



# NASSAU COUNTY ENGINEERING SERVICES TECHNICAL REVIEW CHECKLIST

EFFECTIVE JULY 26, 2010

Development / Project Name: \_\_\_\_\_

Date: \_\_\_\_\_

YES      NO      N/A

## I. Notation Sheet(s):

|       |       |       |                                                                                                                                           |
|-------|-------|-------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <hr/> | <hr/> | <hr/> | a.) Must identify specific horizontal and vertical datum.                                                                                 |
| <hr/> | <hr/> | <hr/> | b.) Any reference to Engineer must be identified as "Engineer of Record".                                                                 |
| <hr/> | <hr/> | <hr/> | d.) Must contain a statement stating that the Contractors assume full responsibility for complying with State and/or Federal safety laws. |
| <hr/> | <hr/> | <hr/> | e.) Plans should have a legend showing the symbols used in the plans.                                                                     |
| <hr/> | <hr/> | <hr/> | f.) Plans must be to scale whether submitted as 24"x36" or 11"x17".                                                                       |
| <hr/> | <hr/> | <hr/> | g.) Any variances to code requirements have been obtained and documentation provided.                                                     |
| <hr/> | <hr/> | <hr/> | h.) Provide certificate of completeness.                                                                                                  |
| <hr/> | <hr/> | <hr/> | i.) Provide copies of all permits. SJRWMD, FDOT or any other, as applicable.                                                              |
| <hr/> | <hr/> | <hr/> | j.) Provide drainage certification and operation and maintenance entity documentation.                                                    |

## II. Design:

### a.) Street and Highways:

|       |       |       |                                                                                                                                                                                                                                            |
|-------|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <hr/> | <hr/> | <hr/> | 1.) All streets shown in the plans must have a street name and ROW width identification on all applicable plan sheets. ( Ord 2000-40, Sec 4.1 & 3.3.2)                                                                                     |
| <hr/> | <hr/> | <hr/> | 2.) Subdivision streets shall be 60' wide ROW or 50' wide with a 5' utility easement on both sides of the street.( Ord 99-17, Sec 11.2.1)                                                                                                  |
| <hr/> | <hr/> | <hr/> | 3.) All Right of Ways conform to section requirements of Ordinance 99-17, Section 11.2                                                                                                                                                     |
| <hr/> | <hr/> | <hr/> | 4.) Curb and gutter with sidewalks are required in all developments with lots one (1) acre or less. ( Ordinance 99-17, Section 11.2.6)                                                                                                     |
| <hr/> | <hr/> | <hr/> | 5.) All cul de sacs shall have a minimum ROW radius of 65' and minimum paved radius of 50 feet. Elevations shall be provided at the center of the Cul de Sac and at quarter points of the circle. ( Ordinance 99-17, Sections 10.7.1&11.2) |
| <hr/> | <hr/> | <hr/> | 6.) All street and curve data and distances between curves must be shown. (Ordinance 2000-40, Section 3.3.8, and 99-17, Sections 10.7.1 and 11.1.2)                                                                                        |
| <hr/> | <hr/> | <hr/> | 7.) Sidewalks are required on both sides of streets unless waived or are a part of a Developers Agreement, or a circulation plan is submitted. ( Ordinance 99-17, Section 11.7.1)                                                          |
| <hr/> | <hr/> | <hr/> | 8.) Plans must have typical cross sections for streets that match County Standards. ( Ordinance 99-17, standard detail 2 through 12 and Sec 10.7.1)                                                                                        |

- 9.) Plans must have street profiles or sufficient elevations to determine the street slopes, high point and low point. Ground water elevations must be shown on the profiles. ( Ordinance 2000-40, Section 3.4.2. and 99-17, Sections 10.7.1 and 11.11.4)
- 10.) Handicap ramps and other apperturances should be shown where applicable and meet current FDOT and Florida Accessibility Code criteria. (Ordinance 99-17, Section 11.7.2)
- 11.) Centerline radii conform to the requirements. (Minimum 100 feet)  
( Ordinance 99-17, Section 11.6.1)
- 12.) When required, turn lanes or intersection plans shall be submitted.  
( Ordinance 99-17, Sections 9.8, 10.7.1 and 11.1.2)
- 13.) Borings information to minimum depth of 6' below the proposed PGL spaced no further than 500' or a minimum of 2 per proposed roadway. (Ordinance 99-17, Sections 11.5.1)
- 14.) Any asphalt specification other than those listed in section 11.5.3 shall conform with FDOT criteria.
- 15.) Pipe sizes, length and cover requirements have been met. (Ordinance 99-17, Section 11.11)

b.) Traffic:

