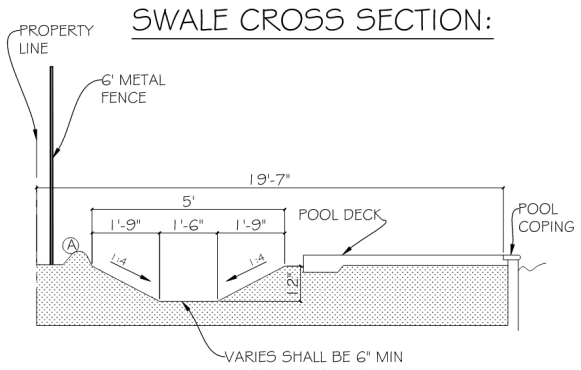


Figure 4

Pervious Lot Area Requirement:

- The site plan and/or grading plan should include a land use table to clearly show compliance with the minimum pervious lot area percentages.
- *Table 2* below is an example land use table for a lot less than 5,500 SF demonstrating that the pervious lot area exceeds the minimum requirement of 20%.

Table 2

Land Use	Area (SF)	Percentage (%)
Single-Family Residence (Impervious)	2,104	52.3%
Pavement (Impervious)	1,022	25.4%
Pervious	894	22.2%
Total	4,020	100.0%

- *Table 3* below is an example land use table for a lot larger than 5,500 SF demonstrating that the pervious lot area exceeds the minimum requirement of 25%.

Table 3

Land Use	Area (SF)	Percentage (%)
Single-Family Residence (Impervious)	3,480	46.3%
Pavement (Impervious)	1,456	19.4%
Pervious	2,587	34.4%
Total	7,523	100.0%

When do plans need to be signed and sealed?

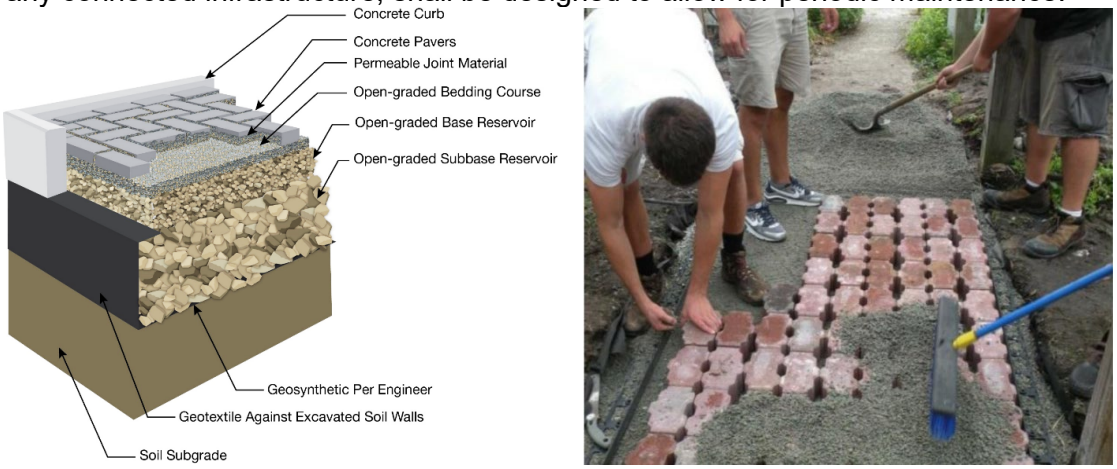
The required topographic survey must be signed and sealed. Non-structural impervious surface improvements that do not require the design of a licensed engineer or architect do not require the site plan or grading plan to be signed and sealed.

Are permeable pavers/pavement considered pervious?

If permeable pavers or pavements are proposed within a single-family or duplex property, the detail of the pavers or pavements must be submitted along with permit applications (Figure 5).

Pavers shall be reviewed as non-structural impervious surface improvements, except that pavers installed and maintained in accordance with all of the following shall be deemed to be pervious areas:

1. Pavers are installed in low traffic areas with sandy soils, slopes less than 5 degrees (<5o), and a minimum of 24 inches between the water table and the paver base.
2. Pavers are certified by the manufacturer to be pervious.
3. Soils underlying pavers have a minimum permeability rate of 0.8 inches (2 cm) per hour, and pavers may be combined with an underdrain discharging into exfiltration trenches or other drainage infrastructure. Such an underdrain shall be required if the permeability rate of underlying soil is less than 0.8 inches (2 cm) per hour. An underdrain system, including any connected infrastructure, shall be designed to allow for periodic maintenance.



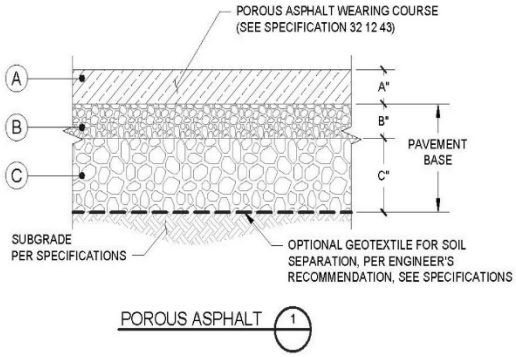




Figure 5

Where can I find additional information on stormwater management code requirements?

Section 24-42.8 – Stormwater-related standards for Miami-Dade County

What is the penalty for installation without this approval

A civil penalty of $500 applies for a non-structural impervious surface improvement installed, replaced, or expanded at a single-family residential property without plan approval per Section 8CC-10.