- 1.) All striping and signage shall conform to the Manual on Uniform Traffic Control Devices  
( Ordinance 99-17, Section 11.9)
- 2.) Thermoplastic striping shall be specified. ( Ordinance 99-17, Section 11.9.2)
- 3.) A traffic study detailing ADT's and peak hour vehicle trips. When ADT's exceed the ordinance requirements, left and right turn lanes or acceleration or deceleration lanes may be added. (Ordinance 99-17, Section 9.8)
- 4.) MOT plans when work is required on existing streets. ( Ordinance 99-17, Section 8.3)
- 5.) Storm sewer profiles of line within streets ROW with utility crossings.  
(Ordinance 99-17, Sections 10.7.1 and 11.11)

c.) Drainage:

- 1.) A drainage report for the project including the following:
  - a.) Geotech report where applicable (Ordinance 99-17, Section 10.6.2)
  - b.) Computations proving that peak flow rates for 5, 10 & 25 year storm events are less for post development conditions than pre development conditions. ( Ordinance 99-17, Section 10.6.3.a)
  - c.) Design and computation proving the site has sufficient detention capacity to limit 25 year discharges to pre development flow during critical period. (Ordinance 99-17, Section 10.6.1.b)
  - d.) SCS Type II Florida Modified rainfall distribution shall be used for all computations.(Ordinance 99-17, Section 10.6.3.7)
  - e.) Roadway storm sewer systems shall be designed for 5 year frequency so as not to have the hydraulic grade line higher than any grate elevation however, sewers must also be designed to limit temporary street flooding to half of a traffic lane and full recovery within a reasonable time with a 25 year rain. (Ordinance 99-17, Section 10.6.4.1)
  - f.) Parking lots and streets are designed based on 5 year storm using FDOT Zone 4 intensities, durations and frequency curves.  
(Ordinance 99-17, Section 10.6.4.3)
  - g.) High water in the sewer system is determined by hydraulic grade line.  
(Ordinance 99-17, Sections 10.6.4.4, 10.6.4.5 and 10.7.1)
  - h.) Detention Computations may be accomplished using ICPR, Hec Ras, Pond Storm Cad or other suitable computer programs.  
Ordinance 99-17, Sections 10.6.3.3 and 10.7.1)
  - i.) Storm sewer design must be by FDOT Sewer Design or suitable

- \_\_\_\_\_ program. ( Ordinance 99-17, Section 10.6.4.4 and 10.7.1)
- \_\_\_\_\_ j.) Tailwater elevations shall be used in storm sewer and detention design when applicable and shall be the highest reasonably expected tailwater expected during the storm event. (Ordinance 99-17, Section 10.6.4.5)
- \_\_\_\_\_ k.) All wet detention and dry retention basins with greater than 4:1 side slopes shall have a 6' high FDOT Type B chain link fence around it. (Ordinance 99-17, Sections 10.6.1.4 and 10.7.1)
- \_\_\_\_\_ l.) The 100 year flood plain shall be clearly shown on the construction plans where applicable. ( Ordinance 2000-40, Section 3.3.14)
- \_\_\_\_\_ m.) Minimum first floor elevations shall be identified on the construction plans. These elevations shall be a minimum of 1' above the 100 year flood plain or 18" above the centerline street elevation at the center of the lot. (Ordinance 99-17, Section 10.8.1)
- \_\_\_\_\_ n.) All drainage easements and detention basins shall be located within clearly defined easement or tracts. Should drainage from public facilities drain through or across private lands, easements shall be shown on the plans and (if not recorded by plat) draft easement grantee documents shall be submitted with the plans. (Ordinance 99-17, Section 10.7.1)
- \_\_\_\_\_ o.) Plans shall have drainage maps with drainage sub basins marked. (Ordinance 99-17, Sections 10.6.6.3.3 and 10.7.1)
- \_\_\_\_\_ p.) Plan and profile sheets for the storm sewers under streets or parking areas shall be provided. Also water and sanitary sewer line crossings shall be shown with clearance from the storm sewer. (Ordinance 2000-40, Section 3.4.2 , Sec 5.3.2 and Ordinance 99-17, Section 10.7.1)
- \_\_\_\_\_ q.) All Lots shall be designated and A, B or C grading and there shall be a FHA grading detail on the plans and Finished Floor elevations. (Ordinance 2000-40, Section 3.4)
- \_\_\_\_\_ r.) For ICPR computations, a peaking factor of 256 shall be used for pre developed ground and a factor of 484 shall be used for developed ground. (Ordinance 99-17, Section 10.7.1)
- \_\_\_\_\_ s.) Should dry retention be proposed a double ring infiltrometer test (1 per basin) shall be submitted to verify the K value used in the recovery analysis. Should swale treatment variance be granted an infiltrometer test shall be performed at intervals of no less than 1000' along the centerline of each swale. (Ordinance 99-17, Sec 10.7.1)

D.) Site Plans:

- \_\_\_\_\_ 1.) Construction plans shall have the project boundary shown with bearings and distances. (Ordinance 2000-40, Section 3.3.1 and Ordinance. 99-17, Section 10.7.1)
- \_\_\_\_\_ 2.) If the project is to be completed in phases, then each phase line should be clearly shown and each phase must be functional for roads and drainage. (Ordinance 99-17, Section 10.7.1)
- \_\_\_\_\_ 3.) There must be a permanent reference elevation benchmark shown on the plans within the project (Ordinance 2000-40, Section 3.3.18 and Ordinance 99-17, Section 10.7.1)
- \_\_\_\_\_ 4.) All existing wells and septic tanks within the site or within 75' of the site shall be noted on the plans. (Health Department requirement)
- \_\_\_\_\_ 5.) Construction to an access roadway must be shown. For projects over 25 lots, 2 access points must be identified. (Ordinance 2000-40, Section 4.8.1)
- \_\_\_\_\_ 6.) All wetlands must be clearly identified. (Ordinance 2000-40, Section 3.3.16 and Ordinance 99-17, Section 10.7.1)
- \_\_\_\_\_ 7.) Wetland buffers with buffer tables must be on plans where applicable.
- \_\_\_\_\_ 8.) Owners and parcel numbers of adjoining property owners must be

shown on plans.

9.) Percentage of impervious surface ratio and computations must be shown.

E.) Sediment and Erosion Control:

- 1.) Silt fences and straw barrier locations must be shown on plans. (Ordinance 99-17, Section 10.6.5.1)
- 2.) Detail sheet including fence and barrier details. (Ordinance 99-17, Section 10.6.5.1)
- 3.) NPDES requirements of the Contractor SHOULD be in the plans. County Requirements of the Contractor set forth in Section 10.6.5 SHOULD be included in the plans.

F.) Detail Sheets Must Include:

- 1.) Detail of all detention basin outlet structures with dimensions and elevations that agree with drainage report.
- 2.) Cross section detail of detention basin showing bottom elevation, normal water level, high water level as well as top of bank elevation.
- 3.) Side slopes must be identified.
- 4.) Water table should be noted on basin detail.
- 5.) Typical street cross section for all widths of streets conforming to County regulations with street names identified with each width.
- 6.) Curb detail or details where mutable curbs are shown. Their use must be identified on streets.
- 7.) The area of the detention pond water surface at normal water level must be shown on the plans ( All above, reference Ord 99-17, Sec 10.7.1)

G.) Lighting Plan

- 1.) All projects must have a lighting plan conforming to Nassau County Ordinance 2005-53

Note: The above review items represent the major review design items of the Department. It is intended to be as comprehensive as practicable. Due to the unique nature of all projects additional items must be addressed occasionally. Please be advised that due to this fact the checklist is updated on occasion and it is the responsibility of the applicant to have the latest checklist.

I, \_\_\_\_\_ certify that I have completed this checklist and all required items are included in this application. I understand that if any item is checked "no" or "N/A" and it is, in fact, a requirement of an Ordinance these plans are subject to rejection upon receipt and a re-application may be necessary.

I also understand that this checklist is not intended to be all inclusive and may change from time to time. Apparent compliance with the Code requirements by virtue of approval of these plans shall not in any way enjoin Nassau County for the responsibility of their content. Plan reviews by the Department which generate excessive comments may deem the plans to be incomplete by the Department and the plans will be returned without further review. Notification that the applicant must submit a new application and any applicable fees required will be sent to the applicant and the developer upon such occurrence.

\_\_\_\_\_  
Signature

Date: \_\_\_\_\_